SQUADRON ENERGY

Conargo Wind Farm

Scoping Report

May 2024

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May 2024

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Acronyms and Abbreviations

Acronym	Definition
AHIMS	Aboriginal Heritage Information Management System
AHD	Australian Height Datum
BAM	Biodiversity Assessment Method
BBUS	Bird and Bat Utilisation Survey
BC Act	*Biodiversity Conservation Act 2016* (NSW)
BCS	Biodiversity, Conservation and Science
BDAR	Biodiversity Development Assessment Report
CASA	Civil Aviation Safety Authority
CLM Act	*Contaminated Land Management Act 1997* (NSW)
Crown Land Act	*Crown Land Management Act 2016* (NSW)
DAWE	Department of Agriculture, Water and Environment (now DCCEEW)
dB(A)	A-weighted noise or sound power level in decibels
DC	Direct Current
Commonwealth DCCEEW	Commonwealth Department of Climate Change, Energy, the Environment and Water (was DAWE)
DCP	Development Consent Plans
DPE	NSW Department of Planning and Environment (now DPHI)
DPHI	NSW Department of Planning, Housing and Industry
DPIE	NSW Department of Planning, Industry and Environment (now DPHI)
EEC	Endangered Ecological Community
EIS	Environmental Impact Statement
EMF	Electromagnetic Field
EMI	Electromagnetic Interference
EP&A Act	*Environmental Planning and Assessment Act 1979* (NSW)
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999* (Commonwealth)
EPI	Environmental Planning Instrument
EPL	Environment Protection Licence
GDE	Groundwater dependent ecosystem
GHG	Greenhouse Gas
GW	Gigawatts
GWh	Gigawatt hour
Ha	Hectares
kV	Kilovolt

Acronym	Definition
LALC	Local Aboriginal Land Council
LEP	Local Environmental Plan
LGA	Local Government Area
LSPS	Local Strategic Planning Statement
LVIA	Landscape and Visual Impact Assessment
MNES	Matter of National Environmental Significance
MW	Megawatt
MWh	Megawatt Hour
NAAA	National Agricultural Aviation Association
NEM	National Electricity Market
NPfI	*Noise Policy for Industry 2017*
NSW	New South Wales
NSW DCCEEW	NSW Department of Climate Change, Energy, the Environment and Water (was DPE)
NSW EPA	NSW Environment Protection Authority
OSOM	Oversize Over mass
PCT	Plant Community Type
POEO Act	*Protection of the Environment Operations Act 1997* (NSW)
RAAF	Royal Australian Air Force
REZ	Renewable Energy Zone
RFS	NSW Rural Fire Service
SAII	Serious And Irreversible Impacts
SEARs	Secretary's Environmental Assessment Requirements
SEPP	State Environmental Planning Policy
SIA	Social Impact Assessment
SSD	State Significant Development
TEC	Threatened Ecological Community
TfNSW	Transport for NSW
VNI West	Victoria to New South Wales Interconnector West

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1 Introduction

1.1 Project overview

Squadron Renewable Energy Developments Pty Ltd (the Proponent) is seeking development consent for the construction, operation, maintenance and decommissioning of the Conargo Wind Farm, which would include up to 53 wind turbine generators, a battery energy storage system, ancillary infrastructure and temporary facilities (the Project). The Project would have a generation capacity of approximately 300 megawatts (MW).

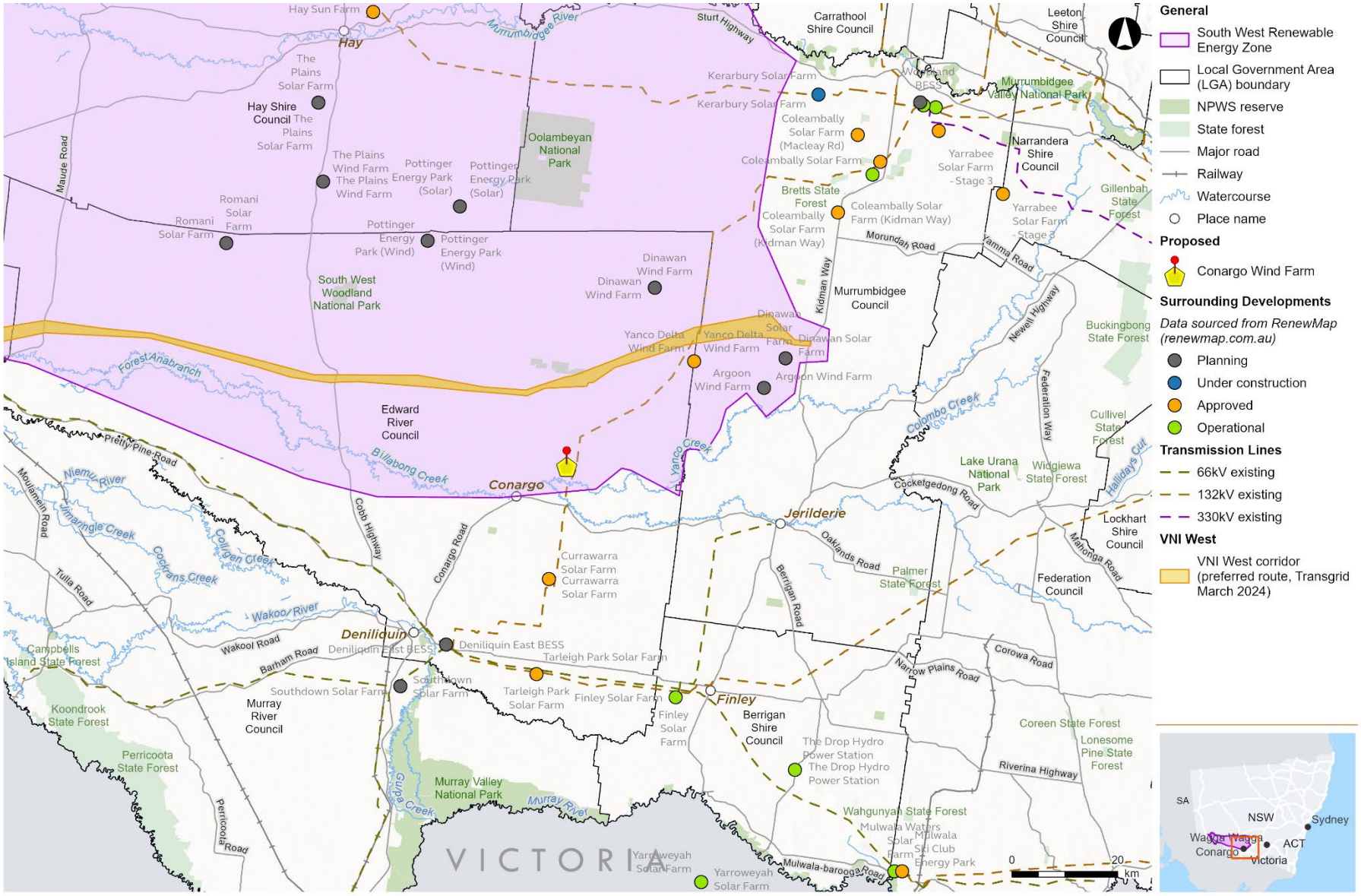
The Project would be located in the Edward River Local Government Area (LGA) and is around 13km from Conargo, New South Wales. The location and regional context of the Project is shown in Figure 1-1. A summary of the location is provided in Table 1-1.

Table 1-1 Location

Item	Details
Local government area	Edward River
State electorate	Murray
Suburb	Conargo
Address (Project Site)	526 Yanco Rd, Conargo 2710
Lot details	Located on 19 freehold lots including: 80/756318, 81/756318, 4/756318, 2/216550, 82/756318, 79/756318, 49/756318, 98/756318, 96/756318, 1/661423, 1/216550, 99/756318,93/756297, 92/756297, 125/756297, 126/756297, 124/756297, 121/756297, 120/756297 The Project Site also includes Crown land, Crown and / or Council roads.
Renewable energy zone (REZ)	South West

The Project is State Significant Development (SSD) as defined under *State Environmental Planning Policy (Planning Systems) 2021* (Planning Systems SEPP) and will require development consent under Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

Arcadis Australia Pty Ltd was engaged by the Proponent to prepare a Scoping Report. It has been delivered to identify the key environmental, social and economic matters that require further assessment in the Environmental Impact Statement (EIS) phase for the Project and to inform the preparation of the Secretary's Environmental Assessment Requirements (SEARs).



1:1,000,000 at A4 Date: 9/05/2024 Path: C:\Users\dn84926\ARCADIS\103015495 - Conargo Wind Farm Scoping Report - GIS\A_Current\B_Maps\Conargo_WindFarm_Scoping_A4L_v4.aprx\Conargo_WF_001_RegionalContext_A4L_v4 - Regional Context

Figure 1-1 Regional context

1.2 Project objectives

The objectives of the Project are to:

- Contribute to improving the security, stability and resilience of the national electricity market (NEM) through renewable energy generation and energy storage capacity
- Support the transition to renewable energy through additional, firmed capacity of approximately 300 MW
- Support Australia's commitments to reduce greenhouse gases and contribute to NSW achieving net-zero emissions by 2050 as set out in the NSW Climate Change Policy Framework
- Avoid and/or minimise environmental and community impacts wherever practicable, through careful design and implementation of best practice environmental management and mitigation
- Contribute to positive community and economic outcomes in the Edward River LGA.

1.3 The Proponent

The Proponent for the Project is Squadron Renewable Energy Developments Pty Ltd, part of the Squadron Energy and Tattarang group companies. Squadron Energy is an Australian-owned leading renewable energy company that develops, operates and owns renewable energy assets in Australia, with 1.1 gigawatts (GW) of renewable energy in operation and 900 MW under construction (Figure 1-2).

Squadron Energy are targeting a delivery of 14 GW of renewable energy by 2030, the equivalent of six million homes. This equates to one third of the renewable energy required for Australia to meet its 2030 renewable energy target of 82% (DCCEW, 2024).

Squadron Energy has proven experience and expertise across the lifecycle of energy projects, working with local communities to lead the transition to Australia's clean energy future. Squadron Energy is a signatory to the Clean Energy Council's Community Engagement Best Practice Charter for Renewable Energy Developments. This involves a voluntary set of commitments that the Proponent will uphold when developing and operating clean energy projects to engage respectfully with the communities in which they plan and operate projects, to be sensitive to environmental and cultural values and to make a positive contribution to the regions in which they operate.

The details of the Proponent are provided in Table 1-2.

Table 1-2 Proponent details

Proponent details	Details
Name	Squadron Renewable Energy Developments Pty Ltd
Postal address	PO Box 1708, Newcastle NSW 2300
ABN	84 653 587 172
Nominated contact	Alastair Smith, Head of Project Development
Contact details	info@conargowindfarm.com.au
Scoping Report	Prepared by Arcadis Australia Pty Ltd

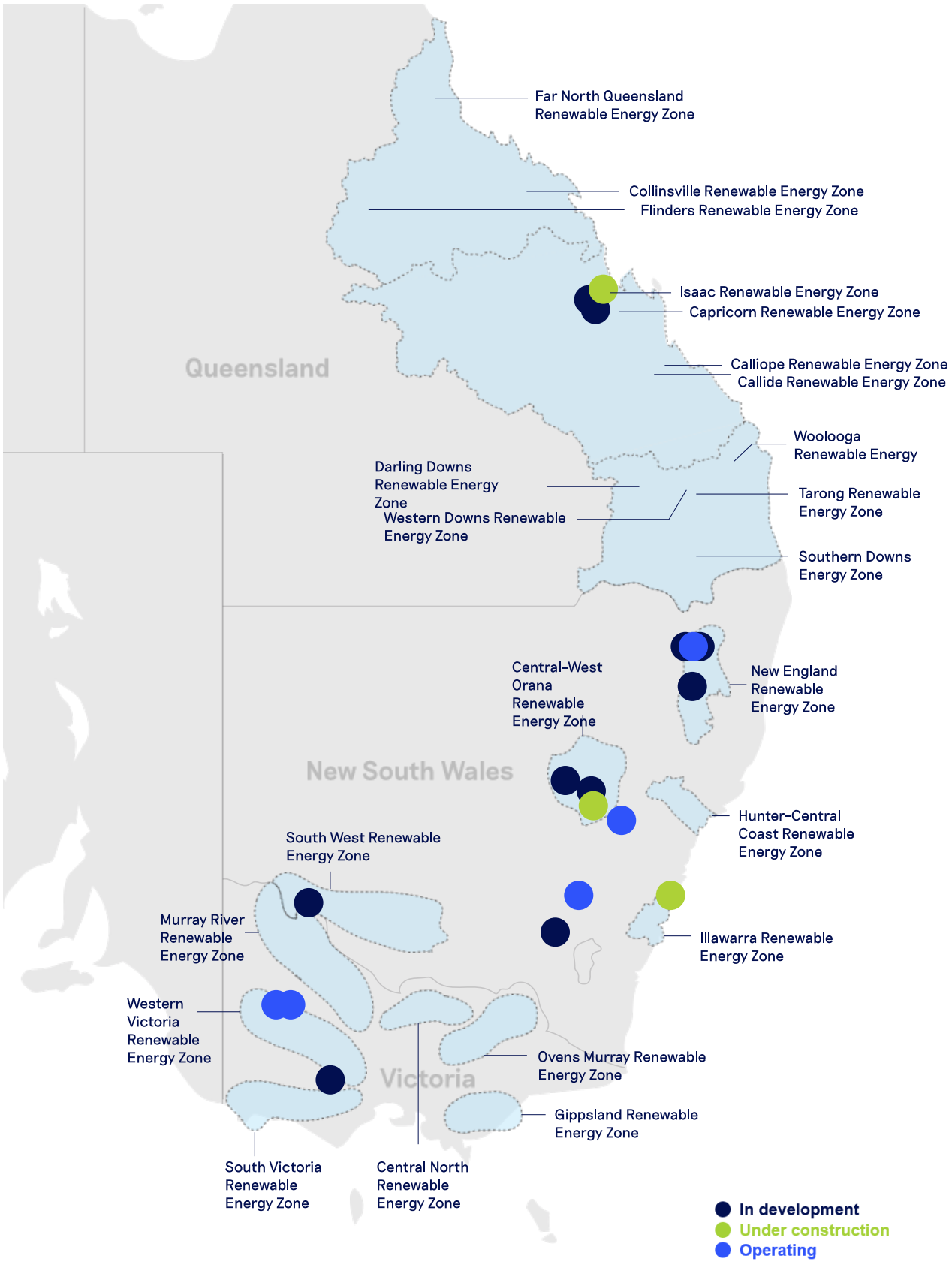


Figure 1-2 Squadron Enery Projects

1.4 Related development

Related development includes any:

- Existing or approved development that would be:
  - Incorporated into the Project
  - Operated in conjunction with the Project under a separate development consent or approval
- Development that is required for the Project but would be subject to a separate assessment.

At this stage, one related development has been identified and is described below.

1.4.1 Victoria to New South Wales Interconnector West

The Victoria to New South Wales Interconnector West (VNI West) is a proposed new 500 kV double circuit transmission line connecting the high voltage electricity grids in NSW and Victoria.

VNI West is being jointly developed by Transgrid and the Transmission Company Victoria. It will connect major projects; EnergyConnect in NSW and Western Renewables Link in Victoria. The preferred option runs from Transgrid's Dinawan substation north of Jerilderie in NSW to new substations proposed near Kerang and Bulgana in Victoria (Transgrid, 2024). A preferred corridor for VNI West is shown in Figure 1-1 and the timeline for VNI West is shown in Figure 1-3.

The Project is proposing to potentially connect to this transmission line. The alternative connection proposed is connection to the existing Transgrid 132 kV Deniliquin – Coleambally line which runs along the east of the Project.

Figure 1-3 VNI West timeline (Transgrid, 2023)

1.5 Project background

Squadron Energy has been investigating the potential to develop a renewable energy project in the area since 2021. Squadron Energy undertook further internal screening review in 2023 to determine the suitability of the Project to progress to the next stage of development. Specific consideration was given to:

- Estimated wind resource (speed and direction), potential marginal loss factors and grid connectivity
- Commercial viability, including consideration of constructability and operability
- Applicable Commonwealth, State and local legislation and guidelines to identify the relevant regulatory and permitting requirements

- Environmental and planning constraints that would influence the design and development of the proposed layout, including siting of wind turbine generators, access tracks and other project elements.

Ongoing refinement of the Project with consideration of the above will continue through the development of the EIS. Key principals that will be adopted to avoid, minimise or offset the impacts of the Project to the extent known at this scoping stage include:

- Minimise vegetation clearing (areas of higher conservation value and/or native vegetation will be strategically avoided, where possible)
- Preference use of previously disturbed land (i.e. land previously modified by agricultural operations, including cleared areas, established access tracks and local roads)
- Minimise disturbance (footprints for project infrastructure will be limited to the minimum area required)
- Protect significant Aboriginal cultural and historic heritage values (through the identification and evaluation of heritage sites as part of the preparation of the Aboriginal cultural and historic heritage assessments)
- Minimise direct and indirect impacts on neighbouring landholders (locating infrastructure away from nearby residences and adjoining properties, where possible)
- An iterative and flexible approach to design (responding to identified environmental and social impacts and constraints)
- Effective stakeholder engagement for developing enhancement or mitigation measures and maximising benefits of the Project.

1.6 Purpose of this Report

The purpose of this scoping report (report) is to support Squadron Energy's application to the Minister for Planning for planning approval of the Project under Part 4, Division 4.7 of the EP&A Act, with the first step to obtain SEARs for the EIS. The report aims to:

- Describe the Project in simple terms (Chapter 3)
- Include an analysis of feasible alternatives considered having regard to the objectives of the development, and identify the alternatives that will be investigated further in the EIS (Section 3.8)
- Give an early indication of community views on the Project and provide an overview of the community engagement that will be carried out during the preparation of the EIS (Chapter 5)
- Provide a preliminary assessment of the Project's potential social impacts, and the means which these social impacts are identified, assessed, and managed (Chapter 6)
- Identify the key matters requiring further assessment in the EIS and the proposed approach to assessing each of these matters, having regard to any relevant Government legislation, plans, policies or guidelines (Chapter 6).

This report has been prepared with regard to:

- *State significant development guidelines – preparing a scoping report* (the SSD Scoping Report Guideline) (DPE, 2022a)
- *Undertaking engagement guidelines for state significant projects* (the Engagement Guidelines) (DPE, 2022b)
- *Social impact assessment guideline for state significant projects* (the SIA Guideline) (DPE, 2023a)
- *Cumulative impact assessment guidelines for state significant projects* (the CIA Guidelines) (DPE, 2022c)

- *Wind Energy Guideline: For state significant wind energy development* (the Wind Energy Guidelines) (DPE, 2016a)
- *Wind Energy: Visual Assessment Bulletin for state significant wind energy development* (Visual Bulletin) (DPE, 2016b)
- *Wind Energy: Noise Assessment Bulletin for state significant wind energy development* (Noise Bulletin) (DPE, 2016c)
- *Draft Wind Energy Guideline: Guidance for state significant project wind energy development* (the draft Wind Energy Guidelines) (DPE, 2023b)
- *Draft Wind Energy Guideline: Technical Supplement for Landscape and Visual Impact Assessment* (2023 draft visual guideline) (DPE, 2023c)
- *Draft Wind Energy Guideline: Technical Supplement for Noise Assessment (2023 draft noise guideline)* (DPE, 2023d).

Table 1-3 provides a summary of the overarching requirements from the SSD Guideline for a scoping report and where they have been addressed. A detailed breakdown of the requirements from all the guidelines are included in **Appendix A**.

Table 1-3 Addressing of scoping report requirements

Requirement	Where addressed
A simple but accurate description of the Project	Chapter 3
The relevant strategic and statutory context	Chapter 2 and Chapter 4
Analysis of feasible alternatives considered having regard to the objectives of the development and identification of alternatives that will be investigated further in the EIS	Chapter 3
A summary of the findings of any early community engagement and a description of the engagement that would be carried out during the preparation of the EIS	Chapter 5
The identification of matters that would require further assessment in the EIS and how they would be assessed.	Chapter 6

1.7 Structure of this Report

The structure and content of this report is as per the SSD Scoping Report Guideline and is outlined in Table 1-4.

Table 1-4 Structure and content of this report

Chapter		Description
Chapter 1	Introduction	Introduces the Project, the Proponent and provides an outline of the structure of the document.
Chapter 2	Strategic context	Provides an outline of the need and justification of the Project, as well as a description of the strategic alternatives and locations considered.
Chapter 3	The Project	Describes the Project, including general construction activities and alternative considered.
Chapter 4	Statutory context	Provides an outline of the statutory approvals framework, including applicable legislation and planning policies.
Chapter 5	Engagement	Outlines the stakeholder and community engagement carried out to date and for consideration in the EIS.

Chapter		Description
Chapter 6	Proposed assessment of impacts	Summarises the proposed scope of investigations for the Project during the preparation of the EIS, based on the potential direct and indirect impacts identified in this Scoping Report.
Chapter 7	References	List of the information sources used in this Scoping Report.
Appendix A	Scoping Report compliance checklist	Compliance checklist of the requirements for a Scoping Report and where they have been addressed.
Appendix B	Scoping worksheet	Provides an overview of the matters requiring further assessment in the EIS by the level of assessment required.
Appendix C	Social impact assessment worksheet	Provide an overview of the likely social impacts of the Project and the anticipated level of assessment and effort required to address impacts for the Social Impact Assessment (SIA).
Appendix D	Cumulative impact worksheet	Provide an overview of the potential projects and maters that may require cumulative impact assessment consideration due to the interactions between the Project and relevant future projects in the same area and over similar timeframes.
Appendix E	Community engagement material	Evidence of community engagement carried out to date.
Appendix F	Wind turbine generator coordinates and dwellings	Preliminary wind turbine generator coordinates and dwellings within 8km of the Project.
Appendix G	Biodiversity species tables and supporting data	Biodiversity supplementary information.
Appendix H	Preliminary visual environmental assessment supporting information	Overlay of the available wind resource and results from the Multiple Wind Turbine Tool.

2 Strategic context

2.1 Strategic planning and policy context

Table 2-1 provides a summary of national, state, regional and local planning and policy contexts as relevant to the Project.

Table 2-1 Project alignment with strategic plans and policies

Strategy, plan or policy	Description	Project relevance
National Policy Context		
2015 Paris Climate Agreement	The Agreement provides a pathway for developed nations to assist developing nations in their climate mitigation and adaptation efforts while creating a framework for the transparent monitoring and reporting of countries' climate goals. Australia announced its ratification of the *Paris Agreement* on 10 November 2016.	As a large-scale renewable energy development, the Project will contribute to achieving Australia's greenhouse gas emission reduction targets.
National Electricity Market (NEM)	The NEM comprises a wholesale market for electricity sales and the physical system comprising transmission infrastructure.	The Project supports the continued operation of the NEM by contributing to the security of energy supply, specifically increasing the supply of renewable energy.
Climate Change Act 2022	The Act sets out Australia's greenhouse gas emissions reduction targets, to provide for annual climate change statements, to confer advisory functions on the Climate Change Authority, and for related purposes.	The Project would contribute to emission reductions required in this legislation through the uptake of renewable energy.
AEMO Integrated System Plan (ISP) 2022	The Integrated System Plan (2022 ISP) (Australian Energy Market Operator (AEMO), 2022) provides a roadmap for the NEM. The key objective is to support Australia's complex and rapid energy transformation towards net zero emissions, enabling low-cost firmed renewable energy and essential transmission to provide consumers in the NEM with reliable, secure and affordable power. The draft 2024 Integrated System Plan (2024 ISP) (AEMO), 2023) has recently been developed for consultation and is planned to be finalised and published in June 2024. The draft 2024 ISP is an update on the 2022 ISP.	The Project would contribute to addressing the objective of supplying renewable energy to provide consumers with reliable, and secure and affordable power.

Strategy, plan or policy	Description	Project relevance
State Policy Context		
NSW Electricity Strategy (2019)	The NSW Government's plan for a reliable, affordable, and sustainable electricity future. The purpose is to improve the efficiency and competitiveness of the NSW electricity market through an integrated approach to all demand and supply options. It encourages investment in lower cost generation and energy saving technologies and identifies "delivering more resilient electricity supplies' as a key action".	The Project would increase supply of electricity to market and contribute to sustainable electricity outcomes (wind generation and battery storage).
NSW Electricity Infrastructure Roadmap (2020)	The NSW government's 20 year plan to transform the electricity system into one that is cheap, clean and reliable. It is enabled by the *Electricity Infrastructure Investment Act 2020* and aims to shift towards a greener future in reducing carbon emissions.	The Project aligns with the roadmap through the provision of cheap and clean renewable energy.
Climate Change (Net Zero Future) Act 2023	Legislates NSW's targets to reduce GHG emissions by 50 per cent by 2030 and 70 per cent by 2035 to achieve net zero GHG emissions by 2050.	The Project would contribute to emission reductions required in this legislation through the uptake of renewable energy.
South West Renewable Energy Zone	The NSW Government has declared REZs across NSW to group new wind and solar power generation into locations where it can be efficiently stored and transmitted. The South West REZ was formally declared by the Minister for Energy under section 19(1) of the *Electricity Infrastructure Investment Act 2020* and published in the NSW Gazette on Friday 4 November 2022. The South West REZ was chosen by the NSW Government due to an abundance of high-quality wind and solar resources, proximity to existing and planned high voltage transmission including Project EnergyConnect, relative land-use compatibility and a strong pipeline of proposed projects. Energy Co expect the following outcomes from the South West REZ: • The South West REZ is expected to receive up to $2.8 billion in private investment by 2030 • At its peak, this REZ is expected to support over 2,000 construction jobs in the region. The South West REZ Access Scheme was published in the NSW Gazette on Friday 12 April 2024. The South West REZ Access Scheme outlines the procedures for granting access rights, gives an overview of how and when the amount of capacity granted may be increased, and sets the duration of access rights.	The Project is entirely within the South West REZ.

Strategy, plan or policy	Description	Project relevance
Regional and Local Policy Context		
Conargo Local Environmental Plan (LEP) 2013	LEPs provide the local statutory framework that guides development and land use decisions throughout NSW. They do this through zoning and development standards, which provide a framework for the way land can be developed and used. The particular aims listed under Section 1.2 of the Conargo LEP are to: • Protect and promote the use and development of land for arts and cultural activity, including music and other performance arts • Encourage sustainable economic growth and development in Conargo • Provide for a range of development opportunities that contribute to the social, economic and environmental resources of the area and support the long-term and economic viability of the local community • Protect, enhance and conserve agricultural land through the proper management, development and conservation of natural and human-made resources • Promote the efficient and equitable provision of public services, infrastructure and amenities • Conserve, protect and enhance the environmental and cultural heritage of Conargo • Identify, protect, conserve and enhance the natural assets of Conargo.	The Project is entirely within the Conargo LEP.
Edward River Local Strategic Planning Statement (November 2019)	Under the *Environmental Planning and Assessment Act 1979*, local councils use their Local Strategic Planning Statement (LSPS) to set out their planning priorities which meet the community's need and delivery State and Regional planning objectives. The Edward River Local Strategic Planning Statement includes their 20 year vision for land use planning, outlining how change will be managed to maintain the high levels of liveability and landscape quality.	The Project aligns with Edward River LSPS Planning Priority 6: Infrastructure and Planning Priority 7: Climate Change and Natural Hazards.
Community Strategic Plan 2022- 2025 Edward River Council	The purpose of the Community Strategic Plan is to identify our community's main priorities and aspirations for the and to make the planning process consider the issues and pressures that may impact the community.	The Project aligns with the key strategic outcome to "*Develop and maintain public infrastructure that supports local businesses to grow and attract new investment*".

Strategy, plan or policy	Description	Project relevance
Riverina Murray Regional Plan 2014	This plan was updated and finalised in January 2023. It guides planning for the Riverina Murray to be focused on its unique environment and aims to support the region in contributing to a net zero state. It includes an economic focus on integrated land use planning in reference to the South West REZ.	The Project planning will continue through an EIS project considering environmental and social impacts. The Project would contribute to diversification of a highly diversified economy.

2.2 Site setting and features

2.2.1 Local and regional community

The Edward River LGA is located in the Riverina Murray Region of south-western NSW, about 700km south west of the Sydney CBD and 300km north of the Melbourne CBD. The Edward River LGA covers an area of around 8,880km^2 and is bounded by Hay Shire in the north, the Murrumbidgee Council area and Berrigan Shire in the east, and the Murray River Council area in the south and west.

As of the 2021 Census, the Edward River LGA and township of Conargo had a population of 8,457 and 117 respectively. The Conargo township is surrounded by the nearby villages of Blighty, Mayrung, Pretty Pine, Wanganella and Booroorban. Residents of Conargo are primarily employed in the agriculture industry (grain sheep or grain beef farming and specialised sheep farming). The nearest population centre is Deniliquin (population of 7,432) which is about 50km south west of the Project Site. The location of Project relative to Conargo and Deniliquin is shown on Figure 2-1.

The Project Site consists predominantly of freehold land including 19 lots which are privately owned and used for agriculture (grazing and some cropping). There are some Crown and Council roads within the Project Site which will be considered, and consent requested during preparation of the EIS. The Project Site is zoned as RU1 Primary Production under the Conargo LEP. Land zoning of the Project Site and surrounding area is shown on Figure 2-2.

Figure 2-1 Local context

Figure 2-2 Land zoning context

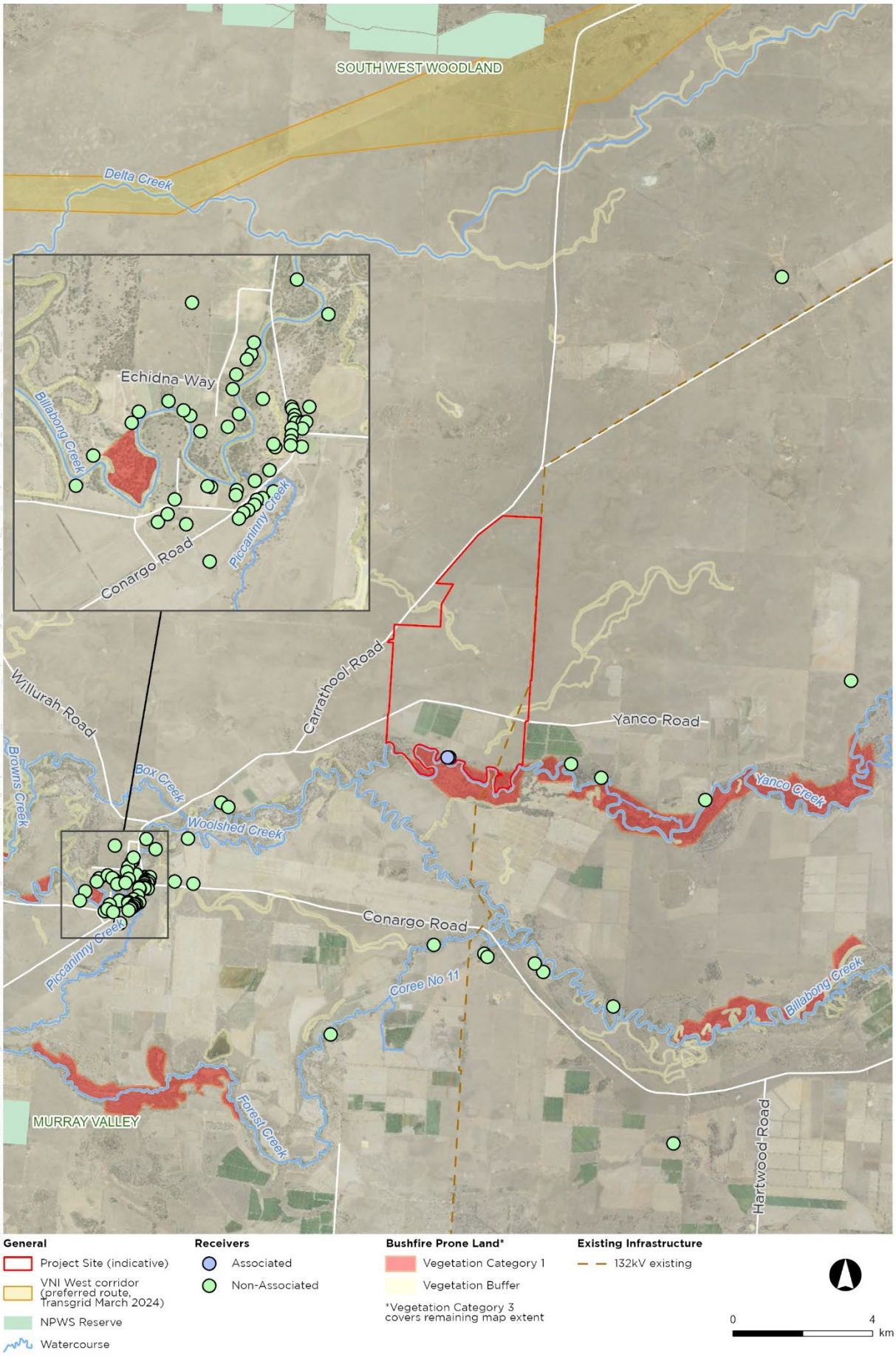


Figure 2-3 Nearby dwellings and hazards

2.2.2 Natural and built environment

The Project Site, while primarily used for agriculture, contains areas of native vegetation according to NSW State Vegetation Type Mapping. The dominant vegetation is grassland mapped as Plant Community Type (PCT) 46, however multiple other PCT's are mapped in the south of the Project Site, primarily associated with the riparian zone of Yanco Creek. Biodiversity constraints are mapped and discussed in Section 6.4.

A network of local public roads provide access to the Project Site. Carrathool Road borders the western boundary of the Project Site and Yanco Road intersects the Project Site in an east west alignment. The Project Site contains four buildings (all of which are unoccupied houses or sheds) located in the southern portion of the Project Site and are associated with the host landowners. An existing Transgrid 132 kV Deniliquin – Coleambally line runs along the east of the Project Site. The nearby road network, dwellings and transmission line are shown on Figure 2-3.

2.2.3 Environmental risks and hazards

Key risks or hazards (such as flooding, bushfire prone land, contaminated land, steep slopes and potential landslips, mine subsidence prone land, coastal hazards and climate change) that have been identified for the Project include:

- Flooding (refer to Section 6.9)
- Bushfire prone land (refer to Section 6.10)
- Climate change (refer to Section 6.12).

Given its flat topography the Project Site and proximity to Yanco Creek, it is likely that some areas of the Project Site would be located on or in proximity to flood prone areas. The Project is also on land mapped as Vegetation Category 1 and Vegetation Category 3 bushfire prone land (as shown on Figure 2-3). Climate risks may include increased frequency and severity of extreme rainfall events (potentially increasing risk of flooding), increased average temperatures and frequency of heatwaves and increased severity and frequency of bushfires.

All environmental risks and hazards would be considered and mitigated as part of the design development for the Project.

2.3 Cumulative impact consideration

The Project would be in the South West REZ, which is an area of focus for other existing and proposed large scale renewable energy projects. When all existing and proposed developments are considered as a whole, it would be expected that the region may experience cumulative impacts in some locations.

Approved and proposed renewable energy projects (based on current publicly available information) within 50km of the Project are shown in Table 2-2. These projects have the potential to result in cumulative impacts. It is anticipated that there will be additional potential future renewable energy projects within the vicinity of the Project that are not publicly known at the time of preparing this report. Surrounding projects in the region are shown on Figure 1-1.

Given the number of approved and proposed renewable energy projects, the potential for cumulative environmental, social and economic impacts will require detailed consideration during preparation of the EIS for the Project, having regard to the Cumulative Impact Assessment Guidelines. Discussion of the cumulative impact assessment approach for the Project is included in Section 6.11.

Table 2-2 Surrounding renewable energy projects

Project	Application	Status	Indicative distance from Project (km)
Currawarra Solar Farm and BESS	SSD-8437	Approved	17
Yanco Delta Wind Farm and BESS	SSD-41743746	Approved	27
Dinawan Wind Farm	SSD-50725708	Planning	33
Argoon Wind Farm and BESS	SSD-64935522	Planning	33
Tarleigh Park Solar Farm and BESS	SSD-8436	Approved	36
Deniliquin East Battery Energy Storage System	SSD-61612229	Planning	37
Dinawan Solar Farm and BESS	SSD-50725959	Planning	42
Finley Solar Farm	SSD-8540	Operational	45
Bullawah Wind Farm	SSD-50505215	Planning	45
Pottinger Energy Park (Wind)	SSD-59235464	Planning	47
Southdown Solar Farm	SSD-10458	Planning	49
Pottinger Energy Park (Solar)	SSD-59254709	Planning	50

2.4 Planning and other agreements

Where dwelling owners are hosting Project infrastructure or have entered into an Agreement, they are referred to as 'Associated' dwellings. All other dwellings are referred to as 'non-Associated' dwellings.

An agreement is proposed with the occupants of the host dwelling within the Project Site. At this stage, no other agreements have been entered into with neighbouring properties or other groups. The Proponent may seek to enter into additional Benefit Sharing Agreements in consultation with nearby neighbours, or if relevant EIS assessments identify that relevant impact criteria cannot be met at non-Associated dwellings.

Associated and non-Associated landholders within and surrounding the Project Site are shown on Figure 2-1.

Squadron is committed to ensuring there are local benefits as a result of the Project and will continue to consult with landowners, Edward River Council and the local community throughout development of the EIS. Agreements may relate to the funding of infrastructure, road upgrades or items to support local communities to ensure there are local benefits as a result of the Project.

2.5 Project Justification

Over the last 10-15 years, there has been a steady increase in the number of renewable projects that are generating electricity for use in the NEM, while more of the older traditional coal fired power stations have been retired and decommissioned. This transition from thermal generation to renewable generation is planned to continue.

The Federal, State and Local Governments have put in place a number of plans, strategies and roadmaps, to progress and optimise consumer benefits through a transition of the energy market. As identified in Section 2.1, the Project aligns with these objectives. In particular, the NSW Government is leading the

development of REZs across NSW. Five REZs have been announced in NSW and EnergyCo has been appointed as the Infrastructure Planner for the South West REZ. The South West REZ Access Scheme was published in the NSW Gazette on Friday 12 April 2024 and is expected to see up to $2.8 billion in private investment by 2030 including over 2,000 construction jobs in the region.

The Project is justified because it:

- Would be located in the South West REZ, which has been identified by the NSW Government as a priority area for the delivery of new renewable energy generation and storage, supported by transmission infrastructure
- Is suitably located in a region with ideal climatic and physical conditions for large-scale wind energy generation
- Is close to existing or proposed transmission line infrastructure providing a connection to dispatch electricity to the NEM
- Would generally be compatible with existing agricultural land uses
- Is strategically located to minimise nearby receivers
- Would create employment opportunities and benefits to the local and regional economy.

3 The Project

3.1 Project components

Squadron Energy is seeking development consent for the construction, operation, maintenance and decommissioning of the Conargo Wind Farm, which would include up to 53 wind turbine generators, a battery energy storage system, ancillary infrastructure and temporary facilities. The Project would have a generating capacity of approximately 300 MW. The power generated by the Project (from wind turbine generators and released from battery storage) would feed into the electricity grid (NEM) via direct connection to either the existing Transgrid 132 kV Deniliquin – Coleambally transmission line or the proposed VNI West transmission line.

The key components of the Project include:

- Up to 53 wind turbine generators, with a blade-tip height of up to 270m and generation capacity of approximately 300 MW
- Approximately 150 MW/1,200 MWh battery energy storage system (type to be determined)
- Permanent ancillary infrastructure including:
  - Operation and maintenance compounds
  - Substation and switch station
  - Internal roads and hardstands
  - Transmission lines (underground and overhead cabling)
  - Wind monitoring masts
  - Telecommunication facilities
  - Utility services
  - External road upgrades (subject to blade sizing and transport routes based on EIS traffic assessment)
- Temporary facilities and activities for use during the construction phase or for discrete maintenance activities including:
  - Site compounds, laydown and storage areas
  - Stockpiling and rock crushing facilities
  - Concrete batch plants
  - Temporary roads
  - Temporary monitoring masts.

The conceptual Project layout is shown on Figure 3-1. Refinement of the Project will continue during the EIS as potential environmental, social and amenity impacts are identified. The key principals to avoid, minimise, mitigate or offset these impacts are described in Section 1.5.

The indicative Project components are provided in Table 3-1, noting these would be subject to further design and refinement during the EIS and design process.

Table 3-1 Indicative Project components

Project component	Approximate dimensions	Quantity
Wind turbine generators		
Wind turbine generator tip height (from ground to top of blade tip)	Up to 270m	Up to 53
Tower (hub) height	125-160m	
Wind turbine generator foundations (excavation size)	35m diameter	
Wind turbine generator hardstands	70m x 75m	Up to 53
Battery energy storage system		
Electrical plant compound	250m x 250m	1
Capacity	150MW / 1,200MWh	
Ancillary infrastructure		
Internal roads and drainage	9m wide (subject to construction requirements)	N/A
Substation	250m x 250m	Up to 2
Operation and maintenance compound	150m x 150m	To be determined
Transmission lines (overhead / underground)	Extent to be determined based on field electrical optimisation	N/A
Permanent meteorological masts	At hub height (footings are 1m^2 per mast)	To be determined
Telecommunication facilities, utility services and external road upgrades	Subject to detailed design	To be determined
Temporary facilities		
Site compounds and offices, laydown areas (including equipment, stockpile and material storage), concrete (or asphalt) batching plants, rock crushing facilities and temporary access roads	Variable. Subject to detailed design and located within Project Site.	To be determined
Temporary meteorological masts	Up to hub height	Up to 12

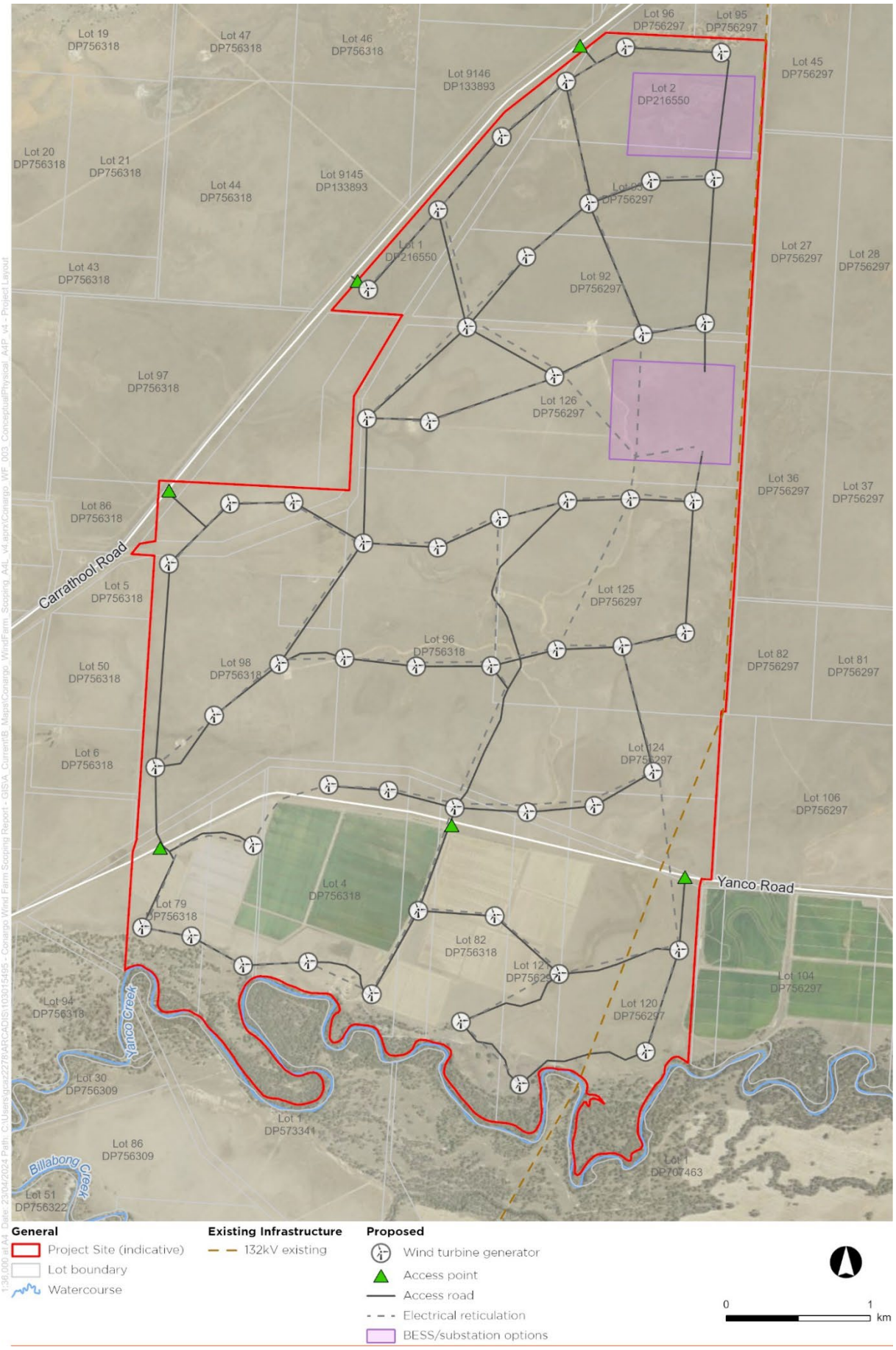


Figure 3-1 Preliminary Project layout

3.1.1 Wind turbine generators

The key components of a wind turbine generator are described in Table 3-2 and shown in Figure 3-2. The wind turbine generators will be three-bladed with the rotor and nacelle mounted on a tower with an internal ladder or lift.

Table 3-2 Wind turbine generator components

Wind Turbine Generator component	Description
Design height	Wind turbine generator designs continue to evolve, with a trend towards larger wind turbine generators. At the current scoping stage, the Project has been designed to accommodate wind turbine generators of up to 270m in height. Final numbers and power output will be dependent on the final geographic footprint as well as outcomes of the various engineering, environmental and social studies and is subject to change. Any changes to the design height will be assessed as part of the EIS, with a final height proposed for approval.
Foundation	Two types of foundation for the wind turbine generators may be required for the Project pending geotechnical investigation of the ground conditions across the Project Site including slab (gravity) foundation or rock anchor foundation.
Towers	The supporting tower structure of a wind turbine generator is typically comprised of a reducing cylindrical tower made from either a welded steel shell, concrete, or a concrete steel hybrid, fitted with an internal ladder and lift.
Nacelle	The nacelle is the housing constructed of steel and fibreglass that is mounted on top of the tower and is typically around 15 – 18m long, 4.5m high and 4.5m wide (depending on the Wind Turbine Generator model). It encloses the gearbox, generator, transformers (wind turbine generator model dependant), motors, brakes, electronic components, wiring and hydraulic and lubricating oil systems. Weather monitoring equipment located on top of the nacelle will provide data on wind speed and direction for the automatic operation of the Wind Turbine Generator. Obstacle hazard lighting if required, would be installed to the top of the nacelle
Rotor	The wind turbine generator rotor drives the generator within the nacelle producing electrical output. In general, a larger rotor enables greater generation capacity, however site-specific wind conditions influence the rotor selected for installation at any given wind farm.
Blades	Wind turbine generator blades are typically made from glass fibre reinforced with epoxy or plastic attached to a steel hub and include lightning protection inside the blade
Generator transformer	Wind Turbine Generators produce electricity at low voltage which is then stepped up to medium voltage (33 kV or greater) by a transformer located in either the nacelle, within the base of the tower, or adjacent to the base of the tower on a concrete pad. The footprint of the transformer is small as it would sit on the Wind Turbine Generator footing and/or the hardstand assembly area

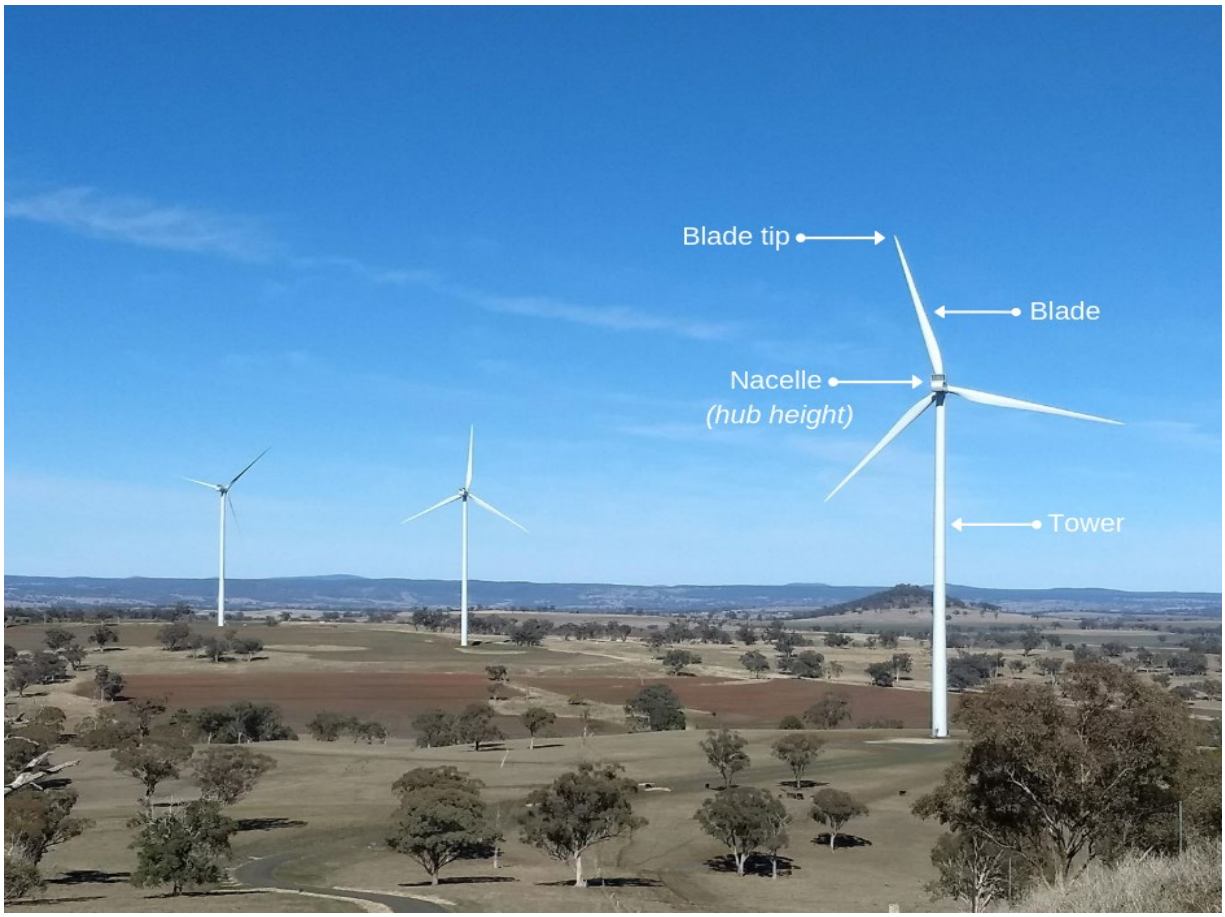


Figure 3-2 Components of a wind turbine generator as shown at Sapphire Wind Farm

3.1.2 Battery energy storage system

Large-scale battery energy storage systems allow for the storage and discharge of energy and support stabilising the supply of electricity to the NEM. The indicative electrical capacity of the battery storage is up to 150 MW / 1,200 MWh, but this is not intended as an upper limit and will be subject to design.

Due to consistent evolution in battery storage technology, the proposed battery technology and location would be refined during the EIS. A range of technologies are under consideration, including lithium-ion, flow (vanadium, iron chloride, or zinc) and compressed air.

The battery energy storage system would be located in a compound and comprised of gravel hardstand or concrete slab, buildings, shipping containers and other infrastructure to contain the chosen technology and to connect the battery storage, wind turbine generators, and substations via underground and/or overhead cables. The battery energy storage system may be constructed as a stand-alone facility or as a combined facility co-located with other compounds.

3.1.3 Other permanent ancillary infrastructure

Other ancillary infrastructure necessary for the operation of the Project is described in Table 3-3.

Table 3-3 Permanent ancillary infrastructure

Permanent ancillary infrastructure	Description
Wind Turbine Generator hardstands	Hardstands are required adjacent to each Wind Turbine Generator location for the assembly, erection, maintenance, repowering and/or decommissioning activities. Hardstands will be surfaced with pavement material and maintained throughout the construction and operational life of the Project.
Internal roads and drainage	Internal roads will be established within the Project Site for the construction, operation, repowering and/or decommissioning of the Project, from the public road access locations, Wind Turbine Generators, the battery energy storage system, substations, and other permanent and temporary facilities. Internal roads are planned to follow existing farm tracks where practicable. Internal roads will be surfaced with pavement material and maintained throughout the construction and operational life of the Project.
Substation	Substations include the infrastructure required to collect the internal electrical reticulation to increase the voltage for transmission to connect to the grid, and the infrastructure to physically connect to the grid (switching station).The typical substation arrangement will include step-up transformers, an array of cable marshalling, busbars, switchgear and protection, various voltage and current transformers, operation and facilities building with parking, communication facilities and tower, diesel generator, lighting, a buried earth grid, lightning masts, power conditioning equipment, a reactive power control system, and network support equipment as agreed with Transgrid.
Operation and maintenance (O&M) compound	One or more permanent O&M compounds will be established for the day-to-day operation of the Project. Each O&M compound may include lay down areas, site operations facilities and services buildings, workshop, storage, parking and other facilities for operations staff.
Transmission lines (overhead / underground)	A series of underground and overground transmission lines are proposed to conduct electricity generated by the Wind Turbine Generators and would connect to either the existing Transgrid 132 kV Deniliquin – Coleambally transmission line or proposed VNI West transmission line.
Permanent meteorological masts	Meteorological masts, up to hub height of the Wind Turbine Generators, will be installed on-site (final quantity subject to AEMO requirements relative to final to-be-constructed wind farm layout). The purpose of these masts is to aid in performance monitoring of the Wind Turbine Generators. The permanent meteorological masts would be of a guyed, narrow lattice or tubular steel design.
Telecommunication facilities	Telecommunications facilities providing for transmission of voice, data, image, graphic and video information are proposed to be installed on site at standalone locations or onto wind farm infrastructure such as permanent masts.
External road upgrades	Subject to blade sizing and transport routes based on oversize over mass vehicles, external road upgrades may be required. This would be verified during the EIS.

Permanent ancillary infrastructure	Description
Utility services	The Project would be connected to Transgrid's transmission network and when not generating will draw a small amount of electricity from the grid. Backup and emergency power at the substations may be supplied by a local 11 kV distribution line, on-site batteries and/or a standalone diesel generator. Two separate and independent telephone communications facilities (optic fibre and microwave) will be required to be installed between the substations to enable safe remote monitoring and control of the Project. Operational water requirements will be provided to the proposed facilities and auxiliary services building from a storage tank designed to collect water from roof drainage and augmented by potable water delivered by tankers. An approved septic system or composting system will be installed to treat minor quantities of wastewater, subject to securing the relevant authorisation. Other waste will be classified and removed from the Project Site to an approved facility (landfill, recycling etc).

3.2 Project area

The Project Site comprises an area of about 2,295 ha.

The EIS will include a development corridor within the Project Site which further details the envelope within which the infrastructure would be placed. The development corridor would provide the flexibility for the detailed design of the Project while also allowing a detailed environmental assessment process to be completed with relevant constraints avoided and setbacks applied. This flexibility allows the most suitable technologies and types of infrastructure to be identified and deployed for use in the Project based on market conditions and availability. It is estimated that the land disturbance area would be 11% of the Project Site (around 249 ha).

Known restrictions or covenants that apply to the land include an existing Transgrid easement, Crown land and Crown and/or Council roads within the Project Site, and Yanco Creek adjacent to the Project Site. These have been considered as part of the preliminary project layout and relevant setbacks will be applied through further detailed design during preparation of the EIS.

3.3 Project phases and timing

Construction works will commence as soon as practicable following Project approval and secondary approvals, contractor selection, detailed design, procurement processes and a final investment decision. At this stage, construction is estimated to commence in 2027.

Squadron Energy proposes to construct the Project as a single stage of development; however this would be subject to ongoing review depending on factors such as grid connection capacity. An overview of the overarching Project phases and timing is provided in Table 3-4.

Table 3-4 Project phase

Project phase	Status and timing estimate
Planning and approvals	In progress, aiming to be completed in 2026
Construction and commissioning	Commencing in 2027 for a period of up to 24 months
Operation and maintenance	Planned to operate in 2028/2029 with an estimated operational life of 30 years
Decommissioning	At the end of its operational life

3.4 Construction

The key construction facilities and activities are described in Table 3-5. The permanent access tracks required for the Project would be constructed and used during the construction phase. An existing Transgrid 132 kV Deniliquin – Coleambally line runs along the eastern boundary of the Project Site. Connection to this or the VNI West (alternative transmission line connection option) would likely involve the construction of a new substation.

Table 3-5 Construction facilities

Key construction facilities	Description
Site compounds and offices	The construction (and any major maintenance) phase will require temporary infrastructure such as portable offices, toilet facilities and parking bays within temporary site compound or co located with substations or other permanent sites, particularly during early phases, at work fronts, and at remote settings or for contractor establishment. Temporary construction compounds will be typical of that used at construction sites. An area approximately 150m x 150m will be retained for permanent use during the life of the Project as an operations and maintenance compound as described in Table 3-3.
Laydown areas (including areas for equipment, stockpile and material storage)	Laydowns areas will be set out to maximise construction efficiencies and minimise waste being exported from the Project Site. These areas will most likely be co-located with permanent and ancillary infrastructure as required. Laydown areas would generally be used for: • Material and equipment storage • Stockpiling excess soils for reuse, steel or timber for tower or pole construction, vegetation matter or resource requirements • Work areas to construct watercourse crossings for internal roads/cabling • Truck turnarounds
Rock crushing facilities and concrete (or asphalt) batching plants	Temporary rock crushing and concrete or asphalt batching plants are proposed to process aggregate and concrete for the wind turbine generator foundations, electrical infrastructure, and Internal Roads, as well as asphalt if required for Internal Roads.

3.5 Transport and access

Subject to wind turbine generator selection and a review of the available transport routes for oversize over mass (OSOM) vehicles, external road upgrades may be required. The Port of Newcastle is considered the likely port of entry however other potential entry ports include (but are not limited to) Port Kembla, Port Adelaide and Geelong Port.

Procurement of resources required for the Project may be sourced from suppliers local to the Project and may require the use of public roads. The routes used to move the resources through the surrounding towns and road network will be along the major road network and standard heavy vehicle road network, or alternatively along routes permitted.

Minor temporary construction roads, tracks, or even light vehicle movements may be required to facilitate site access for light vehicles and OSOM vehicles to the Project including the erection of/access to overhead transmission lines, work front construction and maintaining environmental management measures and monitoring.

During the preparation of the EIS, the proponent will consult closely with key stakeholders to assess whether existing accommodation facilities in the local area have sufficient capacity for the Project's construction workforce.

3.6 Operation

Once complete, the Project will operate 24 hours per day, seven days per week with the operations and maintenance team attending site during standard working hours, unless responding to an alarm, fault, or undertaking major maintenance works. Ongoing monitoring and maintenance would be required, including maintenance of the Wind Turbine Generators, associated infrastructure, vegetation, and internal access tracks.

It is expected that the Project would operate for 30 years before any major replacements or refurbishments would be required. At a point in time prior to this, Squadron Energy would consider whether to either re-permit and repower, or decommission the Project based on equipment performance, equipment condition and commercial viability.

3.7 Decommissioning

Decommissioning of the Project would involve dismantling the Wind Turbine Generators and transporting them offsite for disposal or reuse, with preference given to reusing or recycling Wind Turbine Generator components where possible. Land impacted by the Project would be appropriately rehabilitated to near prior condition or to the condition of adjacent land at the time of decommissioning in consultation with the affected landholders. If not required for ongoing farming/fire access purposes, internal roads and hardstands would be removed.

3.8 Project alternatives

3.8.1 Do nothing

The 'do nothing' scenario would allow for the continued use of the Project Site for agricultural production, however it would also not deliver the Project benefits listed in Section 2.5, which include contributions to the development of the South West REZ and supporting Australia's and the State's transition towards clean and renewable sources of energy.

The local area and broader region would not realise the economic benefits to local and regional communities provided by direct employment opportunities, benefit sharing opportunities and flow-on effects.

3.8.2 Alternative site

Alternatives to the Project Site were considered as part of the site identification process, including other potential sites in NSW. As identified in Section 1.5, specific consideration was given to:

- Estimated wind resource (speed and direction), marginal loss factors and grid connectivity
- Commercial viability, including consideration of constructability and operability
- Applicable Commonwealth, State and local legislation and guidelines to identify the relevant regulatory and permitting requirements

- Environmental and planning constraints that would influence the design and development of the proposed layout, including siting of Wind Turbine Generators, access tracks and other project elements
- The social acceptability of the wind farm by the local community and stakeholders.

The primary constraint in considering locations elsewhere in NSW, including outside of the REZs, is the distance from the transmission network – both existing and planned. Alternatives which are further away from VNI West (or the existing adjacent transmission line) need long transmission lines and easements to connect into the network, which come with additional environmental and social impacts. Additionally, based on broad-scale wind modelling, the Project Site is expected to have viable estimated wind speed of approximately 7.9 m/s (Global Wind Atlas, 2024) (Appendix H). As such, the selected Project Site is considered optimal for development of the Project.

3.8.3 Preferred option and alternative layouts

Environmental and social constraints have, and will continue to be, a key consideration during the refinement of the Project. The indicative Project layout has been the subject of an iterative design process that has been informed by proximity to future grid connection points, existing connection points, leaseholder consultation, telecommunication infrastructure and preliminary environmental constraints information.

The Project Site and surrounds are highly suitable for renewable energy developments, aligning with the Project objectives in Section 2.1. The underpinning selection factors for the Project Site included:

- Positioning within the South West REZ
- Landowner appetite for hosting project infrastructure
- Reliable wind resource
- Generally flat topography and land area available to microsite infrastructure and avoid constraints (subject to further assessment)
- Proximity to existing and proposed transmission infrastructure
- Distance from sensitive receivers.

As identified in Section 3.2, the final development corridor will be defined as part of the preparation of the EIS and will be informed by the outcomes of the key EIS technical assessments and outcomes of engagement. Key principals that will be adopted to continue avoid, minimise or offset the impacts of the Project are identified in Section 1.5.

4 Statutory context

Legislation that is relevant to the Project has been included in Table 4-1. The relevant statutory requirements for the Project would be outlined in further detail in the EIS.

Table 4-1 Statutory requirements for the Project

Matter	Requirements for the Project
Power to grant consent	The EP&A Act and the *Environmental Planning and Assessment Regulation 2021* (EP&A Regulation) are the primary pieces of legislation that regulate land use planning and development assessment in NSW. This legislation is supported by a range of environmental planning instruments, including State Environmental Planning Policies (SEPP) and Local Environmental Plans (LEP). Part 4 of the EP&A Act establishes the framework for assessing development that is permissible with consent. Section 4.36(2) provides for the declaration of a project as SSD: *(2) A State environmental planning policy may declare any development, or any class or description of development, to be State significant development.* Clause 2.6 of the *State Environmental Planning Policy (Planning Systems) 2021* (Planning Systems SEPP) states that development is declared to be SSD for the purposes of the EP&A Act if: *(b) The development is specified in Schedule 1 or 2.* Schedule 1, Clause 20 of the Planning Systems SEPP determines 'electricity generating works 'to be SSD if it meets the following criteria: *'Development for the purpose of electricity generating works or heat or their co-generation (using any energy source, including gas, coal, biofuel, distillate, waste, hydro, wave, solar or wind power) that:* *(a) has a capital investment value of more than $30 million, or* *(b) has a capital investment value of more than $10 million and is located in an environmentally sensitive area of State significance'* The Project is a development for the purpose of electricity generating works and exceeds the threshold for SSD with a capital investment value of more than $30 million. Under Section 4.5 of the EP&A Act the consent authority for SSD is the Minister for Planning. The Minister for Planning has issued a general delegation of the consent authority function for SSD projects to the Independent Planning Commission in instances where more than 50 public objections are received on the application, the applicant has made a reportable political donations disclosure and/or Edward River Council objects to the Project.
Permissibility	***Conargo Local Environmental Plan 2013* (Conargo LEP 2013)** The Project is zoned as RU1 Primary Production under the Conargo LEP 2013. Electricity generating works are prohibited on land zoned RU1 under the Conargo LEP 2013. ***State Environmental Planning Policy (Transport and Infrastructure)* 2021 (Transport and Infrastructure SEPP)** • Clause 2.36(1)(b) of the Transport and Infrastructure SEPP states 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 (i.e. a non-residential zone). The Project Site is zoned as RU1 (Primary Production) which is a prescribed rural zone. Therefore, the Project is permissible with consent. • Clause 2.7(1) of the Transport and Infrastructure SEPP states that the provisions of the Transport and Infrastructure SEPP prevail where there are inconsistencies with any other Environmental Planning Instruments (EPIs), including LEPs. Due to Clause

<table>
<tr><th>Matter</th><th>Requirements for the Project</th></tr>
<tr><td></td><td>2.36(1)(b) and Clause 2.7(1) of the Transport and Infrastructure SEPP, the Project is permissible with development consent.
• Clause 2.42 of the Transport and Infrastructure SEPP sets out provisions that the consent authority must have regard to when determining a development application for solar or wind electricity generating works on land in a regional city. A regional city means an area of land identified as “subject land” on the Regional Cities Map. The Project is not mapped on the Regional Cities Map. Accordingly, this provision does not apply to the Project.
• Clause 2.48 of the Transport and Infrastructure SEPP sets out provisions related to electrical easements and power lines in which the consent authority must give written notice to the electricity supply authority for the area in which the development is to be carried out, inviting comments about potential safety risks and take into consideration any response to the notice that is received within 21 days after the notice is given. Clause 2.48(1a, 1b and 1d) are considered relevant to the Project, subject to EIS development.</td></tr>
<tr><td>Commonwealth approvals</td><td>Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)
The Commonwealth EPBC Act establishes the Commonwealth’s role in environmental assessment, biodiversity conservation and the management of protected areas.
Under the EPBC Act, a referral to the Commonwealth Department of Climate Change, Energy, Environment and Water (DCCEEW) is required for proposed ‘actions’ that have the potential to significantly impact on any Matters of National Environmental Significance (MNES) or the environment of Commonwealth land (including leased land).
Current matters of MNES are:
• World heritage properties
• National heritage places
• Wetlands of international importance (often called ‘Ramsar’ wetlands after the international treaty under which such wetlands are listed)
• Nationally listed threatened species and ecological communities
• Listed migratory species
• Commonwealth marine areas
• The Great Barrier Reef Marine Park
• Nuclear actions (including uranium mining)
• A water resource, in relation to coal seam gas development and large coal mining development.
The EPBC Act also requires Commonwealth approval for any activity that will, or is likely to have, a significant impact on Commonwealth land. Part of the Project may be constructed on Crown land.
A search of the EPBC Act Protected Matters Search Tool was undertaken on 6 March 2024. The results of the Protected Matters search are provided in Table 4-2. Note that despite the selected buffer of MNES within 30km of the Project, the search tool in some cases identifies items that occur well outside the buffer (such as Wetlands of International Importance).
Table 4-2 Matters of National Environmental Significance within 30km of the Project
<table>
<tr><th>MNES</th><th>MNES within 30km of the Project</th></tr>
<tr><td>World Heritage Properties</td><td>None</td></tr>
<tr><td>National Heritage Place</td><td>None</td></tr>
<tr><td>Wetlands of International Importance</td><td>5</td></tr>
<tr><td>Great Barrier Reef Marine Park</td><td>None</td></tr>
</table></td></tr>
</table>

Matter	Requirements for the Project
	Commonwealth Marine Area: None Listed Threatened Ecological Communities: 5 Listed Threatened Species: 43 Listed Migratory Species: 10 An EPBC Referral will be lodged to determine whether the Project requires formal assessment and approval under the EPBC Act as a controlled action or not. If the Project is determined to be a controlled action, it is proposed that the Project would be assessed under the bilateral agreement between the NSW and Commonwealth Government.
	Native Title Act 1993 An objective of the Commonwealth *Native Title Act 1993* is to recognise and protect native title. Section 8 states that the *Native Title Act 1993* is not intended to affect the operation of any law of a State or a Territory that is capable of operating concurrently with the Act. Searches of the registers maintained by the National Native Title Tribunal indicate there are no native title claims or any indigenous land use agreements registered with respect to land proposed for the Project. The local Aboriginal Land Council for the project site is Deniliquin Local Aboriginal Land Council and Cummeragunja Local Aboriginal Land Council.
	Civil Aviation Act 1988 The primary aim of the *Civil Aviation Act 1988* is to establish a regulatory framework for maintaining, enhancing and promoting the safety of civil aviation. **Civil Aviation Regulation 1988** The regulation requires that obstacles with a height above 100m at ground level (e.g. turbines and meteorological monitoring masts) are reported as tall structures for inclusion in the vertical obstacle database and on appropriate aeronautical chart. A detailed assessment in accordance with the regulations and consultation with the relevant agencies (RAAF, CASA, NAAA) will be undertaken as part of the preparation of the EIS. Reporting of tall structures to the RAAF is required under the *Civil Aviation Regulations 1988*. If an activity poses a risk to aircraft operations within a certified aerodrome, an Air Space Change Process will apply.
Other approvals	***Crown Land Management Act 2016*** Authority to use, traverse, access or build infrastructure on Crown land and roads is required under the *Crown Land Management Act 2016* and/or the *Roads Act 1993*. Preliminary searches indicate parcels of Crown land to be present adjacent to and within the Project Site. Consultation with NSW Crown Lands would occur during development of the EIS and should any works be proposed in these areas an approval would be obtained.
	***Protection of the Environment Operations Act 1997* (POEO Act)** Under Section 48 of the POEO Act, an Environment Protection Licence (EPL) from the NSW Environmental Protection Authority (EPA) is required for scheduled activities listed in Schedule 1. Schedule 1, Clause 17 of the POEO Act includes “electricity works (wind farms)” as a scheduled activity. Accordingly, an EPL will be required for the Project. Additional EPLs required for construction elements will be identified as part of constructability reviews and recorded in the EIS, for example crushing/grinding/separating or extractive activities dependent on thresholds or road construction.

Matter	Requirements for the Project
	Roads Act 1993 An approval is required under Section 138 of the *Roads Act 1993* to permit the erection of a structure or carry out work in, on or over a public road. This approval would be obtained prior to the commencement of relevant works. Any road upgrades required for the project and impact assessment of the upgrades would be assessed and identified in the EIS.
	Water Management Act 2000 Any person or organisation, including a local water utility, taking water from a water source must be authorised to take water by a water access licence and a water supply work approval under section 60A of the *Water Management Act 2000* unless an exemption applies. Water access licences may be required for the Project. Water sources for construction and operations would be identified and quantified within the EIS. Detailed investigations would be carried out as part of the EIS to determine whether the Project would impact on aquifers or groundwater. Relevant licence and approvals would be obtained prior to the commencement of construction.
	Conveyancing Act 1919 *Lease of Premises - Turbines* The Project would require a lease from the owners of the Project land. Lease of a wind farm site is treated as a lease of premises regardless of whether the lease would be for more or less than 25 years. Subdivision consent is not required under Section 23G of the *Conveyancing Act 1919*. Separate leases will be entered into for each registered proprietor. However, if a registered proprietor owns more than one lot which the Project will affect, only one lease is required to cover the multiple lots owned by that registered proprietor. *Lease of Premises - Substation* The Project will require a lease from the owner of the Project land which the substation is situated or to subdivide and purchase the land. Electrical substations are treated as premises rather than fixtures due to the substantial and permanent nature of their construction. Either a lease of premises together with rights of access or an easement over the substation site together with rights of access will be entered into.
Approvals not required for SSD	In accordance with Section 4.41 of the EP&A Act, some environmental planning legislation does not apply to SSD projects, meaning that these separate planning approval processes do not apply to SSD projects providing the impacts have been assessed and approved under the SSD development consent. The approvals that do not apply are listed in Table 4 3. *Table 4-3 Approvals not required under Section 4.41 of the EP&A Act*

Approval	Discussion
A permit under section 201, 205 or 219 of the *Fisheries Management Act 1994*	The Project may require work near or within watercourses to facilitate the upgrade of internal road crossings or establish new crossings of mapped watercourses within the Project Site. These works will be undertaken in accordance with the *Guidelines for riparian corridors on waterfront land* (DPI, 2012) and *Guidelines for watercourse crossings on waterfront land* (DPI, 2012). The methodology proposed for the Biodiversity Development assessment report (BDAR) assessment and water assessment is outlined in Section 6.4 and Section 6.9.

Matter	Requirements for the Project	
	An approval under Part 4, or an excavation permit under section 139, of the *Heritage Act 1977*	No known non-Indigenous items have been identified within the Project Site based on a review of NSW and Commonwealth heritage registers. The methodology proposed for the heritage assessment is outlined in Section 6.5.
	An Aboriginal heritage impact permit under section 90 of the *National Parks and Wildlife Act 1974*	A search of the Aboriginal Heritage Information Management System (AHIMS) register on 12 March 2024 identified 20 Aboriginal heritage sites in the vicinity of the Project. The methodology proposed for the heritage assessment is outlined in Section 6.5.
	A bushfire safety authority under section 100B of the *Rural Fires Act 1997*	The Project is located on land designated as Vegetation Category 1 and 3 and is therefore considered bushfire prone. The Project will be designed in accordance with *Planning For Bushfire Protection* (NSW Rural Fire Service 2019). The methodology proposed for the Bushfire assessment is discussed at Section 6.9.
	A water use approval (section 89), a water management work approval (section 90) or an activity approval (other than an aquifer interference approval) (section 91)) of the *Water Management Act 2000*	The Project may require work near or within watercourses to facilitate the upgrade of internal road crossings or establish new crossings of mapped watercourses within the Project Site. These works will be carried out in accordance with DPHI's various guidelines for controlled activities. The methodology proposed for the BDAR assessment and water assessment is outlined in Section 6.4 and Section 6.9.
Other relevant legislation and planning instruments	***Biodiversity Conservation Act 2016***	
	Part 7, Division 2 of the BC Act specifies the requirements for a biodiversity assessment depending on the planning pathway under the EP&A Act. If an activity is likely to have a significant impact or will be carried out in a declared area of outstanding biodiversity value, the proponent must apply the Biodiversity Assessment Method (BAM) and must prepare a BDAR. A BDAR will be prepared for the Project and will assess biodiversity offsets consistent with the Biodiversity Offset Scheme (BOS). The methodology proposed for the BDAR assessment is outlined in Section 6.4.	
	Biosecurity Act 2015	
	This Act aims to protect natural resources from the adverse impact of pests, disease, weeds and contaminants on agricultural land and parks and reserves (such as those near to the site). All plants are regulated with a general biosecurity duty to prevent, eliminate or minimise any biosecurity risk they may pose. During construction of the Project, 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.	
	Contaminated Land Management Act 1997	
	The CLM Act outlines the circumstances in which notification to the EPA is required in relation to the contamination of land. This may become relevant during construction of the Project if contamination is encountered. A public register of notifications under this Act is maintained. An assessment of contamination risk will be included in the EIS.	

Matter	Requirements for the Project
	Waste Avoidance and Resource Recovery Act 2001 **(WARR Act)** The WARR Act was established to promote waste avoidance and resource recovery. The Act encourages the most efficient use of resources to reduce environmental harm. Waste management and resource use for the Project will be carried out in accordance with the WARR Act.
	State Environmental Planning Policy (Resilience and Hazards) 2021 **(R&H SEPP)** R&H SEPP applies to any projects that fall under the policy's definition of 'potentially hazardous industry' or 'potentially offensive industry'. Certain activities may involve handling, storing or processing a range of substances which in the absence of locational, technical or operational controls may create a risk or offence to people, property or the environment. Such activities would be defined as potentially hazardous or potentially offensive. The Project is not considered to be a 'potentially hazardous industry' or 'potential offensive industry' under the R&H SEPP. Nonetheless, the EIS for the Project will include an assessment of potential hazards and risks associated with the construction and operation of the Project. Refer to Section 6.10 for more information. R&H SEPP Chapter 4 (Remediation of land) The R&H SEPP also provides a state-wide approach to the remediation of contaminated land for the purpose of minimising the risk of harm to the health of humans and the environment. In accordance with Chapter 4 (Remediation of land), a consent authority must not consent to the carrying out of development on any land unless: • It has considered whether the land is contaminated. • If the land is contaminated, it is satisfied that the land is suitable in its contaminated state (or would be suitable, after remediation) for the purpose for which the development is proposed to be carried out. • If the land requires remediation to be made suitable for the purpose for which the development is proposed to be carried out, it is satisfied the land would be remediated before the land is used for that purpose. An assessment will be prepared to determine the potential contamination risk associated with the Project as described in Section 6.8. Noting the agricultural land use of the Project Site, the assessment will take into consideration historical land use that may have resulted in contamination within and surrounding the Project Site.
	State Environmental Planning Policy (Biodiversity and Conservation) 2021 **(B&C SEPP)** The B&C SEPP provides a framework for the regulation of the clearing of native vegetation in NSW.
	Conargo Local Environmental Plan 2013 **(Conargo LEP)** The relevant provisions of the Conargo LEP such as Clause 6.1 (Earthworks), Clause 6.3 (Terrestrial biodiversity), Clause 6.4 (Groundwater vulnerability), Clause 6.5 (Riparian land and watercourses) and Clause 6.6 (Wetlands) will be considered in the EIS as they relate to the Project. Under Section 2.10 of the Planning Systems SEPP, it is noted that Development Control Plans (DCPs) do not strictly apply to SSD projects but may be considered on a case-by-case basis as appropriate.

Matter	Requirements for the Project
Pre-conditions to exercising the power grant consent	The preconditions to exercising the power to grant approval have been identified for the Project in this document. An EIS would be prepared in accordance with relevant legislative requirements and guidelines. The Project is permissible with landowners' consent.
Mandatory matters for consideration	The key Commonwealth, State and Local legislative and policy instruments applicable to setting the SEARS for the Project are identified throughout this table (Table 4-1). The relevant statutory requirements for the Project would be outlined in further detail within the EIS.

5 Engagement

5.1 Community and stakeholder engagement objectives

Squadron Energy is committed to undertaking genuine and meaningful community and stakeholder engagement and consultation for the Project. The communication and engagement objectives for the Project are to:

- Seek feedback from the local community regarding the proposed project and integrate this feedback into the project planning and design as far as possible
- Keep the community informed about the project, its likely impacts, and likely benefits, through the provision of early, accurate and timely information
- Identify key stakeholders for further engagement and provide multiple opportunities and mechanisms for meaningful engagement with all stakeholders
- Understand the potential social impact of the project to inform and implement mitigation measures
- Ensure that the team developing the project fully understands the local context, including any local impacts that it may have or opportunities that it could provide
- Build and maintain Squadron Energy's social licence within the community.

Stakeholder engagement is carried out by the Squadron Energy Project team, with input from Squadron Energy's Stakeholder Engagement team and supported by Squadron Energy 's First Nations Engagement team. Squadron Energy considers it important that trusting relationships are developed between the people on the ground who are involved in the Project on a day-to-day basis, and the stakeholders that are part of, and connected to, their local community and region.

Squadron Energy begins with robust stakeholder mapping and analysis to understand the needs of the community and begins building relationships from Project inception. Squadron Energy builds on these relationships to maintain open and transparent communications with stakeholders throughout the Project lifecycle.

5.2 Community and stakeholder consultation

The key stakeholders identified from the stakeholder mapping analysis for the Project are outlined in Table 5-1.

Table 5-1 Identified stakeholders

Stakeholder Group	Stakeholders	Geographical extent of interest
Host Landholders	The Project is located on predominantly freehold land	Local
Neighbouring Landholders	Neighbouring dwellings within 8km of the Project Site	Local/regional
First Nations	NSW Aboriginal Land Council	Local/regional
	Deniliquin Local Aboriginal Land Council	
	Cummeragunja Local Aboriginal Land Council	
	Yarkuwa Indigenous Knowledge Centre	

Stakeholder Group	Stakeholders	Geographical extent of interest
Communities within the social locality	Conargo	Regional
	Hartwood	
	Deniliquin	
	Jerilderie	
Local Council	Edward River Council	Regional
Community Interest Groups and Community Services	Deniliquin Lions Club	Regional
	Rotary Club of Deniliquin	
	Country Women's Association – Deniliquin	
	Deniliquin Lagoons Kolety Lagoons Landcare Group	
	Western LLS	
	Murray LLS	
	NSW Farmers Deniliquin	
	RFS Deniliquin and Conargo	
	North Conargo Land Management Group	
	Murray Local Community Advisory Group	
	Murray Aboriginal Community Advisory Group	
	Murray Regional Weed Committee	
	Yanco Creek and Tributaries Advisory Council	
	Conargo Hall and Recreation Ground Committee	
Schools	Conargo Public School	Regional
	Deniliquin High School	
	Deniliquin North Public School	
	Deniliquin South Public School	
	TAFE Deniliquin	
	Conargo P&C School Committee	
	Conargo School Council	
Industry and Local Business	Deniliquin Business Chamber	Regional
	Deniliquin Pastoral Times	
	ABC Riverina	
	END FM (radio)	
	1521 2QN Deniliquin (radio)	
	Edge FM	
	Conargo Hotel	

Stakeholder Group	Stakeholders	Geographical extent of interest
Government – State	NSW Member for Murray, Helen Dalton MP	State
	Crown Lands	
	Department of Finance, Services, and Innovation – Telco Authority	
	Department of Climate Change, Energy, the Environment and Water (DCCEEW)	
	Department of Planning, Housing and Infrastructure (DPHI) including Biodiversity, Conservation and Science Directorate (BCSD), Energy Corporation and Water Group.	
	Department of Primary Industries – Agriculture and Fisheries (DPI)	
	Environment Protection Authority (EPA)	
	Fire and Rescue NSW	
	Heritage NSW	
	NSW Rural Fire Service	
	Regional NSW – Mining, Exploration and Geoscience (MEG)	
	Transport for NSW (Transport)	
	TransGrid	
	Water NSW	
	NSW Energy Sector Board	
Government - Federal	Federal Member for Farrer, Hon Sussan Ley MP	Federal
	Airservices Australia	
	Bureau of Meteorology	
	Civil Aviation Safety Authority	
	Department of Defence	
	Department of Climate Change, Energy, the Environment and Water	
	Australian Energy Market Operator	

5.3 Consultation undertaken to date

Squadron Energy has been engaging with a range of stakeholders, including the host landowner, surrounding neighbours, First Nations stakeholders, Council and State and Federal Government MPs. Figure 5-1 outlines the engagement undertaken. Examples of the newsletter, invitation to the community open day and website are included in Appendix E.

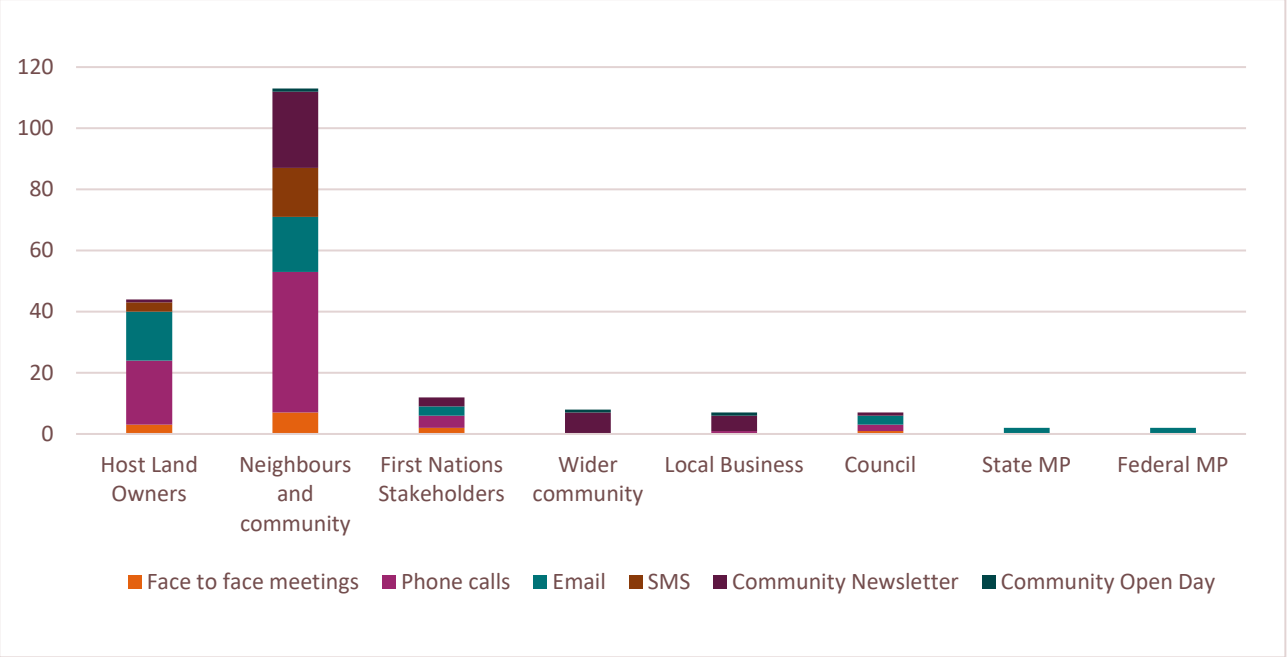


Figure 5-1 Consultation undertaken to date

5.3.1 Feedback received

A summary of the feedback received from the consultation undertaken to date is provided in Table 5-2.

Table 5-2 Feedback received

Stakeholder type	Key theme / issue raised during consultation to date	Stakeholder View Category (grouped per SSD guidelines)
Host Landowners	• Diversification of land use, independent of weather and market conditions • Detailed feedback gathered on layout • Decommissioning process	• Strategic context • Alternatives considered • Key matters to be assessed during the preparation of the EIS
Neighbours and community	• Expressions of interest to host WTGs, project infrastructure or participate through biodiversity offsets • Bush fire risk management • Potential impacts to biodiversity (e.g. the Plains Wanderer) • Potential visual impacts	• Strategic context • Alternatives considered • Key matters to be assessed during the preparation of the EIS
Edward River Council	• Generally supportive of renewable energy development in the LGA and the associated opportunities • Decommissioning • Skills training	• Cumulative impacts • Statutory issues • Key matters to be assessed during the preparation of the EIS
First Nations Stakeholders	• Opportunities for collaboration through information sharing and engagement of local RAPs during the development process of the project • Potential heritage values	• Community engagement during the preparation of the EIS • Key matters to be assessed during the preparation of the EIS

Stakeholder type	Key theme / issue raised during consultation to date	Stakeholder View Category (grouped per SSD guidelines)
State and Federal MPs	• Contact made but no feedback received • Briefing attempted to be scheduled during parliamentary winter break 2024	
Local business Conargo Hotel	• Contact made. No feedback received at time of writing this Report. Squadron Energy will continue to engage as the project develops	
Other Conargo Public School	• Contact made. No feedback received at time of writing this report. Squadron Energy will continue to engage as the project develops	
Wider Community (Conargo township)	• Potential visual impacts • Noise • Biodiversity impacts • Anti renewable energy / Pro Nuclear	• Strategic context • Alternatives considered • Community engagement during the preparation of the EIS • Key matters to be assessed during the preparation of the EIS • Issues beyond the scope of the project or not relevant

5.3.2 Community information session summary

A community information session was held on the corner of Carrathool and Conargo Road in Conargo, on Thursday 21 March between 1:00pm-6:00pm. The open day was attended by 11 individuals in seven groups. This comprises approximately 10% of the population of Conargo. The attendees comprised:

- Neighbouring landowners (within 8km of the Project)
- Four wider community members (residence of Conargo)
- One passerby with connections to the township of Conargo.

The topics discussed are summarised in Table 5-3.

Table 5-3 Topics raised at the community information session

Topics	Number of times it was raised
Visual amenity	2
Biodiversity	3
Hazards and risks	1
Land use	3
Community benefits	2
Employment / training opportunities	1
Project Layout	1
Other nearby projects	1
Alternative technology (Nuclear)	2

5.4 Engagement and consultation proposed during preparation of the EIS

Squadron Energy will inform stakeholders of the lodgement of this Scoping Report and continue to engage and consult with the community and stakeholders during the preparation of the EIS. This ongoing consultation will be guided by the Project's Stakeholder Engagement Plan available on the Project website (www.conargowindfarm.com.au) and the legislation and guidelines it has been prepared in accordance with (listed in Section 1.7 of the Stakeholder Engagement Plan). The feedback and participation from engagement and consultation activities will be used to further inform investigations being carried out for the environmental and social impact assessment of the Project. Engagement and consultation will be undertaken with reference to the key issues identified in Chapter 6.

Key elements of this engagement and consultation will include community contact and information channels throughout the planning approval process.

An indicative engagement and consultation schedule is included in Section 3.5 of the Project's Stakeholder Engagement Plan.

5.5 Public exhibition of the EIS

The EIS will be placed on public exhibition for a minimum of 28 days as stated in the EP&A Act. Advertisements will be placed in newspapers to advise of the public exhibition and where the EIS can be viewed, and details of proposed community engagement and consultation activities, including information sessions.

Engagement and consultation activities during public exhibition of the EIS may include:

- Community information sessions
- Newsletter letterbox drop
- Emails
- Information on project webpage
- Information available at local council offices
- Stakeholder meetings
- Local business engagement
- Government stakeholder engagement.
- Local First Nations engagement tailored to community led methods.

The extent and form of this engagement and consultation will be determined prior to the EIS exhibition.

5.6 Engagement and consultation during construction / operations

Should the Project be approved, engagement and consultation will continue with the community and key stakeholders during construction and operation. This will generally involve:

- Keeping the community informed about the Project, its likely impacts, and likely benefits, through the provision of accurate and timely information
- Creating a property-plan with host landowners which addresses specific landowner matters, stipulates access to the site, as well as addressing key information such as land use and key dates of activities of the existing farm operations
- Providing up-to-date information on issues that affect stakeholders including road closures, over size and over mass deliveries
- Providing an efficient complaints and enquiries management process and ensure that complaints are responded to and resolved quickly
- Ensuring that the construction team fully understands the local context, including any local impacts that it may have or opportunities that it could provide
- Building and maintaining Squadron Energy's social licence within the community
- Stakeholder engagement plan to be updated and adapted to the construction phase of the project
- Pre-commencement "job-fairs" to source local labour, suppliers and subcontractors and maximise local content
- Consultation in accordance with statutory requirements
- Ongoing engagement and consultation with key stakeholders, local council and other government agencies
- Provision of regular updates to the neighbouring community.

6 Proposed assessment of impacts

6.1 Overview

In accordance with the SSD Scoping Report Guidelines, the scale of impact, nature of impact and sensitivity of the receiving environment for the environmental issues has been evaluated in the scoping summary table in **Appendix A**. The scoping summary table groups the matters requiring further assessment in the EIS by the level of assessment required.

Definitions for levels of assessment and the level of assessment proposed for each matter is summarised in Table 6-1. The assessment matters are grouped into the broad categories identified in the SSD Scoping Report Guidelines.

Table 6-1 Proposed level of assessment

Level of assessment	Definition	Assessment matter
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 access • Social and economic • Hazards and risk • Water and hydrology
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.	• Historic heritage • Land • Waste • Air
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.	• Port, airport and rail facilities • Greenhouse gas • Odour • Opportunity cost • Coastal hazards, land movement and dam safety

Following a review of the standard SEARs for wind energy, it is proposed that for this Project, the assessment of impacts from wind turbine generators and ancillary infrastructure, including battery technology, be undertaken in accordance with these standard requirements, having regard to the draft energy framework, with the key issues deemed commensurate with the potential risks listed below.

6.2 Landscape and visual

6.2.1 Existing environment

The Project Site is on the Hay Plains, a predominantly flat, open rural landscape north of Yanco Creek. The site is used for agricultural purposes including livestock grazing pastures and some areas closer to Yanco Creek actively irrigated and used for cropping.

A corridor of riparian forest runs along Yanco Creek at the southern boundary of the Project Site. The mature River Red Gums in this area provide some visual separation between the Project Site and the township of Conargo to the south.

Human settlement in the immediate vicinity of the Project Site comprises scattered farm houses, most of which are clustered along the edge of the riparian forest along Yanco Creek. The village of Conargo, located on the banks of Billabong Creek (downstream of Yanco Creek), is about 8km to the south west of the Project Site. Conargo contains several houses and basic local services including a public school, the Conargo Hall, a pub and playing fields. Conargo is visually separated from the Project Site by the Yanco Creek/Billabong Creek riparian forest.

Typical Hay Plains landscape along the Cobb Highway

The Project Site looking north from Yanco Road

The Project Site looking south from Yanco Road towards riparian woodland along Yanco Creek

6.2.2 Potential impacts

Guidelines

In accordance with the *Wind Energy: Visual Assessment Bulletin for State Significant Wind Energy Development* (DPE 2016b) guidelines, the proponent must undertake a preliminary environmental assessment at the scoping phase that considers the landscape in which a proposed wind energy project will be located.

The preliminary environmental assessment includes:

- Mapping of the key landscape features, areas of scenic quality and key viewpoints, identified through community consultation
- Using preliminary assessment tools, (including the Visual Magnitude Tool and the Multiple Wind Turbine Tool) which is applied to the preliminary wind turbine generator layout to provide an early indication of visual impact
- Preliminary environmental assessment based on the above.

This assessment is described in the following sections.

Community engagement

Potential visual impacts and visual amenity was raised generally as a concern by several community members during the preliminary community engagement. The community consultation undertaken to date has not identified any specific landscape features or vantage points that are valued by the local community. However, the views in the vicinity of townships, such as Conargo, and areas of riparian vegetation, such as along the Yanco Creek, are expected to be more greatly valued by the community. Further engagement with the community will be undertaken during preparation of the EIS.

Preliminary assessment tools

The study area for public and private viewpoints extends 8km from the outer perimeter of the proposed wind turbine generator array (Figure 6-1).

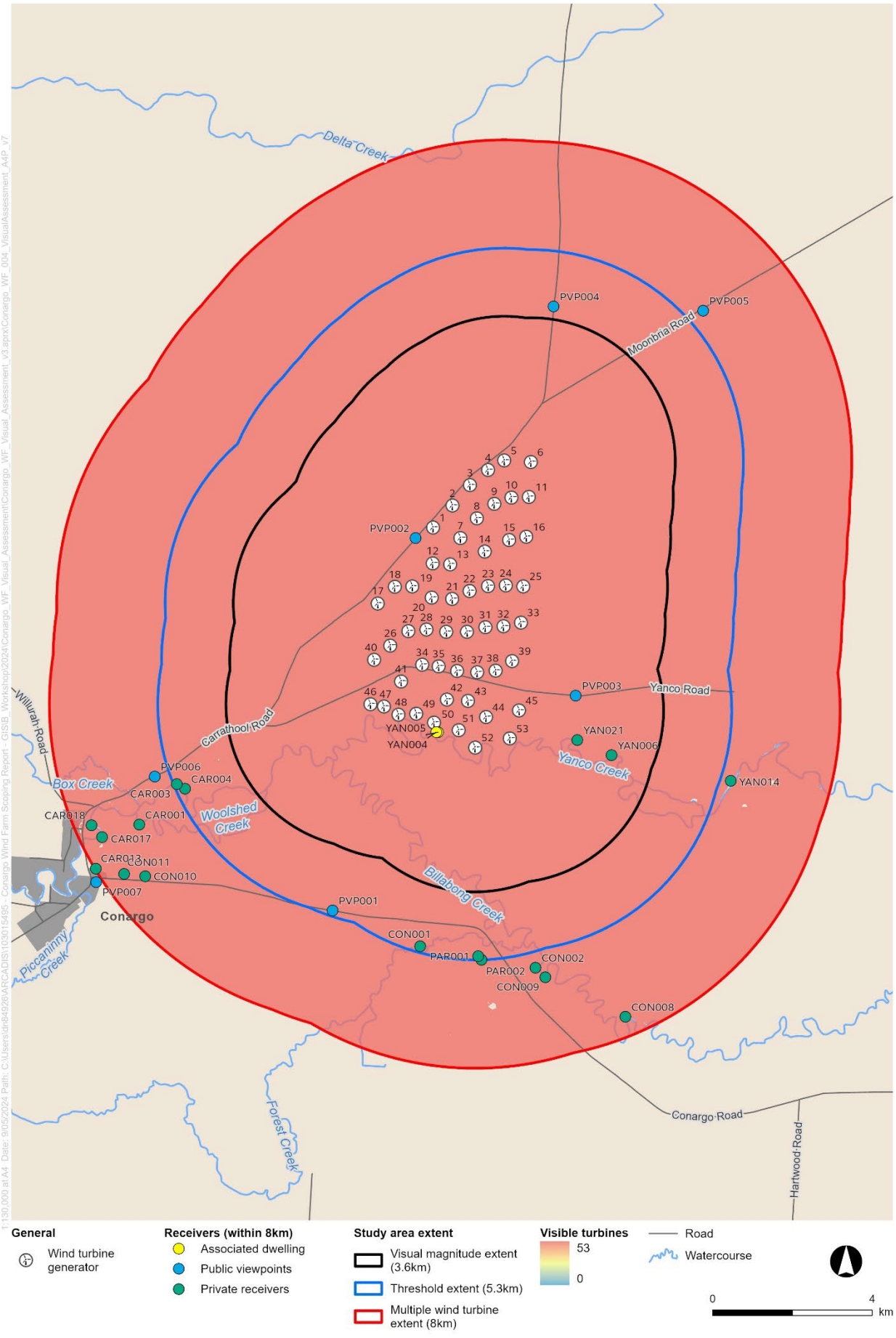


Figure 6-1 Visual study area extent and viewshed

Within this study area, detailed consideration should be given to the visual impacts on dwellings or key public viewpoints from wind turbine generators located below the 'black line', shown on Figure 2 of the Visual Bulletin (DPE 2016b).

Based on a proposed wind turbine generator blade tip height of up to 270m, the black line has been extrapolated and intersects at about 3.6km.

Preliminary environmental assessment

Viewshed analysis

A viewshed analysis of the 53 wind turbine generators has been carried out based on terrain only (screening from vegetation and buildings is not considered) using Geographical Information System software (Figure 6-1). Given the extremely flat terrain, this shows that all wind turbine generators are theoretically visible from all locations in the study area (8km) (i.e. all dwellings and key public viewpoints may have a view to at least part of one wind turbine).

The terrain based viewshed analysis exaggerates the likely visibility of the Project due to the absence of vegetation and structures. For most dwellings, both in this open landscape and those located to the south associated with Yanco Creek, there would be some screening from the native riparian forest and tree planting which occurs around the perimeter of many of the dwellings. Further analysis of the visibility of the Project, considering the screening effect of vegetation will be assessed at an individual receiver level in the EIS.

Visual receivers

An initial identification of residential receivers has been carried out to support the preliminary assessment. Based on the initial identification of receivers, there are 19 private receivers (all residential dwellings) within the study area (8km) with two of these being associated with the Project. Most of the private receivers are located to the south, along Yanco Creek, and south-west of the Project Site, on the outskirts of Conargo (Figure 6-1). Two non-associated private receivers (YAN006 and YAN021) are located within 3.6km of a wind turbine generator.

A number of public viewpoints have also been identified. These are primarily views from sealed and unsealed local roads (Carrathool Road, Yanco Road, Moonbria Road and Conargo Road). The Conargo Recreation Reserve in the village of Conargo has also been identified as a sensitive public viewpoint (PV007) and is intended to represent public views from the village of Conargo more broadly (Figure 6-1). As a conservative approach, this public viewpoint is located just outside the study area but has also been included.

Table 6-2 lists all dwellings and key public viewpoints within the study area and includes the distance to the nearest turbine and number of 60° sectors of each view for which turbines within 8km may be visible (as per the Multiple Wind Turbine Tool). Viewpoints subject to views of turbines within multiple sectors would potentially experience a higher visual impact than those subject to views within one sector. The full 60° sector analysis is included in **Appendix H**.

Table 6-2 Preliminary visual impact summary

ID	Status	Distance to closest wind turbine generator (km) (and wind turbine generator ID)	Number of 60°sectors with visible wind turbine generators up to 8km	Number of visible wind turbine generators within 8km
YAN004	Associated	0.24 (ID 50)	4	53

ID	Status	Distance to closest wind turbine generator (km) (and wind turbine generator ID)	Number of 60°sectors with visible wind turbine generators up to 8km	Number of visible wind turbine generators within 8km
YAN005	Associated	0.26 (ID 50)	4	53
YAN006	Non-Associated	2.56 (ID 45)	2	53
YAN014	Non-Associated	5.56 (ID 45)	1	21
YAN021	Non-Associated	1.63 (ID 45)	2	52
CAR001	Non-Associated	6.50 (ID 46)	1	8
CAR003	Non-Associated	5.22 (ID 46)	1	24
CAR004	Non-Associated	5.08 (ID 46)	1	24
CAR013	Non-Associated	7.98 (ID 46)	1	1
CAR017	Non-Associated	7.46 (ID 46)	1	2
CAR018	Non-Associated	7.58 (ID 46)	1	2
CON001	Non-Associated	5.14 (ID 52)	1	25
CON002	Non-Associated	5.69 (ID 52)	2	18
CON008	Non-Associated	7.52 (ID 53)	1	2
CON009	Non-Associated	5.99 (ID 52)	2	15
CON010	Non-Associated	7.07 (ID 46)	1	5
CON011	Non-Associated	7.46 (ID 46)	1	3
PAR001	Non-Associated	5.20 (ID 52)	1	20
PAR002	Non-Associated	5.30 (ID 52)	1	20
PVP001	Public Viewpoint	5.16 (ID 48)	2	26
PVP002	Public Viewpoint	0.51 (ID 1)	3	53
PVP003	Public Viewpoint	1.46 (ID 45)	2	53
PVP004	Public Viewpoint	3.92 (ID 6)	1	24
PVP005	Public Viewpoint	5.72 (ID 6)	1	11
PVP006	Public Viewpoint	5.67 (ID 46)	1	18
PV007*	Public Viewpoint	>8 (ID 46)	0	0

* PV007 is located just outside the study area but has been included for conservatism.

Potential visual impacts from other Project elements

While the wind turbine generators would be the most prominent features of the Project, there are other elements that may have potential landscape and visual impacts. These include the transmission line(s), substation, battery energy storage system and meteorological mast(s). The impacts of these elements in combination with the wind turbine generators will be assessed as part of the EIS.

Landscape and visual impacts may also occur during construction. These may relate to temporary construction facilities, equipment laydown and haul roads, as well as the progressive construction of permanent project elements.

Potential landscape character Impacts

The Project would alter the visual character of the Project Site and study area, including nearby agricultural areas and potentially the village of Conargo.

6.2.3 Assessment approach

A visual impact assessment and an assessment of impacts on landscape character will be undertaken in accordance with the 2016 Wind Energy Bulletin (DPE 2016b) unless a new guideline is released by DPHI at the time of preparing the EIS.

The assessment will include the identification of landscape character zones and an assessment of the impact on each one by combining the sensitivity of the landscape character and the magnitude of the change that is predicted to occur. An assessment of view impacts on private and public locations will also be undertaken.

6.3 Noise and vibration

6.3.1 Existing environment

An initial identification of residential receivers has been carried out to support the preliminary assessment of potential impacts. This is described in Appendix F. Based on the initial identification of receivers, there are 19 private receivers (all residential dwellings) within 8km of the Project, with two of these being associated with the Project.

Most of the private receivers are located to the south, along Yanco Creek, and south-west of the Project Site, on the outskirts of Conargo.

6.3.2 Potential impacts

Construction

Construction noise and vibration will be assessed for the project EIS. Given the distance between the Project Site and the nearest sensitive receivers, it is expected that construction noise and vibration from the Project, including noise and vibration during decommissioning, will be able to be appropriately controlled to minimise any impacts to an acceptable level in accordance with the construction noise criteria identified below.

Construction noise criteria

Construction noise in NSW is assessed using the Department of Energy and Climate Change (DECC) (now NSW DCCEEW) *Interim Construction Noise Guideline 2009* (ICNG). Noise associated with construction traffic using local roads is assessed using the NSW EPA *Road Noise Policy 2011* (RNP).

Operation

Preliminary modelling approach

At this preliminary stage of the Project, the Proponent has selected two existing candidate wind turbine generators from two different manufacturers to assess potential impacts. Although the final wind turbine selection has not occurred, the selected wind turbine generators have a noise output that is considered typical across the wind turbine generator technology currently available. These comprise:

- Candidate 1 Goldwind International GW165-6.0MW [1]
- Candidate 2 GE Renewable Energy GE 4.x/5.x/6.x-158 - 50Hz [2].

For both candidates, the sound power levels at various hub height wind speed from the manufacturer's specification documents were adopted for the noise modelling.

For modern pitch-controlled wind turbine generators, the sound power levels for both wind turbine generator candidates increase from the cut-in wind speed before levelling off at a wind speed close to the wind speed at which the turbines reach rated power. The noise assessment has been based on the maximum sound power level for each candidate.

SoundPLAN version 9.0 environmental noise prediction software was used to predict the operational noise from the Project. The noise model implements the ISO 9613-2:1996[3] prediction algorithm with corrections as recommended by the *A Good Practice Guide to the Application of ETSU-R-97 for the Assessment and Rating of Wind Turbine Noise* (UK Institute of Acoustics, 2013) (Good Practice Guide).

The Noise Bulletin does not provide specific recommendations in relation to noise prediction methods. The method used in this assessment is consistent with that which is accepted by the SA EPA in assessments against the SA Guideline (which is referenced by the NSW Bulletin).

The assessment was based on the wind turbine generator locations detailed in Appendix F. For the purposes of the preliminary assessment, predicted operational noise impacts have been modelled for dwellings within 5km of the Project Site. The 5km area was chosen based on assessments of wind turbine noise in NSW where compliance with the noise criteria is typically achieved at 2km and beyond.

The predicted noise levels using the adopted methodology are considered consistent with the Good Practice Guide. It is also noted that this methodology has been shown to accurately predict downwind noise levels for Australian sites with sloping or relatively flat topography.

A battery energy storage system of about 150MW/1,200MWh is proposed and would be located on the northern section of the Project Site (Figure 3-1). It is anticipated that the operational wind turbine generators will be the prominent noise source from the Project. Based on this, and as the type of battery energy storage system is yet to be determined, a preliminary noise assessment of the batteries has not been included but will be considered during the noise impact assessment prepared for the EIS.

Noise criteria

Wind turbine operation noise criteria

The *Wind Energy: Noise Assessment Bulletin* (DPE, 2016c) advises that noise from wind farms should be controlled to the noise criteria established in the 2009 *South Australian Wind farms environmental noise guidelines* (SA Guidelines 2009), with the clarification that the base criterion of 35dB LAeq should be adopted for all non-associated dwellings.

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[1] Goldwind International (2023), *Goldwind GW165-6.0MW Acoustic Performance Specification*, dated 3 September 2023

[2] GE Renewable Energy (2022). Technical Documentation Wind Turbine Generator Systems 4.x/5.x/6.x-158 - 50 Hz, dated 8 June 2022

[3] International Standard ISO 9613-2, 1996, *Acoustics – Attenuation of sound during propagation outdoors, Part 2: General method of calculation*

The SA Guideline was amended in 2021 to recommend the design guidelines for associated dwellings. These are summarised below.

- An external noise criterion of 52dB LAeq, which is based on a level set 5dB below the *South Australian Noise Policy* recommendations for general daytime industrial noise in zones intended for rural industry (e.g. primary production) such as those zones where wind farms may be developed.
- An internal noise criterion of 30dB LAeq consistent with the *World Health Organisation (WHO) Guidelines for community noise* (1999). This internal noise criterion is generally considered to be achieved with windows partially open for ventilation if the external noise level is no higher than 45dB LAeq. Higher external noise levels may require treatments to the dwelling to allow windows to be closed for noise control reasons.

For this preliminary noise assessment this results in wind turbine noise criteria of:

- For residential receivers not associated with the wind farm:
  - 35dB or
  - the background noise level (LA90) plus 5dB,

  whichever is the greater for each integer wind speed from cut-in to rated power
- For residential receivers associated with the wind farm with a suitable noise agreement in place:
  - 45dB or
  - the background noise level (LA90) plus 5 dB

  whichever is the greater for each integer wind speed from cut-in to rated power.

The *Draft Wind Energy Guideline – Technical Supplement for Noise Assessment* (DPE, 2023d) maintains the same noise criteria at residential locations as the 2016 NSW Bulletin (DPE,2016c).

Ancillary infrastructure noise criteria

Operational noise from ancillary infrastructure would need to comply with the relevant requirements of the NSW *Noise Policy for Industry 2017* (NPfI) (EPA,2017). The project noise trigger levels set forth in the NPfI vary for different times of day. As the substation and the battery energy storage system would operate at any time, compliance with the night-time trigger levels would be required.

The NPfI establishes project noise trigger levels as the lower of the following:

- Amenity level: a criterion established with reference to the land zoning of an area and with the aim of not increasing industrial noise levels in an area. It is likely that the amenity level would be 35dB at night.
- Intrusiveness level: 5dB above the Rating Background Level (RBL) for each time of day. The minimum intrusiveness criterion that can apply is 35dB at evening and night.

Given the relatively large extent of land available within the Project Site, it is expected that ancillary infrastructure would be able to achieve compliance with the minimum applicable NPfI trigger level of 35 dB.

Preliminary operational noise predictions

Table 6-3 summarises the predicted noise level for both wind turbine generator candidates. In summary:

- The 45dB noise criteria will be exceeded at both associated receivers (YAN004 and YAN005), with the highest predicted noise levels found at YAN004.
- The predicted noise levels at all non-associated receivers comply with the minimum 35dB noise criterion for Candidate 2. However, the 35dB noise criterion would be exceeded at YAN006 with Candidate 1.

The predicted noise levels at all other identified residences (i.e. outside the 5 km area) are below 30dB, and therefore at least 5dB below the minimum applicable noise criteria in NSW for non-associated receivers.

Where an exceedance is predicted, further assessment and investigation will be conducted a part of the EIS.

Table 6-3 Preliminary operational noise predictions

ID	Status	Noise criteria, dB LAeq	Predicted noise level, dB LAeq	
			Candidate 1 (GW)	Candidate 2 (GE)
YAN004	Associated	45	**51.6**	**48.5**
YAN005	Associated	45	**51.5**	**48.4**
YAN006	Non-Associated	35	**36.0**	31.0
YAN014	Non-Associated	35	29.5	24.4
YAN021	Non-Associated	35	**39.4**	34.8
CAR001	Non-Associated	35	29.9	24.8
CAR003	Non-Associated	35	29.8	24.7
CAR004	Non-Associated	35	29.6	24.5
PAR001	Non-Associated	35	29.5	24.4
PAR002	Non-Associated	35	29.3	24.2

The predictions are based on the wind turbine generators operating at rated power and for the receiver being downwind of the operating Project. Note that no background noise monitoring was conducted around the Project Site for the preliminary noise assessment but will be undertaken for the EIS noise and vibration impact assessment.

As described above (operational noise criteria), if background noise levels are higher than 30dB at wind speeds at which the wind turbine generators are operating at rated power, then the applicable noise criteria would be higher than 35dB for non- associated receivers. In this respect, the preliminary assessment is conservative.

Noise contour maps showing the predicted 45dB and 35dB noise level contours for the preliminary layout for Candidate 1 and Candidate 2 is provided in Figure 6-2 and Figure 6-3 respectively.

Penalties for special noise characteristics

The NSW Noise Assessment Bulletin advises that a 5dB penalty would need to be added to the wind turbine generator noise level at a sensitive receiver where one or both of the following are detected as a repeated characteristic of the noise:

- Tonality: noise which has unusually high levels of energy in a narrow frequency range
- Low frequency noise: wind turbine generator noise levels exceeding 60dB LCeq when measured and assessed in accordance with the SA Guideline methodology.

For the penalty to apply, the characteristic must be repeated in that it occurs for more than 10% of a 24-hour period. Under the NSW Noise Assessment Bulletin, the penalties are only added to non-associated sensitive receivers.

It is generally not possible to assess tonality in detail at this preliminary stage, however, the technical specifications for both Candidates do not indicate any tonal noise that would require a penalty to be added in accordance with the NSW Noise Assessment Bulletin. This will be assessed further in the detailed assessment.

The noise model predicted a C-weighted (low frequency) noise level of 56dB LCeq and 52dB LCeq for Candidate 1 (GW) and Candidate 2 (GE) respectively at the non-associated receiver YAN021 which has the highest predicted A-weighted noise level (Table 6-3). Based on this preliminary assessment, low frequency noise characteristic is not expected.

Based on assessments undertaken for numerous wind farm projects in NSW, noise character penalties from wind farms at residences are relatively rare. The preliminary noise assessment indicates that penalties are unlikely to be added, and therefore, no adjustment has been made to the predicted noise levels to account for any penalty for this development stage. This will be further assessed in the EIS and confirmed through verification noise monitoring once the Project is operational.

Ancillary infrastructure noise

A battery energy storage system of about 150MW/1,200MWh and associated substations are proposed and would be located on the northern section of the Project Site (Figure 3-1). It is anticipated that the operational wind turbines will be the prominent noise source from the Project. Based on this, and as the type of battery energy storage system is yet to be determined, a preliminary noise assessment of the batteries has not been included but will be considered during the noise impact assessment prepared for the EIS.

6.3.3 Assessment approach

A detailed assessment of noise and vibration impacts will be undertaken for the EIS. The assessment would be prepared in accordance with the relevant guidelines and technical notes required by the SEARs. This will include: the NSW Noise Assessment Bulletin (DPE, 2016) and/or Draft Wind Energy Guideline – Technical Supplement Noise Assessment (2023), NPfI (EPA, 2017), ICNG (DECC, 2009), NSW RNP (DECCW, 2011), Approved methods for measurement and analysis of environment noise (EPA, 2022) and the vibration technical Guideline (DECC, 2006). The assessment will include the following:

- Predictive noise modelling of the Project's construction and operational activities. This will include:
  - An update to reflect the refined layout and wind turbine selections
  - Undertaking background noise monitoring at the nearest receivers to establish a baseline against which future operational monitoring can be undertaken to verify compliance
- An assessment of road traffic noise during construction and operation
- An assessment of any potential vibration impacts at sensitive receptors
- Identification of reasonable and feasible mitigation and management measures which will be implemented during construction and operation
- Undertaking an assessment of cumulative impacts considerate of other projects in the locality.

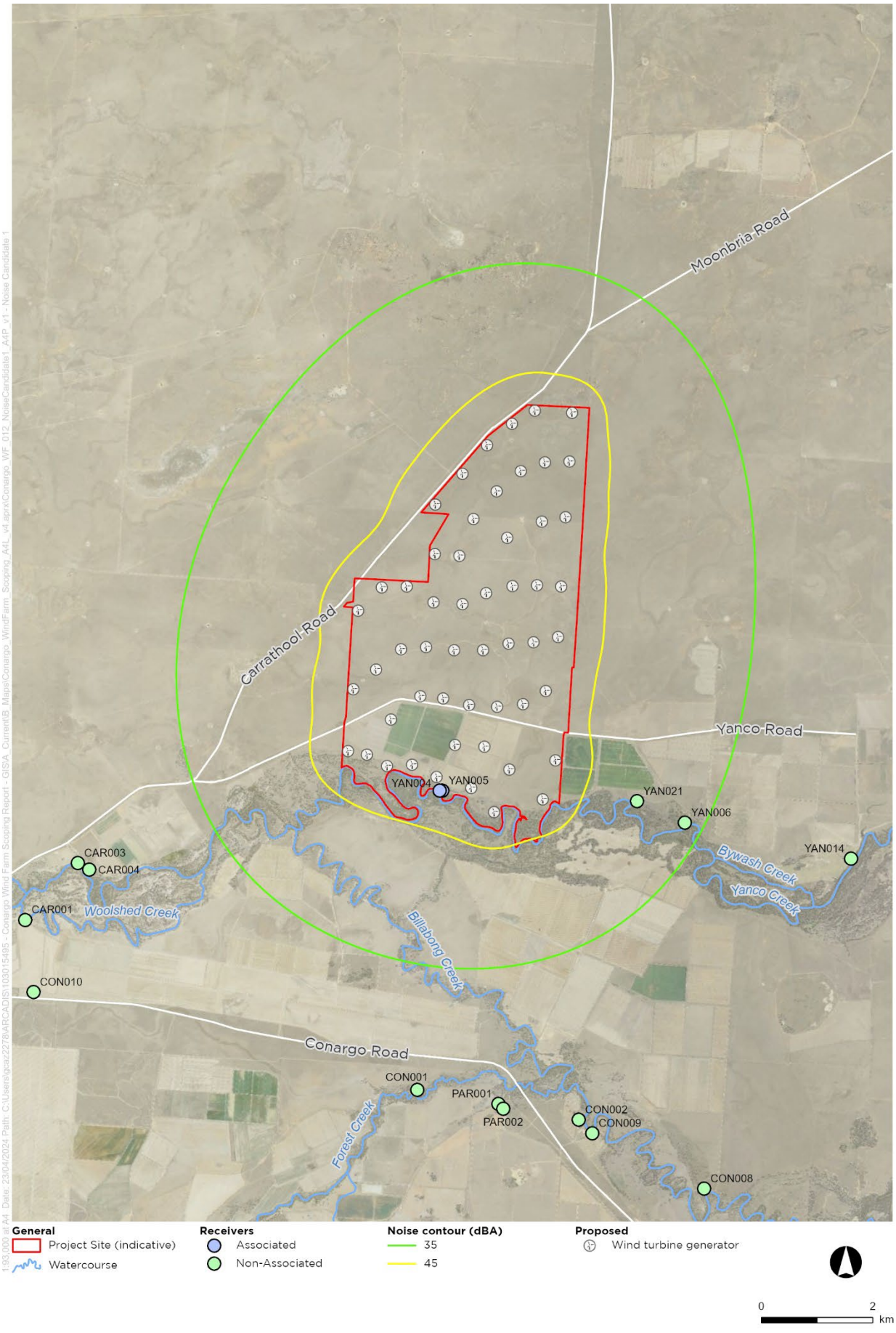

Figure 6-2 Noise contour map for Candidate 1 (GW wind turbine generator)

Figure 6-3 Noise contour map for Candidate 2 (GE wind turbine generator)

6.4 Biodiversity

6.4.1 Existing environment

Preliminary desktop searches have been undertaken to identify the existing biodiversity values potentially within the study area. The following databases were searched:

- BioNet Atlas of NSW Wildlife, managed by the NSW Department of Climate Change, Energy, the Environment and Water (NSW DCCEEW)
- Protected Matters Search Tool, managed by the Commonwealth Department of Climate Change, Energy, the Environment and Water (Commonwealth DCCEEW)
- NSW State Vegetation Type Map, managed by the NSW DCCEEW)
- Biodiversity Assessment Methodology Calculator, managed by the NSW DCCEEW
  Protected Matters Search Tool, managed by the Commonwealth Department of Climate Change, Energy, the Environment and Water (Commonwealth DCCEEW).

Native vegetation communities

The NSW State Vegetation Type Map (SVTM) (DCCEEW 2023) was reviewed for the purpose of predicting the Plant Community Types (PCTs), including Threatened Ecological Communities (TECs) that might occur within the Project Site. Five mapped PCTs identified are associated with TECs listed under the NSW *Biodiversity Conservation Act 2016* (BC Act) and/or the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) (Figure 6-4). The following 11 PCTs have been mapped within the Project Site and surrounding area:

- PCT 2: River Red Gum-sedge dominated very tall open forest in frequently flooded forest wetland along major rivers and floodplains in south-western NSW
- PCT 7: River Red Gum - Warrego Grass - herbaceous riparian tall open forest wetland mainly in the Riverina Bioregion
- PCT 9: River Red Gum - wallaby grass tall woodland wetland on the outer River Red Gum zone mainly in the Riverina Bioregion
- PCT 10: River Red Gum - Black Box woodland wetland of the semi-arid (warm) climatic zone (mainly Riverina Bioregion and Murray Darling Depression Bioregion)
- PCT 13: Black Box - Lignum woodland wetland of the inner floodplains in the semi-arid (warm) climate zone (mainly Riverina Bioregion and Murray Darling Depression Bioregion)
- PCT 26: Weeping Myall open woodland of the Riverina Bioregion and NSW South Western Slopes Bioregion (listed under the BC Act and EPBC Act)
- PCT 28: White Cypress Pine open woodland of sand plains, prior streams and dunes mainly of the semi-arid (warm) climate zone (listed under the BC Act)
- PCT 44: Forb-rich Speargrass – Windmill Grass – White Top grassland of the Riverina Bioregion (listed under the EPBC Act)
- PCT 46: Curly Windmill Grass - speargrass - wallaby grass grassland on alluvial clay and loam on the Hay Plain, Riverina Bioregion (listed under the EPBC Act)
- PCT 70: White Cypress Pine woodland on sandy loams in central NSW wheatbelt
- PCT 163: Dillon Bush (Nitre Bush) shrubland of the semi-arid and arid zones (listed under the BC Act)

The presence and extent of mapped PCTs and TECs in the broader South West REZ (up to 15km to show features in the area) and within the Project Site are shown in Figure 6-4, Figure 6-5 and Figure 6-6. Native woodland vegetation is predominantly limited to the southern extent of the Project Site and within and extending to the north of Yanco Creek riparian corridor. Most of the central and northern portion of the Project Site is comprised of a combination of improved pasture and grasslands. Further information regarding the mapped PCTs is provided in Appendix GH.

Serious And Irreversible Impacts (SAII)

SAII candidate species are those threatened species and endangered populations that are most at risk of extinction from development related impacts (DPE, 2023). An impact can be regarded as serious and irreversible if it is likely to contribute significantly to the risk of a threatened species (including endangered populations) or ecological community becoming extinct based on four principles outlined in clause 6.7 of the Biodiversity Conservation Regulation 2017. The presence of SAII candidate species has been identified based on preliminary searches and listed in Appendix I.

Threatened Species records

Database searches using a combination of the Biodiversity Assessment Method Calculator, BioNet Atlas and the Protected Matters Search Tool were conducted to produce a consolidated list of threatened species considered to have the potential to occur within the Project Site (Appendix GH Table IC). Table 6-4 provides an overview of the number of threatened species likely to occur.

Table 6-4 Number of threatened species likely to occur in the Project Site

	Total threatened species likely to occur	Known	Likely	Predicted
Birds	40	11	3	25
Fish	2	1	1	-
Frog	1	-	1	-
Mammals	4	-	1	3
Reptiles	1	-	1	-
Plants	6	2	4	-

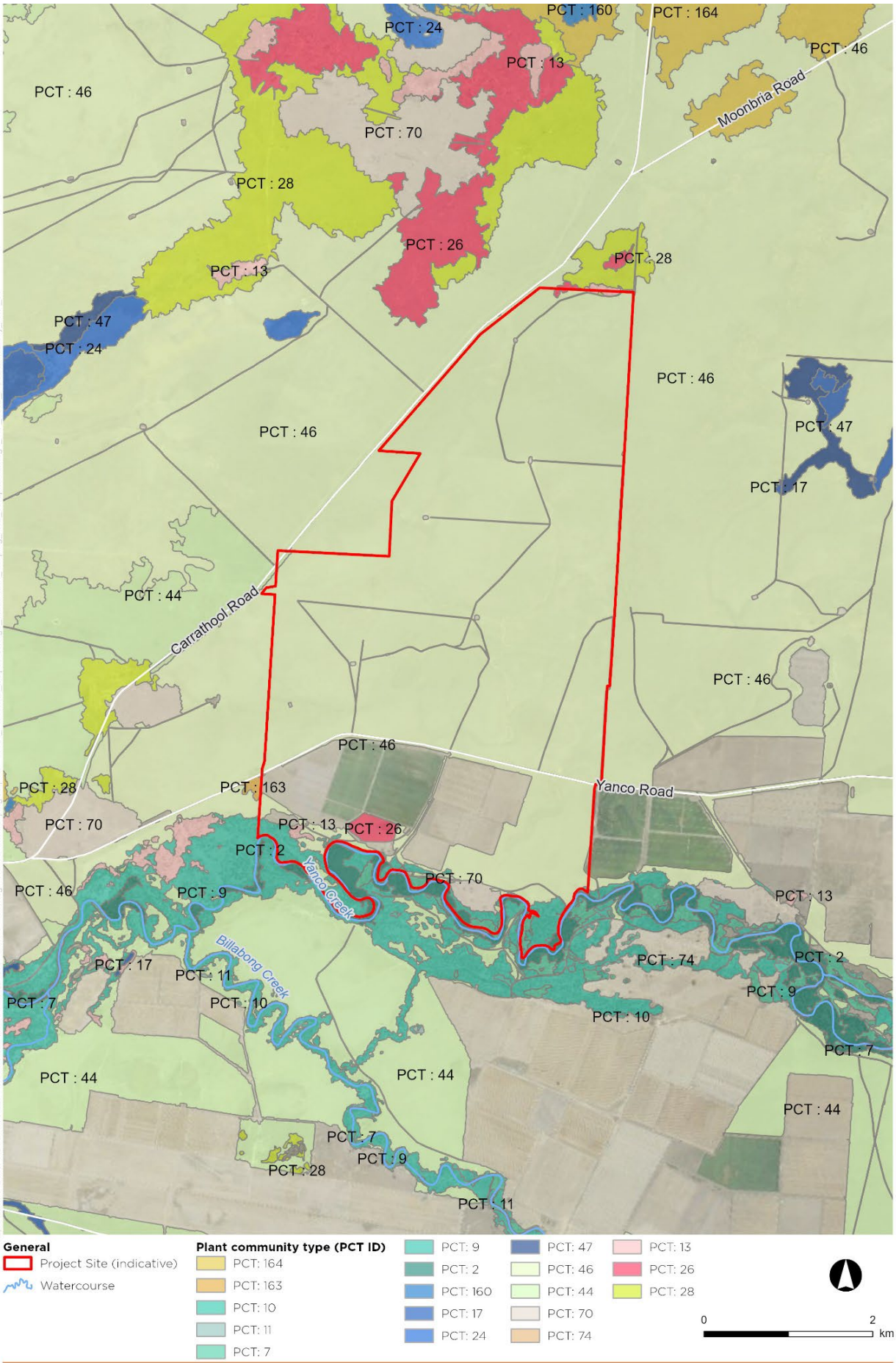

Figure 6-4 PCT mapping (Project Site)

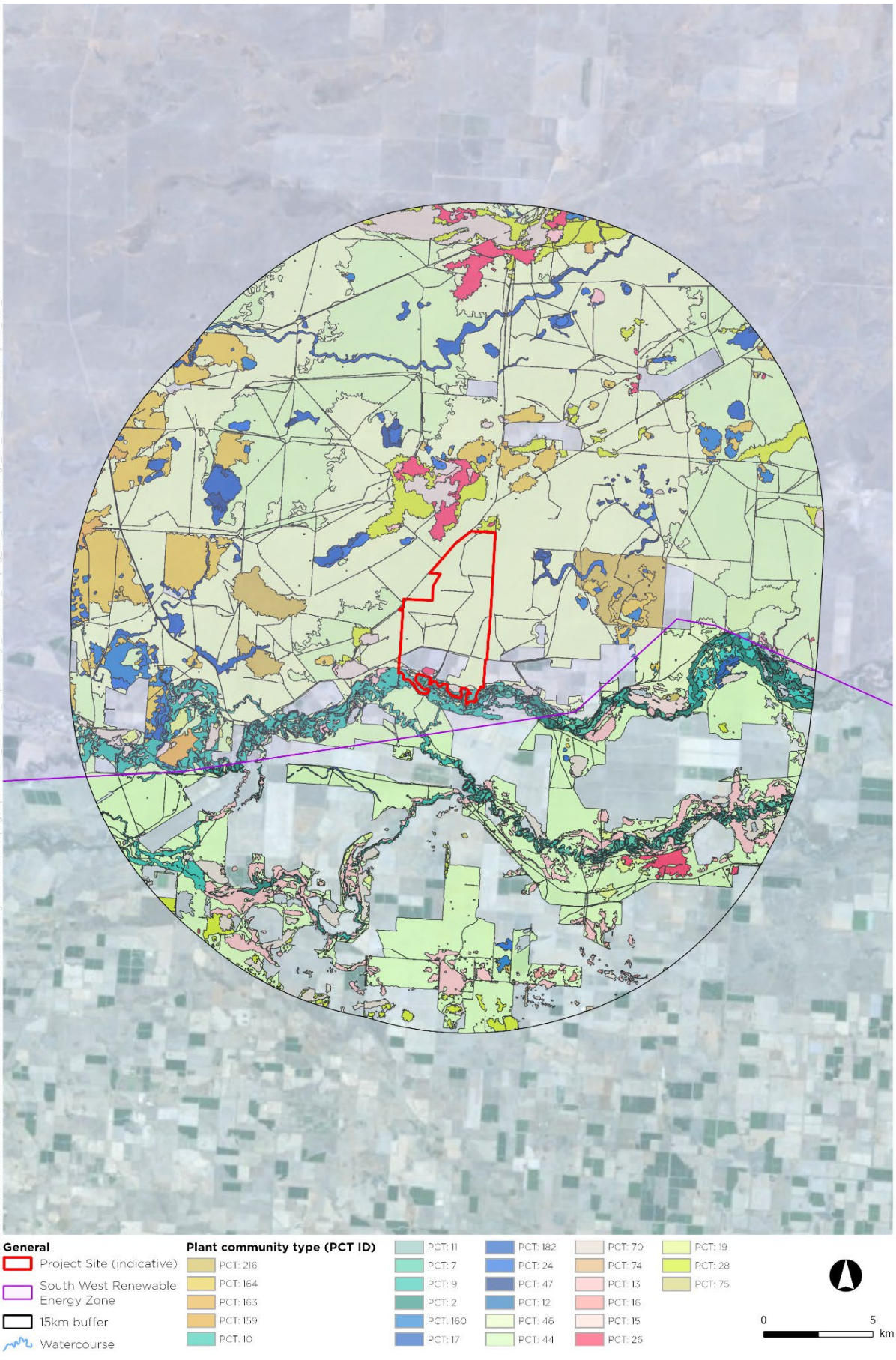

Figure 6-5 PCT mapping (South West REZ)

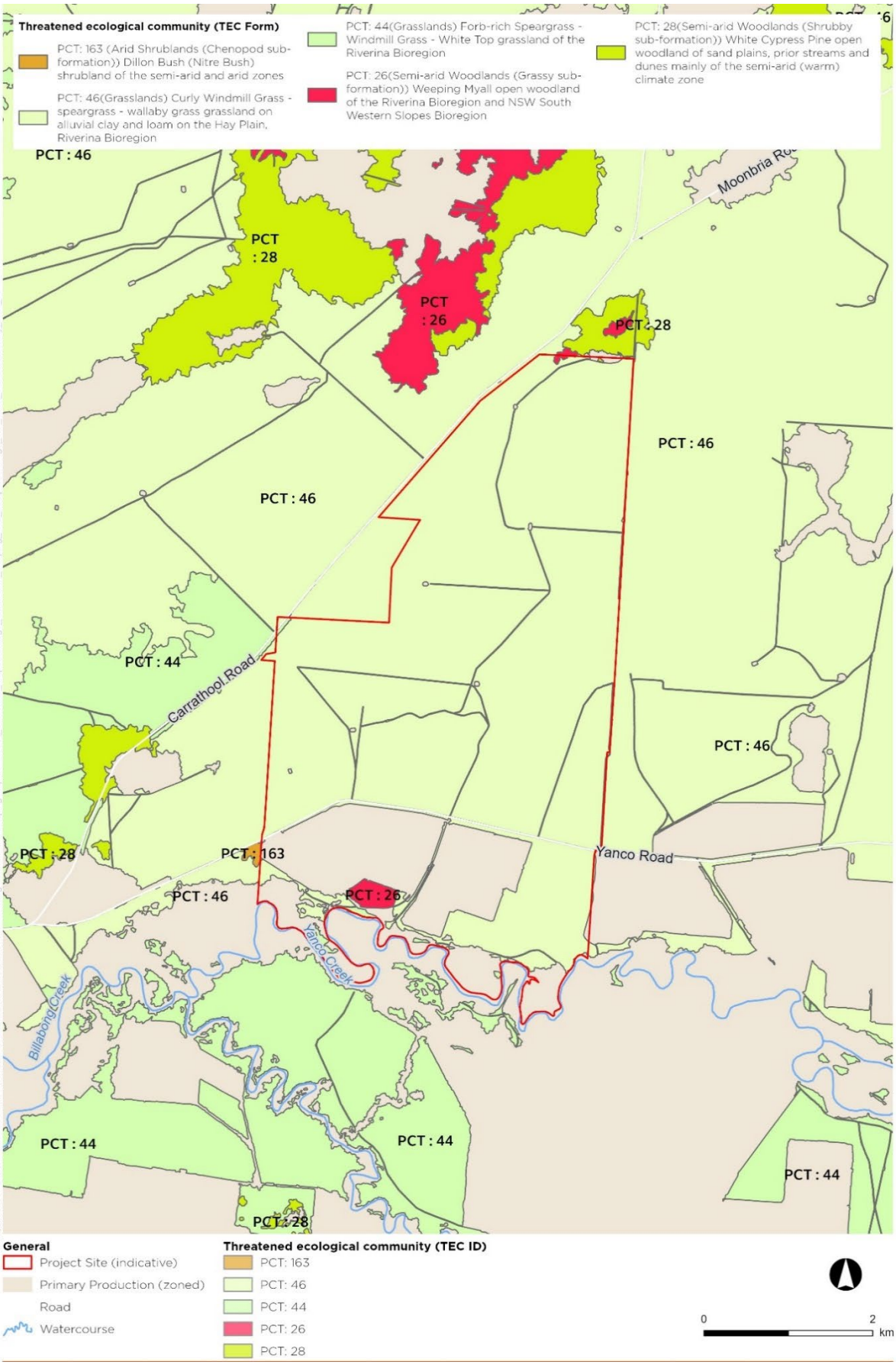

Figure 6-6 Threatened ecological communities

Migratory Species

The Protected Matters Search Tool and BioNet searches identified eight species listed as migratory under the EPBC Act (or under the Bonn, CAMBA, JAMBA and/or ROKAMBA conventions/agreements) with the potential to occur within 10km of the Project Site (Appendix GH Table ID).

Aquatic Ecology

Yanco Creek is located to the south of the site and is consistent with Key Fish Habitat for the purpose of the *Fisheries Management Act 1994*. Within the Project Site, waterways are limited to un-named first order drainage depressions with minimal bed and banks that would indicate the presence of waterfront land. It is considered highly unlikely that any of these would provide habitat for threatened fish species, however a more comprehensive, site based analysis of waterways will be completed during the EIS.

Species-Credit Species Survey Requirements

An initial Biodiversity Assessment Method Calculator case was created based on the PCTs mapped within the Project Site on the NSW State Vegetation Type Map. While there are limitations using the non-ground truthed PCT mapping, it is considered fit for the purpose of generating an initial candidate species list. A total of 32 candidate species were identified as potentially requiring further consideration and ground truthing. Appendix GH Table IE outlines these candidate species and the required month of survey to achieve compliance with the Biodiversity Assessment Method.

Matters of National Environmental Significance (MNES)

The EPBC Act provides protection of the environment from actions proposed to 'have the potential to significantly impact on MNES or the environment of Commonwealth land'. A search of the Commonwealth PMST was undertaken on 5 March 2024. The search area included a 30km buffer from the Project Site. The search results are summarised in Table 6-5 and a record of the Protected Matters Search Tool report is provided in Appendix GH. Note that despite the targeted search radius, the search tool in some cases identifies items that occur well outside the buffer (such as Wetlands of International Importance).

Table 6-5 MNES results for the 30km from the Project Site

MNES	Relevance to Development
World Heritage Properties	None
National Heritage Properties	None
Wetlands of International Importance	5
Threatened Ecological Communities	5
Threatened Species	43
Migratory Species	10
State and Territory Reserves	2
Commonwealth Marine Area	None
Commonwealth Lands	11
Listed Marine Species (including marine birds)	17
EPBC Act Referrals	9

6.4.2 Potential impacts

The preliminary project design comprises indicative turbine locations for the 53 wind turbine generators and battery storage. Ancillary infrastructure, including at access tracks, transmission lines, substations, grid connections, temporary laydown and storage areas, stormwater management infrastructure and construction compounds, will be designed and refined to minimise impacts as far as possible during preparation of the EIS. Potential direct, indirect and cumulative impacts of the Project span the construction and operational phase to be assessed as part of the EIS. Some impacts will be more prevalent during construction (i.e. vehicle strikes, intentional clearing, habitat loss) and others such as blade strike and connectivity loss would be more prevalent during operation. Potential impacts are summarised in Table 6-6.

Table 6-6 List of potential impacts of the Project

Impact Type	Potential Impact	Details
Direct impacts	• Clearing of native vegetation • Removal of threatened species habitat • Fauna mortality through vehicle strike and habitat removal during construction and blade strike during operations	• The Project will likely result in the removal of native vegetation, potentially including TECs listed under both the BC Act and EPBC Act. Much of the woodland vegetation present in the southern portion of the Project Site has been avoided by the proposed design. The central and northern portions of the Project Site is largely grassland, and comprises a mixture of both improved pasture and primary (and potentially secondary) native grasslands. • Habitat features such as hollow-bearing trees, coarse woody debris, surface rocks and grassland habitats may be impacted by the proposed works, potentially reducing the available habitat for threatened flora and fauna species predicted to occur within the Project Site. Removal of habitat may lead to decline of local biodiversity and loss of threatened species.
Indirect impacts	• Reduced viability of adjacent habitat due to edge effects • Transport of weeds and pathogens from the site to adjacent vegetation • Changed fire regimes	• Weeds are likely to occur in parts of the Project Site. Movement of weeds in around the Project Site and adjacent areas could contribute to the degradation of habitat for flora and fauna in the area. Continued weed encroachment could contribute to increasing edge effects and / or may lead to degradation of the native vegetation structure. • Sediment, nutrient and pollutant run-off that could occur during construction could impact the adjacent vegetation and waterways, potentially leading to the disturbance or loss of threatened flora and fauna. • Light, noise and vibration could disturb fauna living in the adjacent vegetation, leading to the loss of individuals and species that are sensitive to such factors. This may include noise generated by the turbine generator and light flicker as the blades rotate at speed. • Fire mitigation strategies may result in changes to fire regime across the Project Site, which may impact species that are sensitive to, or rely on, fire regimes. For some fire sensitive species, hazard reduction strategies may also improve the availability of habitat.

Impact Type	Potential Impact	Details
Prescribed impacts	• Impacts from wind turbine strikes • Impacts to water bodies, water quality and hydrological processes • Impacts to habitat connectivity	• The operation of wind turbines may directly impact fauna such as birds and bats due to turbine blade strikes, potentially leading to the decrease or loss of species in the area. • The proposed works could create a barrier to movement at a ground level and for birds and bats moving through the rotor swept area if not fully assessed and mitigated. • Construction of access roads and laydown areas have the potential to modify catchment areas and hydrological processes and threatened aquatic species if not managed for stormwater runoff.

6.4.3 Assessment approach

Biodiversity Development Assessment Report (BDAR)

In accordance with Section 7.9 of the BC Act, the EIS for the Project will be supported by a BDAR prepared in accordance with the BAM, which will be prepared by an Accredited Person under the BC Act.

Where the Project would impact on occupied habitat for a threatened species (identified through the preparation of a species polygon), and / or native vegetation with a Vegetation Integrity score greater than 17, the Project will require biodiversity offsets. The BDAR will calculate the number and type of credits required for the Project in accordance with the BAM. These biodiversity offsets will be secured through the establishment of a Biodiversity Stewardship Agreement to generate the credits.

Impacts to SAII candidate species will be considered in accordance with Section 9.1 of the BAM, allowing the Minister of Planning to make a decision on whether the Project is likely to result in an SAII.

The BDAR will include a prescribed impact assessment and comprehensive risk assessment for wind turbine blade strike on birds and bats. Bird and bat utilisation surveys will be conducted across the wind turbine array area with the collection of bird and bat data at ground level and at-height, across all seasons. Prior to the commencement of BDAR field investigations (including bird and bat utilisation surveys) a comprehensive field investigation plan will be developed.

EPBC Act referral

Due to the potential presence of MNES within the Project Site a referral to the Commonwealth DCCEEW will be prepared and submitted having regard to detailed biodiversity assessments.

6.5 Heritage

6.5.1 Existing environment

Desktop assessments of available resources were undertaken to ascertain Aboriginal, historic and natural heritage values which may be relevant to the Project Site.

The following databases were searched:

- Aboriginal Heritage Information Management System (AHIMS), managed by NSW DCCEEW
- NSW State Heritage Inventory, managed by NSW DCCEEW
- Conargo LEP 2013 heritage listings, managed by Edward River Council
- Protected Matters Search Tool, managed by the Commonwealth DCCEEW,

Aboriginal heritage

A search of the Aboriginal Heritage Information Management System (AHIMS, conducted 12 March 2024) found no identified sites present on the Project Site. A broader map search of the AHIMS database found 20 recorded Aboriginal sites within 5km of the Project. The presence of Aboriginal sites in the surrounding area indicates occupation and cultural use in a regional context and that previous Aboriginal cultural heritage assessments may have been undertaken in the area. Of particular landscape significance are the Yanco and Billabong Creeks, where eight Aboriginal sites were found.

The Project Site is on Wamba Wamba and Perrepa Perrepa Country and is located within two different Local Aboriginal Land Councils (LALC) areas. The western side of the Project Site is within the Deniliquin LALC area and the southeast section of the Project Site is within the Cummeragunja LALC area. This is shown on Figure 6-7.

Historic heritage

A report from the Commonwealth DCCEEW Protected Matters Search Tool (created 6 March 2024) does not list any World Heritage, National Heritage Places or Commonwealth Heritage Places present within the Project Site or surrounding areas. Further, the NSW State Heritage Inventory identifies no heritage items or places in the Project Site or surrounding areas likely to be impacted by the Project.

Schedule 5 of the Conargo LEP 2013 designates four sites in the township of Conargo as having local heritage significance. None of these items are within the Project Site. These are presented in Table 6-7 and shown in Figure 6-7.

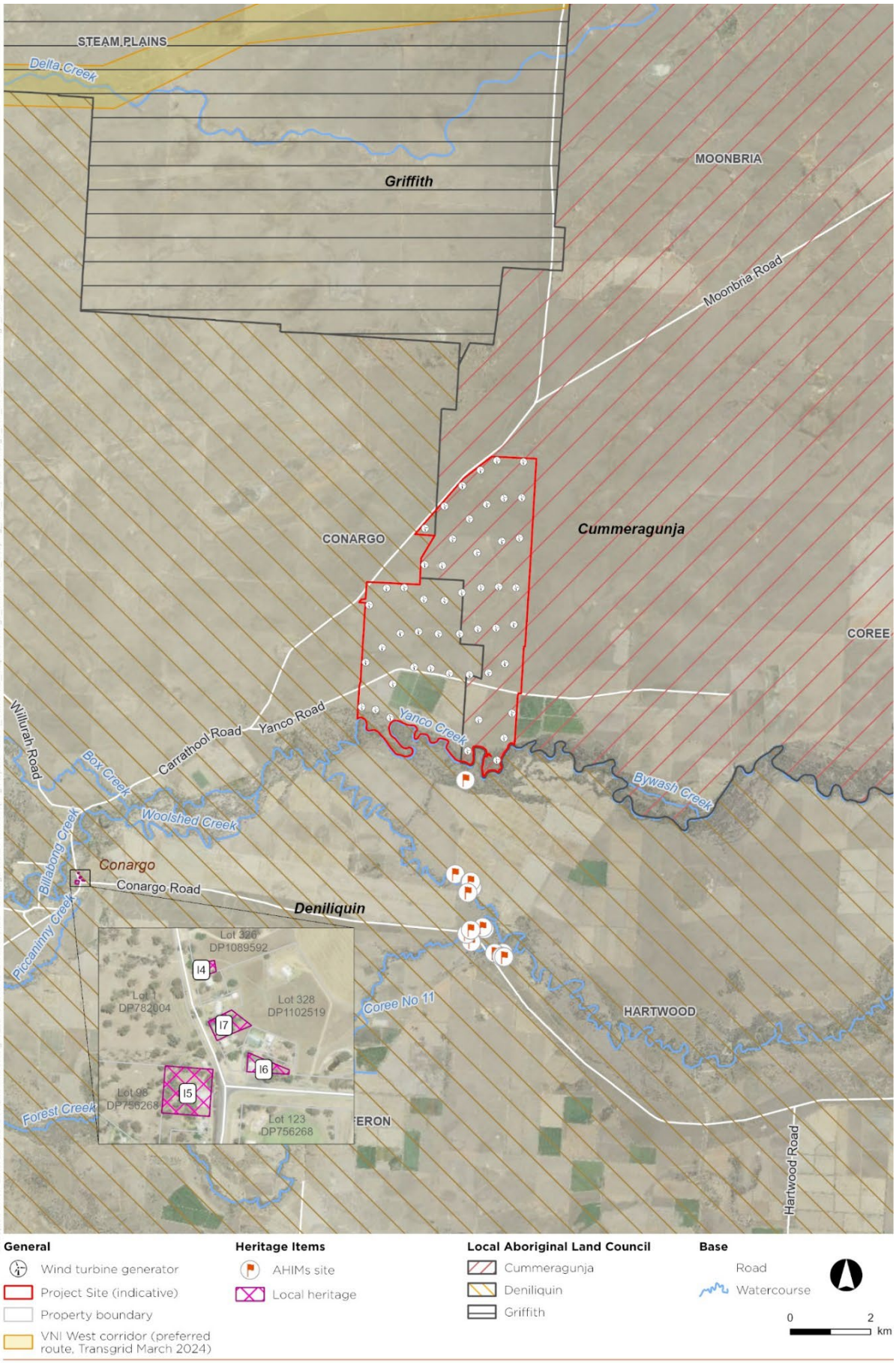

Figure 6-7 Heritage

Table 6-7 Conargo LEP 2013 Items of Local Heritage Significance

Locality	Item name	Address	Property description	Statement of Significance	LEP Item no.
Conargo	Conargo Church	Carrathool Road	Lot 1, DP 197202	State A fine example of a small timber church and grounds in remote rural area, of simple timber construction, which has not been altered for alternative uses.	I4
Conargo	Former Cobb & Co stable and change station	Carrathool Road	Lot 323, DP 1076935	Local	I7
Conargo	Conargo Hotel	Conargo Road	Lot 3, DP 756268	State The hotel has played a pivotal role in the social fabric of the village of Conargo and the iconic status of the hotel has ensured the village is known throughout Australia. A rare example of a mid 19th century hotel established on a traveling route in a small village.	I5
Conargo	Conargo Store	Conargo Road	Lot 1, DP 798165	State An intact example of an early 20th century rural general store with residence	I6

6.5.2 Potential impact

Construction

The construction of the Project would involve ground disturbance within the Project Site. Although no known heritage items have been identified in the Project Site, the presence of AHIMS sites in the broader locality and particularly along watercourses, including Billabong Creek, suggests that unknown Aboriginal sites may be present within the Project Site. Historic heritage items have also the potential to be encountered, however given that none have been identified in the Project Site, this risk is considered low.

Operation

Although there is potential to disturb previously unidentified heritage sites during operation, operational activities would involve traversing the Project Site on already disturbed access tracks, meaning no additional land impacts to the landscape would occur. As such this risk is considered low. The operation of the Project has the potential to impact on amenity, enjoyment and value of historic heritage sites in the surrounding area such as the locally significant historic sites in the nearby township of Conargo.

6.5.3 Assessment approach

Given the identification of Aboriginal sites in the area surrounding the Project Site, a detailed Aboriginal Cultural Heritage Assessment in accordance with the *National Parks and Wildlife Act 1974* will be undertaken during the EIS phase. This will incorporate a review of findings from presumed previous Aboriginal cultural heritage investigations in the surrounding areas as well as consultation and engagement with the Deniliquin and Cummeragunja LALCs.

As such, the assessment will have regard for the *Aboriginal Cultural Heritage Consultation Requirements for Proponents* (DECCW, 2010b) and be conducted according to the key guidelines:

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

Due to the presence of locally significant sites in the nearby township of Conargo, a Historic Heritage Assessment will be undertaken during the EIS phase with a focus on indirect amenity impacts during construction and operation of the Project. This will be undertaken in consideration of the *Guidelines for assessing places and objects against the Heritage Council of NSW criteria* (DPE, 2023), aligning with the principles of the *Burra Charter: the Australia International Council on Monuments and Sites* (ICOMOS) *Charter for Places of Cultural Significance* (ICOMOS, 2013).

6.6 Traffic and access

6.6.1 Existing environment

An overview of the surrounding road network is shown in Figure 1-1 and Figure 2-1. The Project would be accessed via Carrathool Road and Yanco Road.

Carrathool Road, located along the western boundary of the Project Site, is classified as a local road and B-double approved route. It is a two-way paved road with unsealed verges and one traffic lane in each direction that is aligned in a northeast-southwest direction. It has a posted speed limit of 100km/hour.

Yanco Road, which runs through the southern portion of the Project Site, is classified as a local road and B-double approved route. It is a two-way paved unpaved road and one traffic lane in each direction that is aligned in an east-west direction.

The Project Site connects with the State Highway network at Deniliquin (Riverina Highway), about 40km to the south west, via Yanco Road and Conargo Road.

There are no bus stops, formal walking or cycling facilities in the vicinity of the Project Site.

The preferred transport route of the large project components, such as turbine blades and nacelles to the Project Site will be confirmed as part of the EIS and the proponent will consult with the relevant roads authorities. The Port of Newcastle is considered a likely port of entry however other ports including (but not limited to) Port Kembla, Port Adelaide and Geelong Port are also potential ports of entry.

Figure 6-8 Carrathool Road (left) and Yanco Road (right)

6.6.2 Potential impacts

Construction

The construction phase of the Project would result in increased traffic movements by both light vehicles transporting construction personnel, minor light construction materials, and heavy vehicle movements including over size over mass (OSOM) vehicles transporting the wind turbine generators, blades and other heavy-duty equipment required for construction purposes.

Most of the vehicle movements are expected to be light vehicles for the movement of construction workers to, from, and throughout the Project Site. They will likely be using the existing surrounding public road network.

The road network from the selected port to the Project Site is anticipated to require road works to facilitate the path of OSOM vehicle. OSOM vehicle transport to the Project Site from the port terminal is the subject of ongoing route analysis and design as part of the EIS.

The Project Site is located within the South West REZ and there are other existing and proposed renewable energy projects within the region. Cumulative traffic impacts during the construction phase will be investigated further and are a key issue for the development of the REZ.

Internal roads will be established within the Project Site for the construction, operation, repowering and/or decommissioning of the Project. The Project Site will be accessed from the public roads at various locations (refer to Figure 3-1). The internal roads provide access to wind turbine generators, the battery energy storage system, substations, and other permanent and temporary facilities. Internal roads are planned to follow (and upgrade) existing farm tracks where practicable.

Operation

During operation, vehicle movements are expected to be less frequent and primarily comprising light vehicle movement associated with ongoing access, monitoring and general maintenance of Project infrastructure and land, excepting shutdown activities where heavy vehicles will be required for maintenance schemes.

6.6.3 Assessment approach

A Traffic Impact Assessment will be undertaken to determine the potential impacts of additional light and heavy vehicle movements on the local road network during construction and operation. This will include consideration of cumulative traffic impacts with other projects and an assessment of OSOM vehicles that will be required to transport large Project components. The assessment will identify the requirements for any road upgrades required for the Project.

The Traffic Impact Assessment will be undertaken in accordance with NSW Government guidelines and relevant assessment standards such as *Guide to Traffic Generating Developments* (RTA, 2002), Guide to Traffic Management (Austroads, 2020), Road Design Guide (Austroads, 2021) and Austroads Standards (where relevant).

The Traffic Impact Assessment will include:

- Review and assessment of the existing road network
- Review of any previous traffic impact assessment undertaken in the surrounding area
- Consultation with relevant stakeholders such as Edward River Council, TfNSW and regulators
- Identification of vehicles required for the Project (including type and indicative volumes) and the preferred routes for OSOM vehicle movements

- Assessment of Project and cumulative traffic impacts during the key phases of the Project
- Identification of mitigation measures

Impacts and requirements for OSOM movements will be assessed via a route analysis study as part of the EIS.

6.7 Social and economic

6.7.1 Existing environment

The social environment has been analysed for the Project's social locality, which is defined as the Australian Bureau of Statistic (ABS) Suburb and Locality (SAL) of Conargo.

The Conargo SAL covers the Project Site, the town of Conargo and surrounding land. The people potentially impacted by the Project are the closest residents. Slightly further away, the town of Conargo would also be potentially impacted by the Project, while impacts to a lesser extent may be experienced across a broader area, including nearby centres such as Deniliquin.

Conargo is a small town with one business in its centre: the recently reopened Conargo Hotel. Lifestyles across the surrounding locality are predominantly based on sheep and cattle farming. The social characteristics of the Project's social locality are analysed in Table 6-8. Where relevant, these characteristics are benchmarked against regional NSW (comprising the Rest of NSW Greater Capital City Statistical Area).

Table 6-8 Social Baseline

Aspect	Number identified
Population	In 2021, the social locality was home to approximately 117 residents living in 56 dwellings, with an average household size of 2.3 persons per dwelling (compared to 2.4 across regional NSW). 3.4% of the population in the social locality identified as Aboriginal and/or Torres Strait Islander, compared to 6.6% of the population across regional NSW.
Median Age	At the 2021 Census, the median age of the social locality was 48, older than the regional NSW median age of 43.
Age Profile	Approximately 15% of the social locality was over the age of 65 in 2021, compared to 22% across regional NSW. The social locality also had a small proportion of young adults, with 9.3% of the population aged between 20 and 34 years old, compared to 17% across regional NSW.
Language spoken at home	At the 2021 Census, no residents in the social locality reported speaking a language other than English at home, compared to 6.6% across regional NSW.
Need for assistance	At the 2021 Census, 3.4% of residents in the social locality reported needing assistance with core activities, compared to 6.8% across regional NSW.
Household type	At the 2021 Census, 25% of the social locality's households were lone person households, compared to around 28% across regional NSW. Remaining households consisted of families, with no group households in the social locality.

Aspect	Number identified
Household size	At the 2021 Census, 81.1% of the social locality's private dwellings were occupied, compared to 88.8% across regional NSW. Renting (9.3%) and mortgage ownership (18.6%) were both less common in the social locality than in regional NSW (26.8% and 31.2% respectively). None of the social locality's renting or mortgage-holding households reported being in either rental or mortgage stress (defined as rent/mortgage payments exceeding 30% of household income). This was compared to 36% and 12.7% respectively in regional NSW.
Income	In 2021, the median household income in the social locality was $1,434, compared with $1,460 across regional NSW.
Work	In 2021, 67.4% of the social locality's residents aged 15 and above were in the labour force, of whom none reported being unemployed. Regional NSW recorded 56% and 4.6%, respectively. Most employed residents in the social locality were employed as Managers (52.5%), followed by Labourers (16.9%), Community and Personal Service Workers (8.5%) and Machinery Operators and Drivers (8.5%). Most employed residents in the social locality were employed in the industry of Agriculture, Forestry and Fishing (59.3%), followed by Public Administration and Safety (22%) and Education and Training (10.2%).

6.7.2 Potential impacts

The DPHI Social Impact Assessment (SIA) Scoping Worksheet has been completed to provide a preliminary consideration of potential social impacts that may arise from the Project (Appendix C). The potential social impacts identified are summarised below. Impacts have been considered separately for the Project's construction, operational, and cumulative effects.

Construction

The Project's construction phase would generate positive social benefits through stimulating the local economy. Construction of the wind farm would generate temporary jobs. Although the construction workforce may rely on a considerable number of temporary workers from elsewhere, this could still benefit the local community through the expenditure of workers' incomes in local businesses. Workers in other towns throughout the region may also benefit through the employment opportunities associated with the construction. While the agricultural nature of surrounding businesses makes the procurement of resources unlikely in the immediate social locality, this may benefit communities across a wider area, including in Deniliquin. More broadly, the economic investment into Conargo may uplift community identity by bringing new workers into the area and by symbolising local innovation and development.

The construction of the Project could also potentially generate a range of temporary negative social impacts. Amenity could be disrupted through the generation of noise, vibration, dust and visual disturbance during construction. This would most directly impact people on adjacent properties to the Project Site and could to a lesser extent impact those within the social locality. Affected amenity could impact people's social lives by diminishing enjoyment of surroundings and ways of life.

Construction would also potentially impact traffic through heavy and light vehicle movements. This could have minor effects throughout the social locality, depending on transport routes used. Impacted traffic could affect people's ability to access daily destinations.

Although temporary workforces and economic investment have associated positive impacts. Additional demand on local housing, infrastructure and services has the potential to cause temporary negative

impacts to the social locality, as well as the threat to social cohesion and identity associated with a temporary influx of workers. Such impacts will be investigated in the Economic and Social Impact Assessment undertaken to inform the Project's EIS.

Operation

The Project would have positive operational impacts, including providing ongoing jobs in the social locality, which would contribute to a diversification of the economic base of Conargo and the surrounding region. This could enhance people's social lives by providing employment opportunities and supporting a greater range of potential careers. The incomes of workers in such employment would also likely be reinvested back into the community, with further social benefits.

The Project (and broader South West REZ) may also add positively to the identity of Conargo as a town supporting green energy transition. This has the potential to make Conargo and its surrounding region a more attractive place to live and work, attracting residents and further investment. This would exist alongside long-term, indirect social benefits of decarbonisation on the social locality, including by mitigating impacts of climate change on agricultural communities.

The Project could also have potential negative impacts during operation, through amenity impacts to the surrounding residents, workers and visitors. Aspects of amenity include the sound and vibration generated by wind turbines, as well as visual impacts on the landscape. Noise and vibration could potentially negatively affect health, wellbeing and lifestyles for people in the site, setback buffer and private receiver areas. These stakeholders could also potentially experience negative visual impacts, as could people living in Conargo and further-away areas. Amenity impacts potentially affect lifestyles through impairing people's enjoyment of their surroundings. The SIA will consider the effect of anticipated noise and vibration and visual impacts on the relevant social impact categories (refer to Table 6-9).

The Project also has the potential to impact community values, for example on land use, biodiversity, local character, community benefits etc. (refer to Section 5.3). Community consultation will continue to be undertaken during the preparation of the EIS and the SIA, and should the Project be approved, engagement and consultation will continue with the community during construction and operation.

Cumulative

The Project Site is located in the South West REZ. As such, it exists within a network of potential and confirmed renewable energy projects. Together, these projects may have cumulative impacts on the social locality. A full list of surrounding renewable energy projects is provided in Table 2-2.

In addition to renewable energy projects, there are two other major projects near the Project:

- Tocumwal Magazine Storage Upgrade
- Billabong Creek Environmental Water Regulators.

These projects both consist of upgrading and/or replacing existing operations. While generating temporary workforces, they are therefore considered unlikely to profoundly impact the social locality.

The Project would likely add to the cumulative impacts of surrounding renewable energy projects in both positive and negative ways. It would add to the economic and employment stimulus generated by other projects in the region, while contributing positively to decarbonisation in response to climate change. Simultaneously, it may contribute to community conflicts regarding renewable energy and real or perceived impacts to community character, lifestyles and wildlife. Furthermore, it may also add to the pressures of new developments on housing, infrastructure and services in regional NSW, impacting the ability for residents to access and afford the meeting of their needs.

6.7.3 Assessment approach

A SIA will be prepared to align with industry best practice, including the NSW Government's 2023 *Social Impact Assessment Guideline for State Significant Development Applications* (the Guideline). The SIA will scope, examine and assess potential impacts and develop mitigation measures to enhance potential positive impacts and minimise negative impacts that may arise from the Project. The SIA will involve three broad stages:

- Establish social baseline and scope for issues by drawing from relevant sources including demographic and socio-economic data, relevant strategic planning policies. In addition, document any outcomes from stakeholder engagement.
- Identify and assess potential social impacts, whether positive or negative and direct or indirect. This will include consideration of cumulative impacts, including impacts from other nearby energy projects. The significance of impacts will be evaluated using the social impact significance matrix method in the Technical Supplement to the Guideline.
- Identify measures to minimise potential negative social impacts and maximise positive impacts. This could include development of a preliminary social impact management framework to support ongoing monitoring and management of impacts.

Social impacts may occur across a range of aspects in the lives of individuals or communities (Table 6-9).

Table 6-9 Categories of Social Impacts (adapted from DPHI)

Category	Description
Way of life	How people live, how they get around, how they work, how they play, and how they interact on a daily basis
Community	Composition, character, cohesion, function, and sense of place
Access	How people access and use infrastructure, services and facilities, whether provided by local, state, or federal governments, or by for-profit or not-for-profit organisations or groups
Culture	Both Aboriginal and non-Aboriginal culture, including shared beliefs, customs, values, and stories, and connections to country, land, waterways, places, and buildings
Health and wellbeing	Physical and mental health, especially for those who are highly vulnerable to social exclusion or substantial change, plus wellbeing of individuals and communities
Surroundings	Access to, and use of, services that ecosystems provide, public safety and security, access to and use of the natural and built environment, and its aesthetic value and amenity
Livelihoods	People's capacity to sustain themselves, whether they experience personal breach or disadvantage, and the distributive equity of impacts and benefits
Decision-making systems	Whether people experience procedural fairness; can make informed decisions; have power to influence decisions; and can access complaint, remedy and grievance mechanisms

The SIA will evaluate social impacts based on anticipated likelihood and magnitude, factoring in cumulative impacts as well as any mitigation or enhancement measures. Positive and negative impacts will be judged according to a significance of social impacts matrix for assessing significance.

An Economic Assessment will be undertaken as part of the SIA (or separately) to review the impacts or benefits of the Project for the region and State as a whole. It will consider any increase in demand and impact on local and regional economy during construction and operation of the Project, including

changes to agricultural activity as a result of the Project, and other economic issues such as potential impact on land values and regional wages, house prices, tourism, and cumulative impacts.

6.8 Land

6.8.1 Existing environment

The Project Site is currently used for agriculture, primarily grazing across the majority of the Project Site, with cropping in the southern portion. A review of publicly available geology and land mapping of the Project Site is summarised in Table 6-10. Land and soil capability is also shown on Figure 6-9.

Table 6-10 Land and soil characteristics of the Project Site

Feature	Description
Geology	The geology of the Project Site is primarily mapped as Cenozoic Shepparton Formation, which has a lithology that is defined as poorly consolidated clay, silt, sand and gravel. The Shepparton Formation is found throughout the Riverina between the Murray and Lachlan Rivers. The riparian corridor along Yanco Creek at the southern border of the Project Site is mapped as Quaternary alluvial (river) deposits with a lithology characterised as current and recent mud, silt, sand and gravel. The geological feature is widespread in distribution including the western plains near Warren and Walgett and the extensive Darling River floodplain.
Topography	The Project Site is flat at 100m AHD containing no distinct topographical features. The overall landform is influenced by the presence of the Yanco Creek along the southern boundary of the Project Site and slightly undulate up to a high point of 126m AHD in the north east of the site.
Soil	*Soil Stability* The Australian Soil Classification maps the soil type for the entire Project Site as Vertosols. Often called cracking clay soils, Vertosols have a clay texture throughout the profile and display strong cracking when dry and shrink and swell considerably in wet and dry conditions. The Great Soil Group mapping of NSW further indicates the entire Project Site soil type as Grey, Brown and Red Clays. These characterisations correspond with the mapped hydrologic soil group for the area, which describe the soil as having very slow infiltration rates when thoroughly wetted and consisting chiefly of clay soils with a high swelling potential, soils with a permanent high water table, soils with a claypan or clay layer at or near the surface, and shallow soils over nearly impervious material. These soils have a very slow rate of water transmission. *Soil Chemistry* Available mapping resources do not identify any soil chemistry matters relevant to the Project Site. That is, the data provides no indication of salinity, Acid Sulfate Soil or naturally occurring asbestos presence or risk.
Land capability and agricultural value	The Land and Soil Capability (LSC) Mapping of NSW characterises the majority of the Project Site as LSC 4 (Moderate capability land), with moderate to severe limitations for some land uses which needs to be consciously managed to prevent soil and land degradation. The exception is the riparian strip along Yanco Creek which is characterised as LSC 5 with severe limitations for high impact land uses. There are no areas in the Project Site or surrounding area mapped as Biophysical Strategic Agricultural Land for management under the Strategic Regional Land Use Policy.
Contamination	A search of the NSW EPA contaminated land register identified no contaminated sites recorded within or near the Project Site. However, past agriculture land uses have the potential to result in land contamination through chemical use and storage.

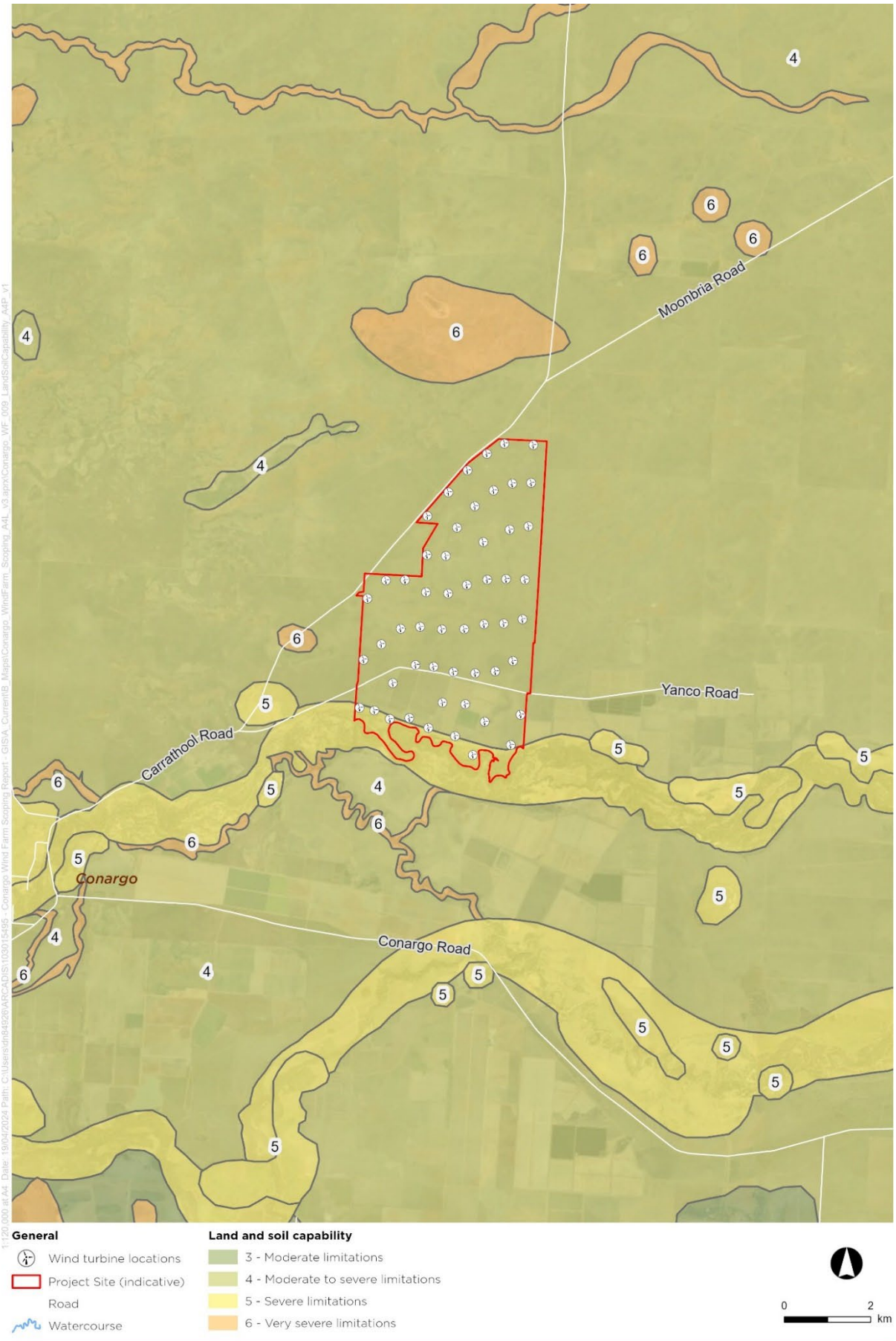

Figure 6-9 Land and soil capability

6.8.2 Potential impacts

Construction

During the construction of the Project there is potential for soil disturbance which may result in:

- Topsoil and subsoil impacts (e.g. degradation and loss of topsoil, compaction of soil through vehicle movement and poor reinstatement and soil inversion or mixing resulting in changes in constraints such as salinity and sodicity within the soil profile)
- Disturbance and form changes affecting natural surface drainage
- Erosion and sedimentation, particularly during clearance and soil exposure activities resulting in:
  - on-site impacts (such as erosion of constructed landforms)
  - off-site impacts (such as eutrophication of downstream waters)
- Increased dust generation.

If not suitably managed or mitigated, these impacts could result in:

- A reduction of soil quality and volume
- Impacts on future agricultural productivity and land use after rehabilitation
- Limiting rehabilitation due to loss or degradation of soil materials needed to reinstate the soils in a suitable condition.

Once constructed, the land within the development footprint required for operations will likely alter the intensity of agricultural production; however Squadron Energy will coordinate with the Landholder to minimise the disturbance and maintain agricultural productivity on other parts of the site where possible.

These impacts will be further assessed in the EIS.

Operation

Minimal soil disturbance is anticipated during the operation of the Project and will be managed within the Project Site.

Maintenance vehicles would be limited to using the existing permanent access roads, limiting any new areas of disturbance.

6.8.3 Assessment approach

An assessment of the suitability of the Project Site for a wind farm development and the compatibility of the wind farm on existing land use will be undertaken during the EIS phase.

This will comprise of further desktop assessment of soils, current land use, land capability, agricultural value and contamination. If required, this will be supported by geotechnical investigations and surface and subsurface soil investigations. These investigations will further inform the design of footings, placement of handstands and other site infrastructure, and will also verify the desktop findings regarding soil stability, chemistry and contamination potential.

6.9 Water and hydrology

6.9.1 Existing environment

Hydrology

The Project is within the Murrumbidgee River Catchment in southern NSW and is part of the Murray-Darling Basin. It is bordered by the Great Dividing Range to the east, the Lachlan catchment to the north, and the Murray catchment to the south. The Murrumbidgee River Catchment has an area of 84,000km^2, with elevations ranging from 2,200m to the east, to 50m on the western plains. Key water user purposes supported by the catchment include irrigated agriculture, hydro-electricity and urban water supply (Murray-Darling Basin Authority, 2024).

The Strahler stream orders for the watercourses within the Project Site are shown on Figure 6-10. Yanco Creek is a perennial watercourse located along the south of the Project Site and flows in a westerly direction until it reaches the Edward River. Yanco Creek is mapped as a stream order 9 watercourse that contains Key Fish Habitat (KFH). The Yanco Creek system is mapped as a wetland in the Conargo LEP 2013. Numerous watercourses and farm dams are present within the Project Site, however these are minor in nature (ranging from 0 to 1 order streams).

Flooding

A search of the ePlanning portal in March 2024 and Edward River council website was unable to verify if the Project Site is located on flood prone land. A request to obtain flood data from Edward River council occurred on 12 March 2024. Given its flat topography and proximity to Yanco Creek, it is likely that some areas of the Project Site would be located on or in proximity to flood prone areas. This will be verified as part of the EIS.

Groundwater

Preliminary searches of the WaterNSW Real-Time Data database have identified no groundwater bores within the Project Site. The three nearest registered bores are summarised in Table 6-11 and on Figure 6-10.

Table 6-11 Nearby groundwater bores

Bore	Location	Purpose	Drill depth and water level
GW043390	1.8km east of the Project Site	Not known	Drilled to 53.6m in depth and no available groundwater levels identified
GW043435	1.8km east of the Project Site	Not known	Drilled to 35.3m in depth and no available groundwater levels identified
GW036053	2.6km west of the Project Site	Instrumented	Drill depth unknown and no available groundwater levels identified

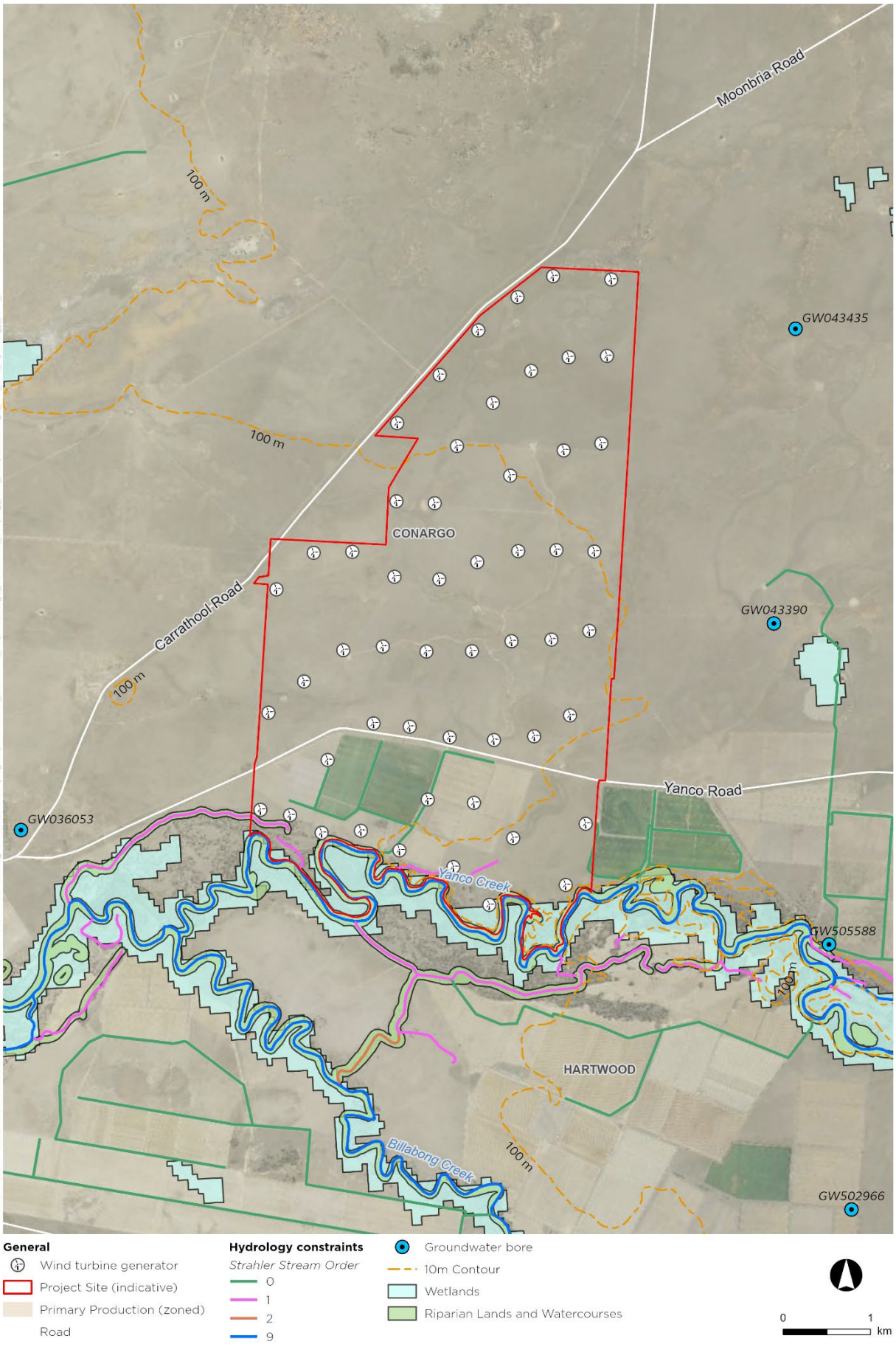

Figure 6-10 Watercourses and groundwater bores

Water sharing plans

Water sharing plans that apply to the Project are shown in Table 6-12. The EIS will include an assessment of any anticipated groundwater take and consideration of water licensing requirements under relevant Water sharing plans.

Table 6-12 Water sharing plans and water sources

Water type	Water sharing plan	Water source
Surface water	Water sharing plan for the Murrumbidgee Unregulated and Alluvial Water Sources 2012	Lower Billabong Anabranch Water Source Murrumbidgee Western Water Source
Groundwater	Murrumbidgee Alluvial Groundwater Sources 2020	Lower Murrumbidgee Shallow Groundwater Source

Groundwater dependent ecosystems

Review of the Groundwater Dependent Ecosystem (GDE) Atlas (BoM, 2017) indicates that the Project Site along Yanco Creek is mapped as containing both aquatic and terrestrial GDEs that have high potential for groundwater interaction (refer to Section 6.4). The Conargo LEP 2013 also identifies land along Yanco Creek as being groundwater vulnerable.

6.9.2 Potential impacts

Construction

Water and hydrology impacts during construction may include:

- Altered surface water runoff (quality, quantity and direction) and associated erosion and sedimentation during earthworks
- Accidental spills or leaks from plant and equipment
- Fish passage obstruction and impacts to waterfront land and riparian ecology during clearing and construction of water crossings
- Potential loss of floodplain storage and changes to flood behaviour (including flow obstruction) due to civil works
- Demands on local water supply, particularly during drought periods for dust suppression and soil management
- Impacts to groundwater quantity, quality and associated GDEs if taking water from this source, clearing GDEs or during excavations/piling

Operation

Water impacts during operations are generally limited to sealed areas if not draining as per design, lack of track and crossing maintenance, minor earthworks arising from maintenance activities of underground features, or failed rehabilitation resulting in soil loss.

There is the potential for increased surface water runoff due to project operational hardstand areas and overland obstructions.

6.9.3 Assessment approach

The EIS will consider potential impacts on both surface water catchment and groundwater resources and assess the issues of flooding, erosion and sediment control, water quality, water users, water sourcing and licencing, and identifying setbacks for impact avoidance, as well as suitable management and mitigation measures. The guidelines listed in Appendix A will be considered, where required, as part of the assessment.

The assessment of water and hydrology will include:

- Review of relevant existing hydrological conditions such as rainfall and evaporation data, catchment areas, watercourses, water sources (surface and groundwater) and water quality
- Estimates of water demand and water supply arrangements. Consultation with Edward River Council, landholders and suppliers will occur to identify water sources for the Project
- Identification of impacts on waterfront land, water quality and water quantity of surface water and groundwater resources
- Assessment of the potential impacts of the Project on flood behaviour
- Water-related mitigation and management measures to be implemented to ensure that all potential water and hydrology impacts are minimised.

6.10 Hazards and risk

6.10.1 Existing environment

Aviation

Preliminary desktop review has identified three aviation facilities within 50km of the Project Site including:

- Jerilderie Airport – located around 41km east of the Project. Its operational status and ownership are unknown but it appears to be a small airport with one runway that is utilised by a commercial operator (Dash Aerial Applications) that provides agricultural crop services.
- Deniliquin Airport – located around 42km south west of the Project. It is a Civil Aviation Safety Authority certified aerodrome operated by Edward River Council and has recently undergone runway and lighting upgrades (Edward River Council, 2024)
- Finley Airport – located around 50km to the south east of the Project.

Other aviation activities may also be associated with privately owned and unlicenced air strips within the locality.

Bushfire

The Project is located within a rural area. The Project is largely located on land mapped as Vegetation Category 3 as per publicly available mapping created by the NSW Rural Fire Service (RFS). Vegetation Category 3 land includes grasslands, freshwater wetlands, semi-arid woodlands, alpine complex and arid shrublands, and presents a lower risk of bushfire than Vegetation Categories 1 and 2. Vegetation Category 1 bushfire prone land is located on the southern boundary of the Project Site along Yanco Creek, as shown in Figure 6-11.

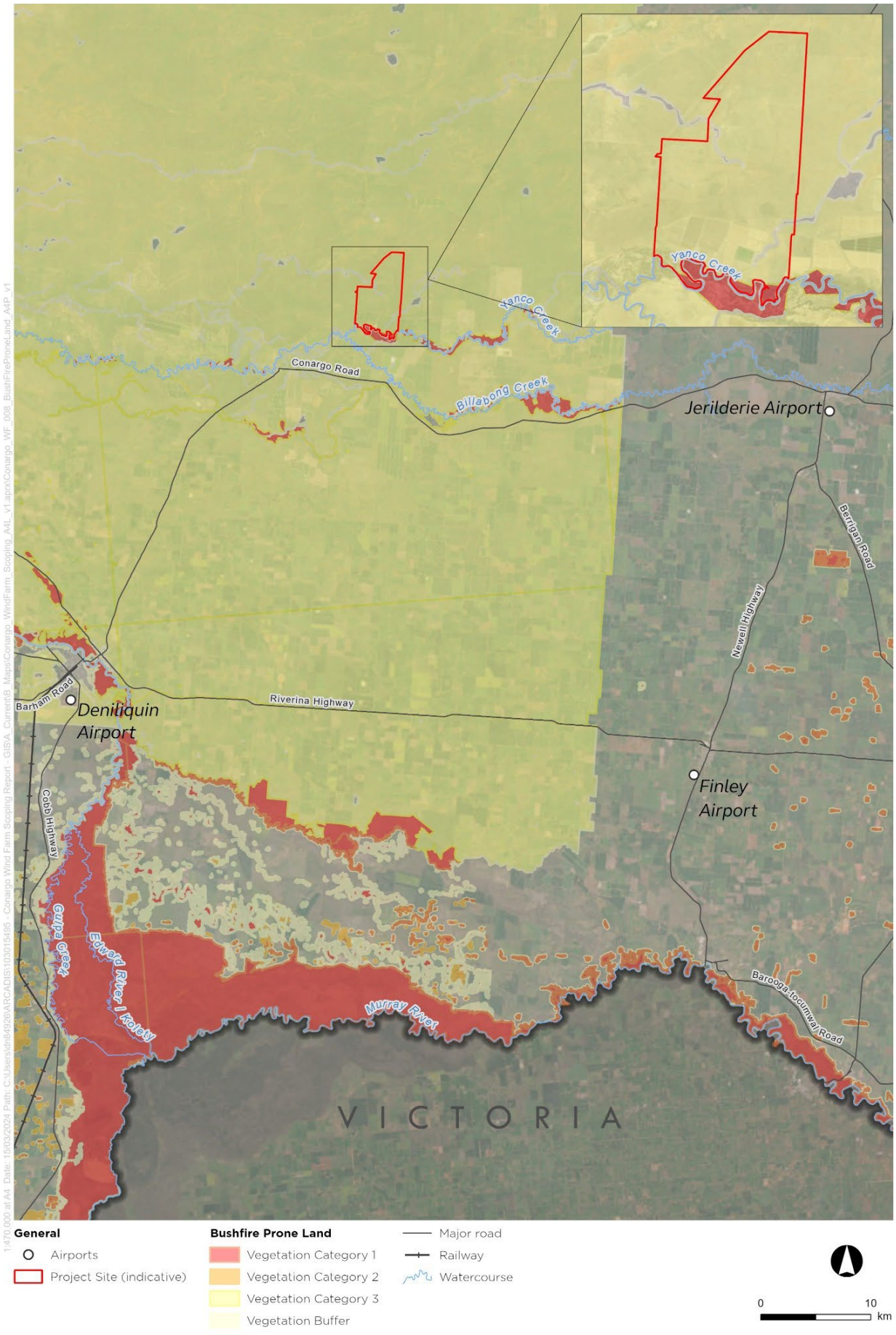

Figure 6-11 Hazard and risks

6.10.2 Potential impacts

Construction

The following hazards and risks have the potential to occur during construction of the Project:

- Accidental release of chemicals, fuels and materials associated with their onsite storage, use and transport, and the resultant impacts on construction workers and the environment. To manage this risk, all hazardous substances that may be required would be stored and managed in accordance with the *Work Health and Safety Act 2011* and the *Storage and Handling of Dangerous Goods Code of Practice* (WorkCover NSW, 2005).
- Disturbance of contaminated soil and existing structures containing contaminated materials.
- Construction activities (such as hot works) that exacerbate combustion or ignition risks resulting in a bushfire and external bushfires that can impact construction personnel and infrastructure.

Operation

The following hazards and risks have the potential to occur during operation of the Project:

- Infrastructure components that exacerbate combustion or ignition risks (such as transmission lines and other electrical components) and external bushfires that can impact operational personnel and infrastructure.
- Telecommunications and radar services can be impacted by wind turbine generators through electromagnetic interference (EMI).
- Parts of the blade detaching and being thrown into the surrounding area (referred to as blade throw).
- Health risks associated with Electromagnetic fields (EMF) relating to electric current flows, associated with overhead and underground transmission lines, substations and electrical appliances.
- While rare, the installation, commissioning and operation of a battery energy storage system can present increased hazards and risks associated with overheating, fire, hazardous chemicals and gas emissions.

6.10.3 Assessment approach

The *State Environmental Planning Policy (Resilience and Hazards) 2021* (R&H SEPP) applies to any projects that fall under the policy's definition of 'potentially hazardous industry' or 'potentially offensive industry'.

Certain activities may involve handling, storing, or processing a range of substances which in the absence of locational, technical or operational controls may create a risk or offence to people, property or the environment. Such activities would be defined as potentially hazardous or potentially offensive. The Project is not considered to be a 'potentially hazardous industry' or 'potential offensive industry' under the R&H SEPP.

Nonetheless, the EIS for the Project will include an assessment of potential hazards and risks associated with the construction and operation of the Project. The assessment approach for each matter to be considered in the hazards and risks assessment is summarised in Table 6-13.

Table 6-13 Hazard and risk assessment approach

Matter	Assessment approach
Aviation	An assessment will be undertaken to consider the potential aviation impacts associated with the Project, including requirements of air safety regulations, guidelines and procedures. The assessment will identify the locations of certified airports and landing strips within close proximity to the Project, assess obstacle limitation surfaces and aerial firefighting requirements and will identify appropriate aviation risk mitigation strategies, as required.
Bushfire	An assessment will be prepared to demonstrate that the Project can be designed, constructed and operated to minimise ignition risks and provide for asset protection consistent with the *Planning for Bushfire Protection 2019*.
Blade throw	An assessment will be undertaken to assess blade throw risks, including consideration of blade throw impacting the battery energy storage system.
Telecommunications	A detailed assessment will be undertaken to identify possible effects on telecommunications systems, including, but not limited to, mobile phone links, emergency services communications and trigonometrical stations etc. The assessment will also include an analysis of suitable options to avoid potential disruptions to radio communication services. The measures may include the installation and maintenance of alternative sites and will be determined in consultation with the relevant impacted service provider.
Electromagnetic fields	Consideration and documentation of any health issues having regard to the latest advice of the National Health and Medical Research Council will be undertaken, and potential hazards and risks associated with electric and magnetic fields (EMF) will be identified. The assessment will demonstrate the application of the principles of prudent avoidance, including an assessment against the *International Commission on Non-Ionizing Radiation Protection (ICNIRP) Guidelines for limiting exposure to Time-varying Electric, Magnetic and Electromagnetic Fields*
Dangerous goods and battery storage	A preliminary risk screening will be completed in accordance with the R&H SEPP for the Project. A PHA will be prepared in accordance with the *Hazardous Industry Planning Advisory Paper No. 6, 'Hazard Analysis' and Multi-level Risk Assessment* (DoP, 2011a). The PHA will also consider all recent standards and codes and verify separation distances to on-site and off-site receptors to prevent fire propagation and assess compliance with *Hazardous Industry Advisory Paper No. 4, 'Risk Criteria for Land Use Safety Planning* (DoP, 2011b).

6.11 Cumulative

6.11.1 Existing environment

As discussed in Section 2.1, the Project is located in the South West REZ, which is an area of focus for large scale renewable energy projects, meaning that a number of approved and proposed renewable energy projects are located in close proximity to the Project Site.

Table 2-2 identifies 12 renewable energy projects, categorised as either being in operation, approved or in the planning stage of development and may have relevance to this assessment. It is anticipated that there will be additional potential future renewable energy projects that are not publicly known at the time of preparing this report. The closest renewable energy project is the Currawarra Solar Farm, located approximately 17km from the Project Site.

6.11.2 Potential impacts

Due to the number of surrounding existing or proposed renewable energy developments, there is potential for cumulative impacts across key environmental matters, including landscape and visual amenity, noise, traffic, social and economic.

Cumulative impacts on environmental matters will be considered separately for construction and operational phases due to the different levels of impacts. For example, traffic impacts will primarily apply to the construction phase of project development, while noise and visual are impacts that are likely to be ongoing during operation. It is important to note that potential impacts may also be positive, such as the social and economic benefits that may be reflected in employment and economic development in the region.

6.11.3 Assessment approach

Key environmental matters will be subject to a detailed cumulative impact assessment during the preparation of the EIS for the Project. This assessment will be in accordance with the CIA Guidelines and other relevant guidelines specific to each technical discipline and will confirm the projects and key environmental matters of relevance at that time.

The cumulative impact assessment for relevant future projects is posed as six key questions in the CIA Guidelines. This assessment is indicative at this stage of the project development, as the assessment of impacts may vary dependent on the final approval, size, timing and duration of the construction and operation of the surrounding projects.

A summary of the cumulative impact considerations in line with the key questions posed in the CIA Guidelines is provided in Table 6-14. A cumulative impacts worksheet is provided in Appendix D to provide further clarification of the cumulative impacts to be assessed against each relevant project during the EIS, in line with the CIA Guidelines.

Table 6-14 Cumulative Impact Assessment Key Questions

Key Question	Scoping cumulative impact assessment
What to Assess?	The following environmental matters require cumulative impact assessment consideration: • Landscape and visual amenity • Noise • Traffic • Social and economic
What study area?	For the scoping phase, a 50km buffer has been selected and is considered conservative to account for noise and visual cumulative impacts, as well as wider impacts on cumulative traffic, social and economic impacts in the region. For the detail CIA during the development of the EIS, the 50km buffer may vary depending on the characteristics of the relevant projects confirmed at that time. Each CIA will be undertaken in accordance the CIA Guidelines and the relevant guidelines for each key environmental matter.
Over what time period?	The full life cycle of the project, including construction, operation and decommissioning, will be considered.
What projects to include?	The relevant projects proposed for the CIA are presented in Table 2-2. Changes to existing projects, approved projects or projects under assessment will be considered prior to the confirmation of the final and relevant project list.

Key Question	Scoping cumulative impact assessment
What is the assessment approach?	The CIA for each project will be undertaken in accordance with the CIA Guidelines and the relevant guidelines to each key environmental matter.
What are the key uncertainties?	Key uncertainties for the CIA will be the availability of data from surrounding developments, which will be mostly dependent on the development status of the project and information publicly available. At the time of assessment, informed assumptions will be developed to assess development scenarios in line with guidelines to each key environmental matter.

6.12 Other

The EIS will also address other issues summarised in Table 6-15. Detailed assessments are not proposed as these issues can be readily defined, assessed and mitigated using well recognised approaches. These matters will be appropriately assessed in the EIS.

Table 6-15 Other issues to be assessed

Issue	Comment
Air quality	A qualitative assessment will be undertaken for construction activities and will include relevant construction phase air quality controls. The assessment will be in accordance with relevant NSW guidelines. Air quality issues relating to operation would be minimal and likely only relate to the operation of maintenance vehicles, site staff light vehicles and the occasional heavy vehicles required for deliveries. This will also be considered in the qualitative assessment.
Climate change	Climate change projections for the operational phase of the Project show the potential for an increase in operational risks, associated mostly with flooding and extreme weather events. These issues will be considered as part of the design development for the Project. Direct climate risks may include increased frequency and severity of extreme rainfall events, increased average temperatures and frequency of heatwaves and increased severity and frequency of bushfires.
Waste	The EIS will describe the likely waste streams to be generated during construction and operation and describe measures to manage, reuse, recycle and dispose of this waste in accordance with relevant guidelines.

6.13 Matters requiring no further assessment

Matters requiring no further assessment and the associated justification are identified in Table 6-16. These matters have been identified in accordance with the SSD Guidelines.

Table 6-16 Matter requiring no further assessment in the EIS

Matter	Justification
Access – Port, airport and rail facilities	The Project does not involve the development of, or affect access to port, airport or rail facilities. The Project does not propose to utilise any rail facilities.
Air – Gases (greenhouse)	The emissions resulting from the Project will be nullified by the avoidance of emissions that result from traditional energy generation technology. Greenhouse gas emissions will be addressed in the justification for the Project as part of the EIS. Scope 1 – 3 greenhouse gas emissions generated from construction and operation of the Project will be assessed as part of the EIS.
Amenity – Odour	The Project would not produce odorous emissions based on the nature of the development.
Hazards and risk – Coastal hazards, Land movement, Dam safety	The Project does not propose to construct, maintain or decommission a dam. The Project does not generate risk of land movement. The Project is not located within a coastal setting.
Social – Decision making systems	The Project would have no impact on decision making systems but would be undertaken in accordance with those systems.

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World Health Organisation (1999). *Guidelines for community noise.*

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APPENDIX A SCOPING REPORT COMPLIANCE CHECKLIST

SSD guidelines –preparing a scoping report	Where addressed
Introduction	
Applicant's details, including ABN and address	Section 1.3
Simple but accurate description of the project including: • a statement of the objectives of the development • site information including address and lot details • a map of the site in its regional setting.	Section 1.1 Section 1.2 Table 1-1 Figure 1-1
Background to the project • any relevant history • key strategies that will be adopted to avoid, minimise or offset the impacts of the project to the extent known at the scoping stage.	Section 1.5
Description of any related development, including any existing or approved development (including any existing use rights or continuing use rights) that would be: • incorporated into the project, allowing some or all of the existing development consents or rights for this development to be surrendered if the SSD project is approved and the approved project to operate under a single SSD development • operated in conjunction with the project under a separate development consent or approval. • development that is required for the project but would be subject to a separate assessment (e.g. upgrades to ancillary infrastructure, approvals for subsequent stages of the project).	Section 1.4
Strategic context	
This section should identify at a high level the key strategic issues that are likely to be relevant to the justification and evaluation of the project and that will be investigated in more detail in the EIS. Key strategic issues may include: the justification of the project, including whether any government strategies, policies or plans (such as environmental planning instruments) provide strategic support for the project.	Section 2.1 Section 2.5
relevant plans that establish a regional or local land use planning context for the project, including if the project is linked to a planning process that has already addressed environmental impacts relevant to the project	Section 2.1
key features of the site or surrounds that could affect or be affected by the project, including: • the local and regional community, having regard to land ownership and uses in the area and the proximity of any population centres or residences to the site • important natural or built features, such as National Parks, scenic landscapes, conservation areas, culturally important landscapes, and major infrastructure (e.g. roads, railway lines, airports, ports, pipelines, transmission lines and water storage and treatment) • key risks or hazards for the project, such as flooding, bushfire prone land, contaminated land, steep slopes and potential landslips, mine subsidence prone land, coastal hazards and climate change.	Section 2.2

SSD guidelines –preparing a scoping report	Where addressed
whether the project is likely to generate cumulative impacts with other relevant future projects in the area (see the Department's Cumulative Impact Assessment Guidelines for State Significant Projects)	Section 2.3
identifying whether the applicant has entered into any agreements with other parties to mitigate or offset the impacts of the project, such as: • voluntary planning • negotiated agreements with landowners, including any terms of these agreements that are relevant to the assessment of the impacts of the project (see the Department's Voluntary Land Acquisition and Mitigation Policy) • any benefit-sharing schemes	Section 2.4
Project	
This overview should provide further detail on the following key aspects of the project:	
the project area, including the area likely to be physically disturbed by the project	Section 3.2
the conceptual physical layout and design of the project, including any mitigation measures that will be built into the design of the project (e.g. a noise barrier) to the extent that these are known at the scoping stage	Section 3.1
the main uses and activities that would be carried out on site as well as the materials and products that would be transported to and from the site	Section 3.4
the likely timing of the delivery of the project, including: • any stages of the project • the phases of the project (e.g. site preparation, construction, operations, and where relevant, decommissioning and rehabilitation) • the sequencing of any stages and phases of the project over time, identifying the periods when the greatest impacts are likely to occur	Section 3.3
The overview in this section should also clearly identify: • where relevant or known at the scoping stage, and depending on the type of development, those aspects of the project where some flexibility may need to be incorporated into the design of the project to allow the final design of the project to be refined or changed over time within any strict limits set by the project description in the EIS, and without further approval	Section 3.2
where known, any restrictions or covenants that apply to the land	Section 3.2
This section should also include a high-level analysis of feasible alternatives considered having regard to the objectives of the development, including the consequences of not carrying out the development. The analysis of alternatives should explain how the project has ended up in its current form. It should summarise the key alternatives that have been considered and rejected (e.g. alternative ways of achieving the objectives of the development and / or alternative siting, designs, and mitigation measures) and the reasons why they were rejected. Where features of the project such as the site location and layout have been finalised through a masterplan or Concept Development Application, these should not be analysed further in the consideration of alternatives.	Section 3.8

SSD guidelines –preparing a scoping report	Where addressed
Statutory context	
This section should provide a simple overview of the key statutory requirements for the project, having regard to: • the EP&A Act and EP&A Regulation • other relevant legislation • relevant environmental planning instruments, planning agreements and coastal management programs under the Coastal Management Act 2016 • relevant approvals (e.g. concept plan approvals, staged DA consents) These statutory requirements should be grouped into the categories listed in Table 1 and summarised in a table (see examples in the Department's State Significant Development Guidelines – Preparing an Environmental Impact Statement).	Chapter 4
Community engagement	
Identify what engagement has already been carried out that is relevant to setting the SEARs, this may include: • community engagement that has been carried out by other parties that is relevant to the project • any actions taken by the applicant to identify and engage with key groups or individuals within the community that may have an interest in the project • any actions taken by the applicant to inform, consult or engage with the community during the development of the project or preparation of the scoping report Engagement should also be undertaken having regard to the community participation objectives in the Department's Undertaking Engagement Guidelines for State Significant Projects.	Section 5.3
Summarise the key findings of any community engagement carried out and give an early indication of community views on the project using suitable maps, graphics and tables.	Section 5.3
Identify the likely level of community interest in the project and the geographic extent of this interest (e.g. local: < 5km from the site; regional: 5-100km from the site or state: > 100km from the site).	Section 5.2
Group the community views on the project into one of the following categories: • Strategic context (e.g. key natural/built features that could be impacted, and the potential cumulative impacts) • Alternatives that may be considered • Statutory issues • Community engagement during the preparation of the EIS • Key matters to be assessed during the EIS • Issues beyond the scope of the project or not relevant	Section 5.3
Summarise the community engagement that will be carried out during the preparation of the EIS, having regard to the findings of any community engagement carried out during scoping and the community participation objectives in the Department's Undertaking Engagement Guidelines for State Significant Projects including: • identify the key stakeholders (councils, government agencies, special interest groups, people living close to the site) for further engagement, to the extent that this will be known at the scoping stage	Section 5.4

SSD guidelines –preparing a scoping report	Where addressed
• describe what actions will be taken to identify and engage with other interested stakeholders during the preparation of the EIS • describe the key actions that will be carried out to: – keep the community informed about the project – obtain feedback from the community on the project – engage with certain stakeholders on the detailed assessment of key matters • demonstrate that these actions are consistent with the community participation objectives in the Undertaking Engagement Guidelines for State Significant Projects • describe how the effectiveness of this engagement will be monitored, reviewed and adapted over time to encourage community participation in the project	
Proposed assessment of impact	
Matters that should be considered by the project: access (e.g. traffic and transport), air quality, amenity (e.g. noise, visual), biodiversity, built environment, economic, hazards and risk (e.g. bushfire, flooding, waste), heritage (Aboriginal and non-Aboriginal), land, social, water. These specific matters can be divided further into different components of the specific matter, where relevant	Chapter 6
Key factors that should be considered for each matter: • the scale and nature of the likely impacts of the project and the sensitivity of the receiving environment • whether the project is likely to generate cumulative impacts with other relevant future projects in the area • the ability to avoid, minimise and/or offset the impacts of the project, to the extent known at the scoping stage • the complexity of the technical assessment of the project It is important to note that the applicant is not required to carry out a detailed assessment of each factor and document this assessment in the scoping report. This should be done in the detailed assessment of the project in the EIS	Chapter 6
Appendix – Scoping summary table	
Include a scoping summary table which groups the matters requiring further assessment in the EIS by the level of assessment required, and identify: • whether any cumulative impact assessment is required, and the likely level of this assessment (e.g. standard or detailed) • whether any specific community engagement will be carried out on the matter during the preparation of the EIS • the relevant government plans, policies and guidelines that will be considered during the assessment of the impacts of the project on the matter • the relevant section of the scoping report where the assessment of the impacts on the matter are discussed in more detail.	Appendix B
Document the matters requiring no further assessment in the EIS in a table in the scoping report. This table should identify each matter and explain why no further assessment is necessary	Section 0

APPENDIX B SCOPING SUMMARY TABLE

As required by the DPE *State significant development guidelines – preparing a scoping report* (DPE, 2022), a scoping summary table for the Project is include as Table A - 1. The table groups the matters requiring further assessment in the EIS by the level of assessment required.

Definitions for levels of assessment are summarised below:

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.

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.

Matters requiring no further assessment in the EIS: 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.

Table A - 1: Scoping summary table

Level of assessment	Matter	Cumulative assessment (Y/N)	Engagement	Relevant government plans, policies and guidelines	Scoping report reference
Detailed	Landscape and visual	Yes	Specific	• NSW Wind Energy: Visual Assessment Bulletin (DPE, 2016) • Draft Wind Energy Guideline – Technical Supplement for Landscape and Visual Impact Assessment (DPE 2023c) • Guideline for Landscape Character and Visual Impact Assessment, Environmental impact assessment practice note EIA-N04 (TfNSW 2020)	Section 6.2
Detailed	Noise and vibration	Yes	Specific	• NSW Wind Energy: Noise Assessment Bulletin (DPE, 2016) • Draft Wind Energy Guideline – Technical Supplement for Noise Assessment (DPE, 2023d) • NSW Noise Policy for Industry (NSW EPA, 2017) • Draft Construction Noise Guideline (NSW EPA, 2020) • NSW Road Noise Policy (DECCW, 2011) • Assessing Vibration: A Technical Guideline (DECC, 2006) • Approved Methods for the Measurement and Analysis of Environmental Noise in NSW (EPA, 2022	Section 6.3
Detailed	Biodiversity	Yes	Specific	• Biodiversity Assessment Method (BAM) (DPIE, 2020) • Commonwealth EPBC 1.1 Significant Impact Guidelines – Matters of National Environmental Significance (Commonwealth of Australia, 2013) • Commonwealth Department of the Environment – Survey Guidelines for Nationally Threatened Species (DCCEEW, various) • Policy and Guidelines for Fish Habitat Conservation and Management (DPI, 2013) • Guidelines for Fish Friendly Water Crossings (DPI, unknown)	Section 6.4

Level of assessment	Matter	Cumulative assessment (Y/N)	Engagement	Relevant government plans, policies and guidelines	Scoping report reference
Detailed	Aboriginal heritage	No	Specific	• Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW (OEH, 2011) • Code of Practice for the Archaeological Investigation of Aboriginal Objects in NSW (DECCW, 2010) • Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (DECCW, 2010) • Guidelines for the Management of Human Skeletal Remains under the Heritage Act 1977 (NSW Heritage Office, 1998)	Section 6.5
Standard	Historic heritage	No	General	• Significant Impact Guidelines 1.1 Environment Protection and Biodiversity Conservation Act 1999 - Matters of National Environmental Significance (Commonwealth of Australia, 2013) • Guidelines for Preparing a Statement of Heritage Impact (DPE, 2023) • NSW Heritage Manual (NSW Heritage Office and Department of Urban Affairs and Planning, 1996) • Assessing Significance for Historical Archaeological Sites and Relics (NSW Heritage Branch, Department of Planning, 2009)	Section 6.5
Detailed	Traffic and access	Yes	Specific	• Guide to Traffic Generating Developments (RTA, 2002) • Guide to Traffic Management (Austroads, 2020) • Guide to Road Design (Austroads, 2021)	Section 6.6

Level of assessment	Matter	Cumulative assessment (Y/N)	Engagement	Relevant government plans, policies and guidelines	Scoping report reference
Detailed	Hazard and risk	No	Specific	• National Airports Safeguarding Framework (NASF) Guideline D: Managing Wind Turbine Risk to Aircraft (DITRDCA, 2019) • NSW Wind Energy Guideline for State Significant Wind Development (DPIE, 2016) • Advisory Circular AC 139.E-05v1.0, Obstacles (including wind farms) outside the vicinity of a CASA certified aerodrome (CASA, May 2021) • NSW Wind Energy Guideline for State Significant Wind Development' (DPIE, 2016) • Best Practice Charter for Renewable Energy Projects (Clean Energy Council, 2021) • Multi-Level Risk Assessment (DPI, 2011) • Hazardous and Offensive Development Application Guidelines: Applying SEPP 33 (DoP, 2011) • Hazardous Industry Planning Advisory Paper No.6 – Hazard Analysis (DPI, 2011) • Planning for Bushfire Protection 2019 (NSW Rural Fire Service, 2019) • Relevant international studies and standards for design of wind turbine components and blade throw • Commission on Non-Ionizing Radiation Protection Guidelines for limiting exposure to Time-varying Electric, Magnetic and Electromagnetic Fields (1998)	Section 6.10

Level of assessment	Matter	Cumulative assessment (Y/N)	Engagement	Relevant government plans, policies and guidelines	Scoping report reference
Detailed	Water and hydrology	No	General	• Managing Urban Stormwater; Soils and Construction (Landcom, 2004) • Controlled Activities on Waterfront Land - Guidelines for riparian corridors on waterfront land (DPI, 2018) • Why Do Fish Need to Cross the Road? Fish Passage Requirements for Waterway Crossings (DPI 2003) • Policy and Guidelines for Fish Habitat Conservation and Management' (DPI, 2013) • Relevant Water Sharing Plans (DPI, various) • Guidelines for Watercourse Crossings on Waterfront Land (DPI Water, 2012) • Floodplain Risk Management Guidelines (DECC, 2016) • Floodplain Development Manual: The management of flood liable land (NSW Government, 2005)	Section 6.9
Standard	Land	No	General	• Soil and Landscape Issues in Environmental Impact Assessment (OEH, 2000) • Land Use Conflict Risk Assessment Guide (DPI, 2011) • Landslide Risk Management Guidelines (AGS, undated) • Site Investigations for Urban Salinity (OEH, 2002) • Guidelines for surveying Soil and Land Resources (NJ McKenzie, 2008) • The Australian Soil Classification (Isbell N. C., 2016) • Australian Soil and Land Survey Field Handbook' (NCST, 2009) • The land and soil capability assessment scheme (OEH, 2012) • Interpreting Soil Test Results – What do all the numbers mean?' (Hazelton, 2007) • Managing Urban Stormwater: Soils and Construction (Landcom, 2004)	Section 6.8

Level of assessment	Matter	Cumulative assessment (Y/N)	Engagement	Relevant government plans, policies and guidelines	Scoping report reference
Detailed	Social and economic	Yes	Specific	• Social Impact Assessment Guideline for State Significant Projects (DPIE, 2023) • Technical Supplement (DPIE, 2023) • Undertaking Engagement Guidelines for State Significant Projects' (DPIE, 2022)	Section 6.7
Standard	Air	No	General	• NSW Climate Change Policy Framework (OEH, 2016) • Approved Methods and Guidelines for the Modelling and Assessment of Air Pollutants in NSW (NSW EPA, 2022)	Section 6.12
Standard	Climate change	No	General	• AS/NZS 31000:2018 Risk Management – Principles and Guidelines (Standards Australia/Standards New Zealand Standard Committee, 2018) • AS 5334-2013 Climate change adaptation for settlements and infrastructure – A risk-based approach (Standards Australia, 2013) • Climate Change Impacts and Risk Management – A Guide for Business and Government (Department of the Environment and Heritage, 2006)	Section 6.12
Standard	Waste management	No	General	• Waste Classification Guidelines – Part 1: classifying waste (NSW EPA, 2014) and Addendum (NSW EPA, 2016) • Better Practice Guidelines for Waste Management and Recycling in Commercial and Industrial Facilities (NSW EPA, 2012) • NSW Waste Avoidance and Resource Recovery Strategy 2014-21 (NSW EPA, 2014)	Section 6.12
Standard	Cumulative impacts	Yes	Specific	• Cumulative Impact Assessment (CIA) Guidelines for State Significant Projects 2022 (DPE, 2022)	Section 6.11

APPENDIX C SOCIAL IMPACT ASSESSMENT WORKSHEET

Social Impact Assessment (SIA) Worksheet

Project name: Conargo Wind Farm

PROJECT ACTIVITIES	CATEGORIES OF SOCIAL IMPACTS	POTENTIAL IMPACTS ON PEOPLE		PREVIOUS INVESTIGATION OF IMPACT		CUMULATIVE IMPACTS		ELEMENTS OF IMPACTS - Based on preliminary investigation								PROJECT REFINEMENT	MITIGATION / ENHANCEMENT MEASURES
Which **project activity / activities** could produce social impacts ?	what **social impact categories** could be affected by the project activities	What impacts are likely, and what concerns/aspirations have people expressed about the impact? Summarise how each relevant stakeholder group might experience the impact. NB. Where there are multiple stakeholder groups affected differently by an impact, or more than one impact from the activity, please add an additional row.	Is the impact expected to be **positive or negative**	Has this impact previously been investigated (on this or other project/s)?	If "yes - this project," briefly describe the previous investigation. If "yes - other project," identify the other project and investigation	Will this impact combine with others from this project (think about when and where), and/or with impacts from other projects (cumulative)?	If yes, identify which other impacts and/or projects	Will the project activity (without mitigation or enhancement) cause a material social impact in terms of its: You can also consider the various magnitudes of these characteristics					What methods and data sources will be used to investigate this impact?			Has the project been refined in response to preliminary impact evaluation or stakeholder feedback?	What **mitigation / enhancement measures** are being considered?
								extent i.e. number of people potentially affected?	**duration** of expected impacts? (**i.e. construction vs operational phase**)	**intensity** of expected impacts i.e. scale or degree of change?	**sensitivity** or vulnerability of people potentially affected?	**level of concern/interest** of people potentially affected?	Secondary data	Primary Data - Consultation	Primary Data - Research		
Construction	Livelihoods	Temporary employment, potentially for residents of surrounding areas	Positive	Yes - other project	Other energy projects within the South West REZ	Yes	Cumulative employment from South West REZ	Yes	Yes	Yes	Yes	Unknown	Required	Broad consultation	Targeted research	No	Local industry participation plan, partnership with nearby training provider
Construction	Livelihoods	Worker expenditure in local businesses	Positive	Yes - other project	Other energy projects within the South West REZ	Yes	Expenditure on local resources, cumulative expenditure from South West REZ projects	Yes	Yes	Yes	Yes	Unknown	Required	Broad consultation	Targeted research	No	N/A
Construction	Livelihoods	Procurement of resources from local suppliers	Positive	Yes - other project	Other energy projects within the South West REZ	Yes	Worker expenditure in local businesses, cumulative expenditure from South West REZ projects	Unknown	Yes	Unknown	Unknown	Unknown	Required	Broad consultation	Targeted research	No	Local procurement strategy
Construction	Community	Increased sense of community identity through new people and development in area	Positive	No	Other energy projects within the South West REZ	Yes	Increase in sense of cummunity identity during operation	Unknown	Yes	Unknown	Unknown	Unknown	Required	Broad consultation	Targeted research	No	N/A
Construction	Surroundings	Impacts due to noise, vibration, dust and visual amenity	Negative	Yes - other project	Other energy projects within the South West REZ	Yes	Way of life impacts due to amenity effects, projects within the South West REZ	Yes	Yes	Yes	Yes	Unknown	Required	Broad consultation	Targeted research	No	Construction Management Plan Potential mitigations in technical studies on noise, vibration, dust and visual impacts
Construction	Way of life	Impacts due to noise, vibration, dust and visual amenity	Negative	Yes - other project	Other energy projects within the South West REZ	Yes	Surroundings impacts due to amenity effects, projects within the South West REZ	Yes	Yes	Unknown	Yes	Unknown	Required	Broad consultation	Targeted research	No	Construction Management Plan Potential mitigations in technical studies on noise, vibration, dust and visual impacts
Construction	Access	Impacted access through increased traffic due to light and heavy vehicle movements	Negative	Yes - other project	Other energy projects within the South West REZ	Yes	Projects within the South West REZ	Yes	Yes	Yes	Yes	Unknown	Required	Broad consultation	Targeted research	No	Construction Transport Management Plan
Construction	Access	Impacted access to local housing, services and infrastructure due to temporary workforce in area	Negative	Yes - other project	Other energy projects within the South West REZ	Yes	Projects within the South West REZ	Yes	Yes	Unknown	Unknown	Unknown	Required	Broad consultation	Targeted research	No	Workforce Accommodation Strategy Local industry participation plan, partnership with nearby training provider
Construction	Community	Reduced community cohesion or identity arising from antisocial behaviour by external workers; or fears and anxieties therein	Negative	Yes - other project	Other energy projects within the South West REZ	Yes	Projects within the South West REZ	Unknown	Unknown	Unknown	Unknown	Unknown	Required	Broad consultation	Targeted research	No	Community notification, engagement and feedback processes
Construction	Community	Impacted social cohesion due to community disagreement around proposed development	Negative	Yes - other project	Other energy projects within the South West REZ	Yes	Projects within the South West REZ	Unknown	Unknown	Unknown	Unknown	Unknown	Required	Broad consultation	Targeted research	No	Community notification, engagement and feedback processes
Operation	Livelihoods	Increased range of local job opportunities, direct (e.g. maintenance workers) and indirect (e.g. expenditure on goods and services by operational workers)	Positive	Yes - other project	Other energy projects within the South West REZ	Yes	Cumulative employment from South West REZ	Yes	Yes	Yes	Yes	Unknown	Required	Broad consultation	Targeted research	No	Local industry participation plan, partnership with nearby training provider
Operation	Livelihoods	Worker expenditure in local businesses	Positive	Yes - other project	Other energy projects within the South West REZ	Yes	Cumulative expenditure from South West REZ projects	Yes	Yes	Unknown	Yes	Unknown	Required	Broad consultation	Targeted research	No	N/A
Operation	Community	Increased sense of local identity through local contribution to energy transition	Positive	Yes - other project	Other energy projects within the South West REZ	Yes	Projects within the South West REZ	Unknown	Unknown	Unknown	Unknown	Unknown	Required	Broad consultation	Targeted research	No	N/A
Operation	Health and wellbeing	Contribution to more equitable intergenerational health and wellbeing through addressing energy transition and climate change	Positive	Yes - other project	Other energy projects within the South West REZ	Yes	Projects within the South West REZ	Unknown	Unknown	Yes	Unknown	Unknown	Required	Broad consultation	Targeted research	No	N/A
Operation	Surroundings	Local amenity imacts from noise, vibration, dust and visual disturbance	Negative	Yes - other project	Other energy projects within the South West REZ	Yes	Way of life impacts due to amenity effects, projects within the South West REZ	Yes	Yes	Yes	Yes	Unknown	Required	Broad consultation	Targeted research	No	Potential mitigations in technical studies on noise, vibration, dust and visual impacts
Operation	Way of life	Impacts to noise, vibration, dust and visual amenity	Negative	Yes - other project	Other energy projects within the South West REZ	Yes	Surroundings impacts due to amenity effects, projects within the South West REZ	Yes	Yes	Unknown	Yes	Unknown	Required	Broad consultation	Targeted research	No	Potential mitigations in technical studies on noise, vibration, dust and visual impacts
Operation	Community	Impacts to community identity from changed land use	Negative	Yes - other project	Other energy projects within the South West REZ	Yes	Community concern due to impacted environment and cohesion. Projects within the South West REZ	Unknown	Unknown	Unknown	Unknown	Unknown	Required	Broad consultation	Targeted research	No	Community notification, engagement and feedback processes
Operation	Community	Concerns and anxieties regarding environmental impacts	Negative	Yes - other project	Other energy projects within the South West REZ	Yes	Community concern/identity impacts due to land uses and cohesion. Projects within the South West REZ	Unknown	Unknown	Unknown	Unknown	Unknown	Required	Broad consultation	Targeted research	No	Community notification, engagement and feedback processes

PROJECT ACTIVITIES	CATEGORIES OF SOCIAL IMPACTS	POTENTIAL IMPACTS ON PEOPLE		PREVIOUS INVESTIGATION OF IMPACT		CUMULATIVE IMPACTS		ELEMENTS OF IMPACTS - Based on preliminary investigation								PROJECT REFINEMENT	MITIGATION / ENHANCEMENT MEASURES
Which **project activity / activities** could produce social impacts ?	what **social impact categories** could be affected by the project activities	What impacts are likely, and what concerns/aspirations have people expressed about the impact? Summarise how each relevant stakeholder group might experience the impact. **NB. Where there are multiple stakeholder groups affected differently by an impact, or more than one impact from the activity, please add an additional row.**	Is the impact expected to be **positive or negative**	Has this impact previously been investigated (on this or other project/s)?	If "yes - this project," briefly describe the previous investigation. If "yes - other project," identify the other project and investigation	Will this impact combine with others from this project (think about when and where), and/or with impacts from other projects (cumulative)?	If yes, identify which other impacts and/or projects	Will the project activity (without mitigation or enhancement) cause a material social impact in terms of its: You can also consider the various magnitudes of these characteristics					What methods and data sources will be used to investigate this impact?			Has the project been refined in response to preliminary impact evaluation or stakeholder feedback?	What **mitigation / enhancement measures** are being considered?
								extent i.e. number of people potentially affected?	**duration** of expected impacts? (i.e. construction vs operational phase)	**intensity** of expected impacts i.e. scale or degree of change?	**sensitivity** or **vulnerability** of people potentially affected?	**level of concern/interest** of people potentially affected?	Secondary data	Primary Data - Consultation	Primary Data - Research		
Operation	Community	Impacts to community cohesion from disagreements within community regarding ongoing operation of project	Negative	**Yes - other project**	Other energy projects within the South West REZ	Yes	Community concern/identity impacts due to impacts to land uses and environment. Projects within the South West REZ	Unknown	Unknown	Unknown	**Unknown**	Unknown	Required	Broad consultation	Targeted research	No	Community notification, engagement and feedback processes
INSERT NEW ROWS ABOVE THIS ROW																	

APPENDIX D CUMULATIVE IMPACTS WORKSHEET

Level of assessment	Description
Detailed	The Project may result in significant impacts on the matter, including cumulative impacts. Detailed assessment is characterised by: • Potential overlap in impacts between a future project and the proposed Project • Potential for significant cumulative impacts as a result of the overlap, requiring detailed technical studies to assess the impacts • Sufficient data is available on the future project to allow a detailed assessment of cumulative impacts with the proposed Project for the relevant matter • Uncertainties exist with respect to data, mitigation, assessment methods and criteria.
Standard	The Project is unlikely to result in significant impacts on the matter, including cumulative impacts. Standard assessments are characterised by: • Impacts are well understood • Impacts are relatively easy to predict using standard methods • Impacts are capable of being mitigated to comply with relevant standards or performance measures • The assessment is unlikely to involve any significant uncertainties or require any detailed cumulative impact assessment.
No assessment required	No potential overlap in impacts between a future project and the proposed Project that would warrant any consideration in the cumulative impact assessment

Future Projects	Approx. Distance to Project	Project Status	Potential overlap between impacts of Project and impact of other projects			
			Traffic	Visual and landscape	Noise and vibration	Social and economic
Currawarra Solar Farm (SSD-8437)	17km south of the Project	Project approved May 2018 Construction timing unknown				
	Key features: 195 MW solar farm, battery energy storage system (88MW/44MWh) and associated infrastructure		Access to Deniliquin and Conargo via local road networks, primarily Conargo Road, are likely to be impacted from each project site. Construction haulage may also impact on the Riverina Highway from both projects. Cumulative impacts are anticipated. Detailed cumulative impact assessment required.	Cumulative visual impacts possible at nearby sensitive receptors. Detailed cumulative impact assessment required.	Cumulative noise impacts possible at nearby sensitive receptors. Detailed cumulative impact assessment required.	Cumulative social impacts anticipated in the surrounding community and region as both sites are likely to be serviced by the township or Conargo or more likely Deniliquin. Detailed cumulative impact assessment required.
Yanco Delta Wind Farm (SSD-41743746)	27km north east of the Project	Project approved Dec 2023 Construction expected 2025-2026				
	Key features: 1.5 GW wind farm- with up to 225 wind turbines, battery energy storage (500MW/500MWh) and associated infrastructure		As a key north-south connector, Carrathool Road is likely to be used by both projects for transport of related materials and access. Construction haulage may also impact on the Riverina Highway from both projects. Cumulative impacts are anticipated. Detailed cumulative impact assessment required.	Cumulative visual impacts possible at nearby sensitive receptors. Detailed cumulative impact assessment required.	Cumulative noise impacts possible at nearby sensitive receptors. Detailed cumulative impact assessment required.	Cumulative social impacts anticipated in the surrounding community and region, however the project is more likely to be serviced by Coleambally than Deniliquin or Conargo. Standard cumulative impact assessment required.

Future Projects	Approx. Distance to Project	Project Status	Potential overlap between impacts of Project and impact of other projects			
			Traffic	Visual and landscape	Noise and vibration	Social and economic
Dinawan Wind Farm (SSD-50725708)	33km north east of the project	Planning Construction 2025- 2026 Operation 2027				
	Key features: 250 wind turbines, with a generation capacity of 1.5 GW, battery energy storage (300MW/1200MWh), electrical collection system, substation and control room, electricity transmission line infrastructure, and other ancillary facilities.		As a key north-south connector, Carrathool Road is likely to be used by both projects for transport of related materials and access. Construction haulage may also impact on the Riverina Highway from both projects. Cumulative impacts are anticipated. Detailed cumulative impact assessment required.	Low risk of cumulative visual impacts due to distance between proposed developments. No further assessment proposed.	Low risk of cumulative noise impacts due to distance between proposed developments. No further assessment proposed.	Cumulative social impacts anticipated in the surrounding community and region, however the project is more likely to be serviced by Coleambally than Deniliquin or Conargo. Standard cumulative impact assessment required.
Argoon Wind Farm (SSD-64935522)	33km north east of the Project	Planning Construction timing unknown				
	Key features: Up to 106 wind turbines with a total capacity of 901 MW and a maximum height of 249m (to blade tip), a 330 kV substation with a 330 kV overhead transmission line connecting the Project to grid via the proposed Dinawan substation, a battery energy storage system (460 MW/2.3 GWh), and permanent and temporary ancillary infrastructure.		As a key north-south connector, Carrathool Road is likely to be used by both projects for transport of related materials and access. Construction haulage may also impact on the Riverina Highway from both projects. Cumulative impacts are anticipated. Detailed cumulative impact assessment required.	Low risk of cumulative visual impacts due to distance between proposed developments. No further assessment proposed.	Low risk of cumulative noise impacts due to distance between proposed developments. No further assessment proposed.	Cumulative social impacts anticipated in the surrounding community and region, however the project is more likely to be serviced by Coleambally than Deniliquin or Conargo. Standard cumulative impact assessment required.

Future Projects	Approx. Distance to Project	Project Status	Potential overlap between impacts of Project and impact of other projects			
			Traffic	Visual and landscape	Noise and vibration	Social and economic
Tarleigh Park Solar Farm (SSD-8436)	36km south of the Project	Approved May 2018 Construction timing unknown				
	Key features: Around 290,000 solar panels with a total solar capacity up to around 90 MW, battery energy storage (88MW/44MWh). Access tracks, operations and maintenance building, an electrical substation, overhead and underground electrical cable reticulation, energy storage.		Access to Deniliquin via local road networks are likely to be impacted from each project site. Construction haulage may also impact on the Riverina Highway from both projects. Cumulative impacts are anticipated. Detailed cumulative impact assessment required.	Low risk of cumulative visual impacts due to distance between proposed developments. No further assessment proposed.	Low risk of cumulative noise impacts due to distance between proposed developments. No further assessment proposed.	Cumulative social impacts anticipated in the surrounding community and region as both sites are likely to be serviced by Deniliquin. Detailed cumulative impact assessment required.
Deniliquin East Battery Energy Storage System (SSD-61612229)	37km south west of the Project	Planning EIS under development				
	Key features: Development of a 100 MW battery energy storage system with associated infrastructure		Access to Deniliquin via local road networks are likely to be impacted from each project site. Construction haulage may also impact on the Riverina Highway from both projects. Cumulative impacts are anticipated. Detailed cumulative impact assessment required.	Low risk of cumulative visual impacts due to distance between proposed developments. No further assessment proposed.	Low risk of cumulative noise impacts due to distance between proposed developments. No further assessment proposed.	Cumulative social impacts anticipated in the surrounding community and region as both sites are likely to be serviced by Deniliquin. Detailed cumulative impact assessment required.

Future Projects	Approx. Distance to Project	Project Status	Potential overlap between impacts of Project and impact of other projects			
			Traffic	Visual and landscape	Noise and vibration	Social and economic
Dinawan Solar Farm (SSD-50725959)	42km north east of the Project	Planning EIS response to submissions				
	Key features: 1000 MW solar farm, associated infrastructure and 300 MW/1.2 GWh battery energy storage system		As a key north-south connector, Carrathool Road is likely to be used by both projects for transport of related materials and access. Construction haulage may also impact on the Riverina Highway from both projects. Cumulative impacts are anticipated. Detailed cumulative impact assessment required.	Low risk of cumulative visual impacts due to distance between proposed developments. No further assessment proposed.	Low risk of cumulative noise impacts due to distance between proposed developments. No further assessment proposed.	Cumulative social impacts anticipated in the surrounding community and region, however the project is more likely to be serviced by Coleambally than Deniliquin or Conargo. Standard cumulative impact assessment required.
Finley Solar Farm (SSD-8540)	45km south east of the Project	Operational since 2019				
	Key features: A 170 MW solar farm and associated infrastructure.		Due to the distance and operational status of this facility, cumulative impacts are not anticipated. No further assessment proposed.	Low risk of cumulative visual impacts due to distance between proposed developments. No further assessment proposed.	Low risk of cumulative noise impacts due to distance between proposed developments. No further assessment proposed.	Low risk of cumulative social impacts due to the distance and differing surrounding population centres. No further assessment proposed.

Future Projects	Approx. Distance to Project	Project Status	Potential overlap between impacts of Project and impact of other projects			
			Traffic	Visual and landscape	Noise and vibration	Social and economic
Bullawah Wind Farm (SSD-50505215)	45km north of the Project	Planning EIS under development				
	Key features: Construction and operation of a 1 GW wind farm comprising up to 170 wind turbines, a 500 MW (four-hour capacity) battery energy storage system, substations and switchyards to connect the wind farm to the Project EnergyConnect transmission line, and additional ancillary infrastructure.		Construction haulage from both projects may impact on the Riverina Highway however localised transport movements are unlikely to result in cumulative impacts. Standard cumulative impact assessment required.	Low risk of cumulative visual impacts due to distance between proposed developments. No further assessment proposed.	Low risk of cumulative noise impacts due to distance between proposed developments. No further assessment proposed.	Low risk of cumulative social impacts due to the distance and differing surrounding population centres. No further assessment proposed.
Pottinger Energy Park (Wind) (SSD-59235464)	47km north west of the Project	Planning Commence EIS				
	Key features: Construction and operation of a wind farm with up to 108 wind turbines with total generation capacity of 750 MW, a 500 MW / 2 GWh battery energy storage system, that will be shared with Pottinger Solar Farm.		Construction haulage from both projects may impact on the Riverina Highway however localised transport movements are unlikely to result in cumulative impacts. Standard cumulative impact assessment required.	Low risk of cumulative visual impacts due to distance between proposed developments. No further assessment proposed.	Low risk of cumulative noise impacts due to distance between proposed developments. No further assessment proposed.	Low risk of cumulative social impacts due to the distance and differing surrounding population centres. No further assessment proposed.

Future Projects	Approx. Distance to Project	Project Status	Potential overlap between impacts of Project and impact of other projects			
			Traffic	Visual and landscape	Noise and vibration	Social and economic
Southdown Solar Farm	49km south west of the Project	Planning EIS under development				
	Key features: Development of a 70 MW solar farm and associated infrastructure.		Construction haulage may impact on the Riverina Highway from both projects. Cumulative impacts are anticipated. Detailed cumulative impact assessment required.	Low risk of cumulative visual impacts due to distance between proposed developments. No further assessment proposed.	Low risk of cumulative noise impacts due to distance between proposed developments. No further assessment proposed.	Cumulative social impacts anticipated in the surrounding community and region as both sites are likely to be serviced by Deniliquin. Detailed cumulative impact assessment required.
Pottinger Energy Park (Solar) (SSD-59254709)	50km north west of the Project	Planning EIS under development				
	Key features: Development of a 300 MW solar farm and associated infrastructure, including battery energy storage system.		Construction haulage from both projects may impact on the Riverina Highway however localised transport movements are unlikely to result in cumulative impacts. Standard cumulative impact assessment required.	Low risk of cumulative visual impacts due to distance between proposed developments. No further assessment proposed.	Low risk of cumulative noise impacts due to distance between proposed developments. No further assessment proposed.	Low risk of cumulative social impacts due to the distance and differing surrounding population centres. No further assessment proposed.

APPENDIX E COMMUNITY NEWSLETTER

SQUADRON ENERGY

Community newsletter
March 2024

Conargo Wind Farm

Conargo Wind Farm

Squadron Energy is investigating a potential wind and battery project approximately 13km east of Conargo, NSW.

The location is well suited to wind generation due to a reliable wind resource, low density of residential dwellings, close proximity to an existing transmission line and the proposed VNI West route.

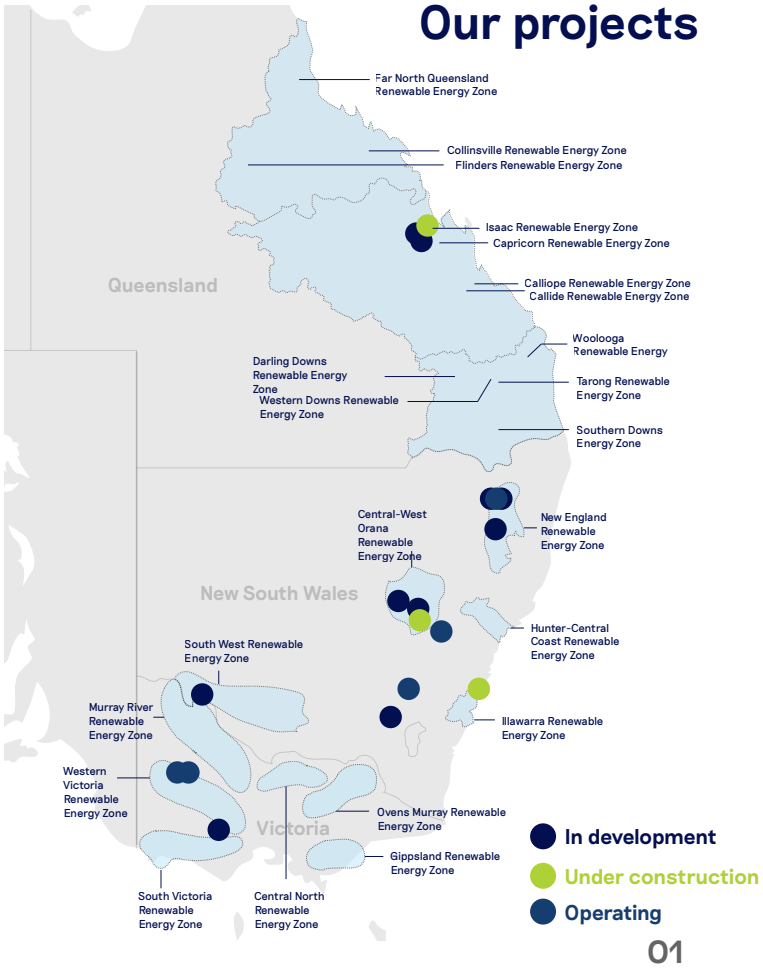
Squadron Energy

Squadron Energy is Australia's leading renewable energy company that develops, operates and owns renewable energy assets in Australia.

We are 100% Australian owned and have 1.1 gigawatts (GW) of renewable energy in operation and 900MW under construction.

With proven experience and expertise across the project lifecycle, we work with local communities and our customers to lead the transition to Australia's clean energy future.

Our projects



Phone: 0491 234 225 | Web: www.squadronenergy.com | Email: info@squadronenergy.com

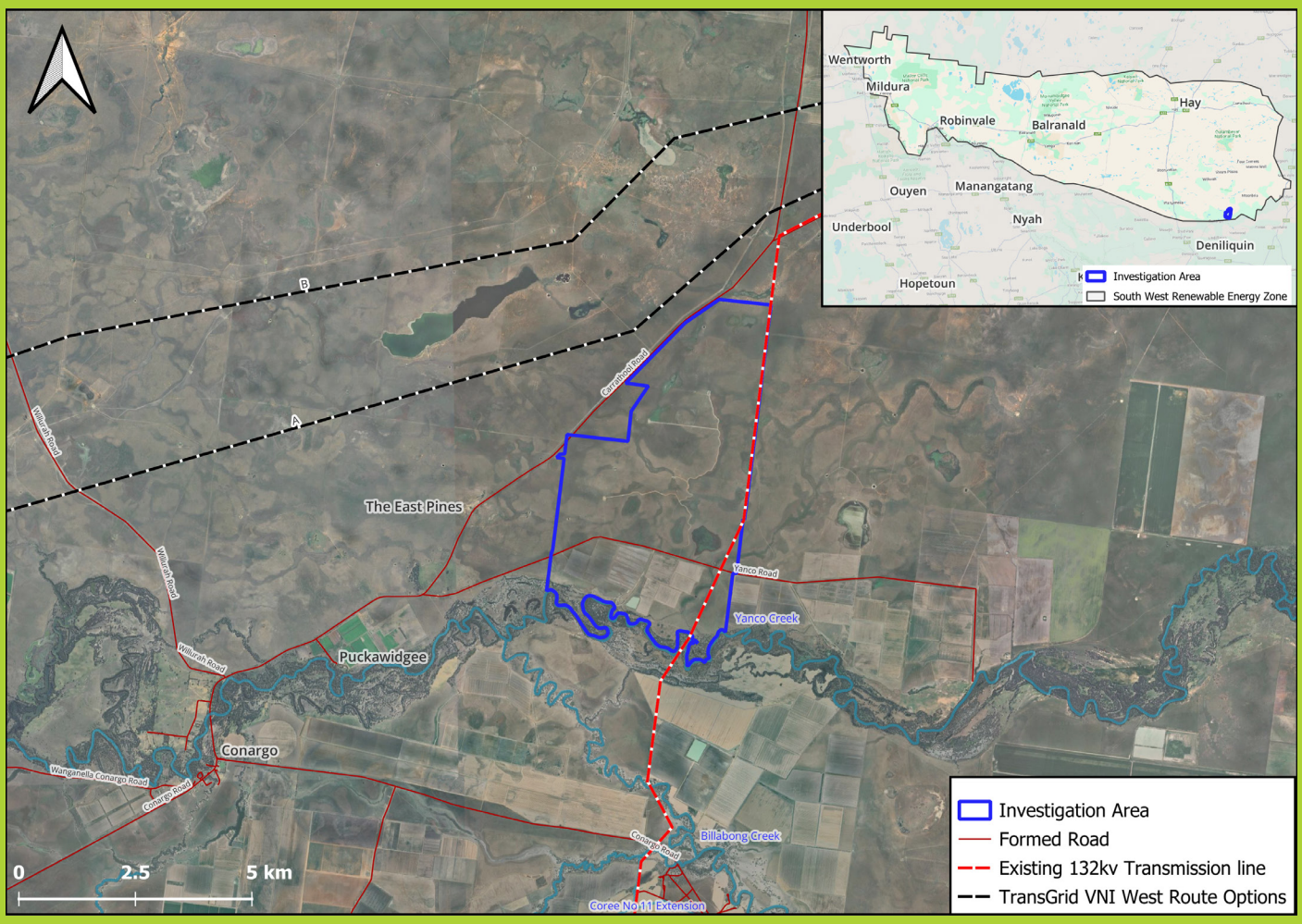
NSW South West Renewable Energy Zone

The proposed project site is within the NSW South West Renewable Energy Zone (REZ). A REZ involves the coordinated development of new grid infrastructure in energy rich areas to connect multiple renewable energy generators (such as solar and wind farms) in the same location.

The designation of a REZ is intended to result in the development of additional capacity for renewable electricity generation, producing low-cost power for NSW homeowners and business, driving down carbon emissions within the electricity generation sector, and importantly, driving job growth and employment opportunities through enabling significant investment into the regions.

For more information on the South West REZ, including an indicative location, visit:
https://www.energyco.nsw.gov.au/sw-rez

Investigation area



Phone: 0491 234 225 | Web: www.squadronenergy.com | Email: info@squadronenergy.com

Development process and next steps

The Conargo Wind Farm and battery project investigation area is on freehold privately owned land north-east of Conargo.

The selection of wind farm locations involves a combination of desktop searches, physical investigations and, fundamentally, landowner interest and community support.

Conargo Wind Farm is in the early stages of development and we are preparing a Scoping Report as the first stage of the NSW State Significant Development approval process. We are carrying out preliminary studies and community engagement to inform the report and initial project design.

Environmental assessment process

Phone: 0491 234 225 | Web: www.squadronenergy.com | Email: info@squadronenergy.com

Local and regional benefits

A wind farm development can provide substantial benefits to a local and regional community through direct employment, community investment and significant flow-on effects for the region.

Squadron Energy is committed to sharing the value and benefits of our projects by supporting communities over the long term. We do this through opportunities such as co-investment, planning agreements with local councils, community sponsorships and grant initiatives, and other regional benefit initiatives.

We have recently completed a trial to boost telecommunications network coverage at our Spicers Creek Wind Farm in the Central West. We plan to offer similar opportunities tailored to each local community where we work.

We recognise each community is different and through consultation and partnerships with councils, communities and local groups, we tailor benefits at each project to make positive lasting local contributions.

Visit **squadronenergy.com/community** or get in touch with the project team to find out more about the benefit sharing opportunities.

Community Drop-In Session

Early community consultation is key to developing a considered project. Please join us at our community drop in session or contact us on the details below to provide feedback.

When:
Thursday 21 March
1p.m – 6p.m.

Location:
Corner Conargo Rd and Carrathool Rd
Conargo NSW 2710

RSVP is not required
Please contact us if you would like more information.

Contact us

Aurore Pont - Project Developer
Phone: 0491 234 225
Email: info@squadronenergy.com.au
PO Box 1708, Newcastle NSW 2300

squadronenergy.com

APPENDIX F WIND TURBINE GENERATOR COORDINATES AND DWELLINGS

Wind turbine generator coordinates

Wind turbine generator ID	Easting	Northing	Wind turbine generator ID	Easting	Northing
1	343693	6100044	28	343375	6097513
2	344208	6100562	29	343867	6097426
3	344677	6101042	30	344383	6097396
4	345146	6101394	31	344842	6097483
5	345568	6101605	32	345295	6097477
6	346226	6101528	33	345735	6097547
7	344358	6099741	34	343215	6096645
8	344796	6100206	35	343623	6096581
9	345251	6100544	36	344072	6096435
10	345688	6100674	37	344571	6096374
11	346125	6100660	38	345035	6096388
12	343631	6099155	39	345457	6096600
13	344063	6099104	40	342028	6096840
14	344940	6099367	41	342668	6096261
15	345568	6099620	42	343779	6095741
16	346001	6099670	43	344302	6095672
17	342205	6098237	44	344723	6095244
18	342652	6098625	45	345558	6095358
19	343091	6098609	46	341868	6095741
20	343556	6098299	47	342204	6095658
21	344065	6098238	48	342549	6095437
22	344505	6098409	49	342998	6095433
23	344978	6098504	50	343423	6095184
24	345413	6098490	51	344025	6094957
25	345846	6098446	52	344405	6094500
26	342454	6097170	53	345287	6094674
27	342924	6097500			

Dwellings

The following tasks occurred to establish the dwellings list that has been adopted for this Scoping Report:

- Initial categorisation of potential dwellings by Squadron provided to Arcadis
- Establishment of an ArcGIS workspace for an 8km buffer around the Project Site
- Establishment of a grid system within the GIS workspace and utilisation of the most recent publicly available aerial photography for the 8km buffer area to verify the initial categorisation
- Ground truthing by Squadron
- Establishment of unique ID

The quantity and status of dwellings in proximity of the Project may change as further ground truthing occurs during the EIS phase of the Project, as community and stakeholder engagement continues, and access to private lands is progressively agreed.

Identifier	Receiver type	Lot	DP
YAN004	Associated	4	756318
YAN005	Associated	4	756318
YAN006	Non-Associated	22	756297
YAN014	Non-Associated	20	756297
YAN021	Non-Associated	105	756297
CAR001	Non-Associated	9	756322
CAR003	Non-Associated	11	756318
CAR004	Non-Associated	11	756318
CAR013	Non-Associated	328	1102519
CAR017	Non-Associated	9	756322
CAR018	Non-Associated	71	756308
CON001	Non-Associated	49	756322
CON002	Non-Associated	1	707463
CON008	Non-Associated	2	707463
CON009	Non-Associated	52	610323
CON010	Non-Associated	3	595795
CON011	Non-Associated	2	595795
PAR001	Non-Associated	124	756330
PAR002	Non-Associated	124	756330

APPENDIX G BIODIVERSITY SPECIES TABLES

Table I - 1 PCTs mapped within the Project Site

PCT	BC Act	EPBC Act	Area (ha) within the Project Site
PCT 2: River Red Gum-sedge dominated very tall open forest in frequently flooded forest wetland along major rivers and floodplains in south-western NSW	-	-	10.3
PCT 7: River Red Gum - Warrego Grass - herbaceous riparian tall open forest wetland mainly in the Riverina Bioregion	-	-	10.2
PCT 9: River Red Gum - wallaby grass tall woodland wetland on the outer River Red Gum zone mainly in the Riverina Bioregion	-	-	1.9
PCT 10: River Red Gum - Black Box woodland wetland of the semi-arid (warm) climatic zone (mainly Riverina Bioregion and Murray Darling Depression Bioregion)	-	-	63.3
PCT 13: Black Box - Lignum woodland wetland of the inner floodplains in the semi-arid (warm) climate zone (mainly Riverina Bioregion and Murray Darling Depression Bioregion)	-	-	4.7
PCT 26: Weeping Myall open woodland of the Riverina Bioregion and NSW South Western Slopes Bioregion	Myall Woodland in the Darling Riverine Plains, Brigalow Belt South, Cobar Peneplain, Murray-Darling Depression, Riverina and NSW South Western Slopes bioregions (Endangered)	Weeping Myall Woodlands (Endangered)	15.0
PCT 28: White Cypress Pine open woodland of sand plains, prior streams and dunes mainly of the semi-arid (warm) climate zone	Sandhill Pine Woodland in the Riverina, Murray-Darling Depression and NSW South Western Slopes bioregions (Endangered) *Acacia melvillei* Shrubland in the Riverina and Murray-Darling Depression bioregions (Endangered)	-	0.2

PCT	BC Act	EPBC Act	Area (ha) within the Project Site
PCT 44: Forb-rich Speargrass - Windmill Grass - White Top grassland of the Riverina Bioregion	-	Natural Grasslands of the Murray Valley Plains (Critically Endangered)	7.0
PCT 46: Curly Windmill Grass - speargrass - wallaby grass grassland on alluvial clay and loam on the Hay Plain, Riverina Bioregion	-	Natural Grasslands of the Murray Valley Plains (Critically Endangered)	1,846.1
PCT 70: White Cypress Pine woodland on sandy loams in central NSW wheatbelt	-	-	16.3
PCT 163: Dillon Bush (Nitre Bush) shrubland of the semi-arid and arid zones	Artesian Springs Ecological Community in the Great Artesian Basin (Critically Endangered)	-	0.07
Non-native vegetation	N/A	N/A	319.8
Native Vegetation Total			**1,975**
Vegetation Total			**2,294.8**

Table I - 2 TECs occurring within 10km radius of Project Site

Threatened Ecological Community	BC Act	EPBC Act	Potential for SAII	Likelihood of Occurrence	Area (ha) within the Project Site
Weeping Myall Woodlands	E	E	-	High	15.0
Myall Woodland in the Darling Riverine Plains, Brigalow Belt South, Cobar Peneplain, Murray-Darling Depression, Riverina and NSW South Western Slopes bioregions	E	-	-	High	
Artesian Springs Ecological Community in the Great Artesian Basin	CE	-	Yes	Moderate	0.07
Sandhill Pine Woodland in the Riverina, Murray-Darling Depression and NSW South Western Slopes bioregions	E	-	-	Moderate	0.2
Acacia melvillei Shrubland in the Riverina and Murray-Darling Depression bioregions	E	-	-	Moderate	
Buloke Woodlands of the Riverina and Murray-Darling Depression Bioregions	-	E	-	Low	-
Grey Box (Eucalyptus microcarpa) Grassy Woodlands and Derived Native Grasslands of South-eastern Australia	-	E	-	Low	-
Inland Grey Box Woodland in the Riverina, NSW South Western Slopes, Cobar Peneplain, Nandewar and Brigalow Belt South Bioregions	E	-	-	Low	-
Natural Grasslands of the Murray Valley Plains	-	CE	-	High	1853.1
Allocasuarina luehmannii Woodland in the Riverina and Murray-Darling Depression Bioregions	E	-	Yes	Low	-
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	E	-	Yes	Low	-
White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland	-	CE	-	Low	-

Table I - 3 List of threatened species likely to occur in the Project Site

Scientific name	Common name	BC Act	EPBC Act	Credit type and SAII	BioNet Records
Bird					
Anseranas semipalmata	Magpie Goose	V	-	Predicted	-
Anthochaera phrygia	Regent Honeyeater	CE	CE	Predicted	-
Aphelocephala leucopsis	Southern Whiteface	V	V	Known	-
Artamus cyanopterus cyanopterus	Dusky Woodswallow	V	-	Predicted	-
Botaurus poiciloptilus	Australasian Bittern	E	E	Known	-
Certhionyx variegatus	Pied Honeyeater	V	-	Predicted	-
Chthonicola sagittata	Speckled Warbler	V	-	Predicted	-
Circus assimilis	Spotted Harrier	V	-	-	1
Climacteris picumnus victoriae	Brown Treecreeper (south-eastern)	V	V	Likely	-
Daphoenositta chrysoptera	Varied Sittella	V	-	Predicted	-
Epthianura albifrons	White-fronted Chat	V	-	Predicted	-
Falco hypoleucos	Grey Falcon	V	V	Likely	-
Falco subniger	Black Falcon	V	-	Predicted	-
Gallinago hardwickii	Latham's Snipe, Japanese Snipe	-	V	Known	-
Grantiella picta	Painted Honeyeater	V	V	Known	-
Grus rubicunda	Brolga	V	-	Predicted	-
Haliaeetus leucogaster	White-bellied Sea-Eagle	V	-	Predicted	-
Hieraaetus morphnoides	Little Eagle	V	-	Predicted	-
Hirundapus caudacutus	White-throated Needletail	-	V	Predicted	-
Lathamus discolor	Swift Parrot	E	CE	Predicted	-
Leipoa ocellata	Malleefowl	E	V	Likely	-
Lophochroa leadbeateri leadbeateri	Major Mitchell's Cockatoo (eastern), Eastern Major Mitchell's Cockatoo, Pink Cockatoo (eastern)	-	E	Known	-
Lophoictinia isura	Square-tailed Kite	V	-	Predicted	-
Melanodryas cucullata cucullata	South-eastern Hooded Robin, Hooded Robin (south-eastern)	E	E	Known	-
Melithreptus gularis gularis	Black-chinned Honeyeater (eastern subspecies)	V	-	Predicted	-
Neophema chrysostoma	Blue-winged Parrot	V	V	Known	-

Scientific name	Common name	BC Act	EPBC Act	Credit type and SAII	BioNet Records
Neophema pulchella	Turquoise Parrot	V	-	Predicted	-
Ninox connivens	Barking Owl	V	-	Predicted	-
Pachycephala inornata	Gilbert's Whistler	V	-	Predicted	-
Pedionomus torquatus	Plains-wanderer	E	CE		3
Petroica boodang	Scarlet Robin	V	-	Predicted	-
Petroica phoenicea	Flame Robin	V	-	Predicted	-
Polytelis anthopeplus monarchoides	Regent Parrot (eastern subspecies)	E	V	Predicted	-
Polytelis swainsonii	Superb Parrot	V	V	Known	-
Pomatostomus temporalis temporalis	Grey-crowned Babbler (eastern subspecies)	V	-	Predicted	-
Pyrrholaemus brunneus	Redthroat	V	-	Predicted	-
Rostratula australis	Australian Painted Snipe	E	E	Known	-
Stagonopleura guttata	Diamond Firetail	V	V	Known	-
Stictonetta naevosa	Freckled Duck	V	-	Predicted	-
Tyto novaehollandiae	Masked Owl	V	-	Predicted	1
Mammal					
Chalinolobus picatus	Little Pied Bat	V	-	Predicted	-
Phascolarctos cinereus (combined populations of Qld, NSW and the ACT)	Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory)	E	E	Likely	-
Saccolaimus flaviventris	Yellow-bellied Sheathtail-bat	V	-	Predicted	-
Vespadelus baverstocki	Inland Forest Bat	V	-	Predicted	-
Reptile					
Hemiaspis damelii	Grey Snake	E	E	Likely	-
Fish					
Galaxias rostratus	Flathead Galaxias, Beaked Minnow, Flat-headed Galaxias, Flat-headed Jollytail, Flat-headed Minnow	CE	CE	Likely	-
Maccullochella peelii	Murray Cod	-	V	Known	-
Frog					
Litoria raniformis	Southern Bell Frog, Growling Grass Frog, Green and Golden Frog, Warty Swamp Frog, Golden Bell Frog	E	V	Likely	-

Scientific name	Common name	BC Act	EPBC Act	Credit type and SAII	BioNet Records
Plant					
Austrostipa wakoolica		E	E	Known	-
Lepidium monoplocoides	Winged Pepper-cress	E	E	Likely	-
Maireana cheelii	Chariot Wheels	V	V	Likely	-
Sclerolaena napiformis	Turnip Copperburr	E	E	Likely	-
Swainsona murrayana	Slender Darling-pea, Slender Swainson, Murray Swainson-pea	V	V	Known	-
Swainsona plagiotropis	Red Darling-pea, Red Swainson-pea	V	V	Likely	-

Table I - 4 List of migratory species with the potential to occur within 10km of the Project Site

Scientific name	Common Name	BC Act *	EPBC Act *
Actitis hypoleucos	Common Sandpiper	-	J, K, C, Bonn
Apus pacificus	Fork-tailed Swift	-	J, K, C
Calidris acuminata	Sharp-tailed Sandpiper	-	V, J, K, C, Bonn
Calidris ferruginea	Curlew Sandpiper	E	CE, J, K, C, Bonn
Calidris melanotos	Pectoral Sandpiper	-	J, K, Bonn
Gallinago hardwickii	Latham's Snipe, Japanese Snipe	-	V, J, K, Bonn
Motacilla flava	Yellow Wagtail	-	J, K, C
Myiagra cyanoleuca	Satin Flycatcher	-	Bonn

* V= vulnerable, E= Endangered, CE= Critically Endangered, J= JAMBA, K= ROKAMBA, C= CAMBA

Table I E List of species-credit species and their survey requirements

Common Name *(Scientific Name)*	BC Act	EPBC Act	Habitat Constraints	Geographic Limitations	SAII	Survey Period											
						Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
A spear-grass (*Austrostipa wakoolica*)	E	E	Grows on floodplains of the Murray River tributaries, in open woodland on grey, silty clay or sandy loam soils; habitats include the edges of a lignum swamp with box and mallee; creek banks in grey, silty clay; mallee and lignum sandy-loam flat; open Cypress Pine forest on low sandy range; and a low, rocky rise.	Confined to the floodplains of the Murray River tributaries of central-western and south-western NSW, with localities including Manna State Forest, Matong, Lake Tooim, Merran Creek, Tulla, Cunninyeuk and Mairjimmy State Forest.	-												
Austral Pillwort (*Pilularia novae-hollandiae*)	E	-	Austral Pillwort grows in shallow swamps and waterways, often among grasses and sedges. It is most often recorded in drying mud as this is when it is most conspicuous. Most of the records in the Albury-Urana area were from table drains on the sides of roads.	Austral Pillwort has been recorded in, the Riverina between Albury and Urana Oolambeyan National Park near Carrathool and at Lake Cowal near West Wyalong. The populations at Lake Cowal and Oolambeyan National Park are the only known extant populations in NSW, although the species is obscure and has possibly been overlooked elsewhere.	Yes												
Australian Bustard (*Ardeotis australis*)	E	-	Mainly inhabits tussock and hummock grasslands, though prefers tussock grasses to hummock grasses; also occurs in low shrublands and low open grassy woodlands; occasionally seen in pastoral and cropping country, golf courses and near dams	The Australian Bustard mainly occurs in inland Australia and is now scarce or absent from southern and south-eastern Australia. In NSW, they are mainly found in the north-west corner and less often recorded in the lower western and central west plains regions. Occasional vagrants are still seen as far east as the western slopes and Riverine plain. .	-												
Barking Owl (*Ninox connivens*)	V	-	Inhabits woodland and open forest, including fragmented remnants and partly cleared farmland. It is flexible in its habitat use, and hunting can extend in to closed forest and more open areas. Sometimes able to successfully breed along timbered watercourses in heavily cleared habitats (e.g. western NSW) due to the higher density of prey found on these fertile riparian soils. Requires very large permanent territories in most habitats due to sparse prey densities.	The Barking Owl is found throughout continental Australia except for the central arid regions. Although still common in parts of northern Australia, the species has declined greatly in southern Australia and now occurs in a wide but sparse distribution in NSW. Core populations exist on the western slopes and plains and in some northeast coastal and escarpment forests	-												
Bindweed (*Convolvulus tedmoorei*)	E	-	Grows in self-mulching grey clay soils on the floodplains of the Darling and Murrumbidgee Rivers. Disturbance regimes are not known, although the species may require periodic flooding of its habitat to maintain the wet conditions suitable for seed set and germination.	This species has been recorded from northern inland areas of South Australia, south-western Queensland and western NSW. There are few known records from NSW: two areas on the Murrumbidgee and Darling River floodplains in central-western NSW and two other records from east of Broken Hill on the road to Wilcannia, and from the Menindee Road, Scarsdale.	Yes												
Bush Stone-curlew (*Burhinus grallarius*)	E	-	Inhabits open forests and woodlands with a sparse grassy ground layer and fallen timber. Nest on the ground in a scrape or small bare patch.	The Bush Stone-curlew is found throughout Australia except for the central southern coast and inland, the far south-east corner, and Tasmania. Only in northern Australia is it still common however and in the south-east it is either rare or extinct throughout its former range.	-												
Chariot Wheels (*Maireana cheelii*)	V	V	Usually found on heavier, grey clay soils with Bladder Saltbush. Recorded on the Hay Plain. Soils include heavy brown to red-brown clay-loams, hard cracking red clay, other heavy texture-contrast soils. Tends to grow in shallow depressions, often on eroded or scalded surfaces, and does not extend to the higher soils in the habitat. It has been found on the edges of bare, windswept claypans, in shallow depressions of eroded surfaces where rainwater collects and on a “shelf” in the crabhole complex of heavy grey soils.	Restricted to the southern Riverina region of NSW, mainly in the area between Deniliquin and Hay. Also has a limited distribution in Victoria where very rare. NSW collections have mainly been from the Moulamein, Deniliquin and Hay districts, including Tchelery and Zara Stations. There is an outlying record from “Wangareena east of Wanaaring”.	-												

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						Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Claypan Daisy (*Brachyscome muelleroides*)	V	V	Grows in damp areas on the margins of claypans in moist grassland. Also recorded from the margins of lagoons in mud or water. Victorian collections have generally come from open positions on the Murray River floodplain, swampy River Red Gum Forest and damp depressions.	The Claypan Daisy occurs in the Wagga Wagga, Narranderra, Tocumwal and Walbundrie areas. Also occurs in north-central Victoria (only along the Murray from Tocumwal to the Ovens River).	Yes												
Koala (*Phascolarctos cinereus)*	E	E	Inhabit eucalypt woodlands and forests. Feed on the foliage of more than 70 eucalypt species and 30 non-eucalypt species, but in any one area will select preferred browse species.	In New South Wales, koala populations are found on the central and north coasts, southern highlands, southern and northern tablelands, Blue Mountains, southern coastal forests, with some smaller populations on the plains west of the Great Dividing Range.	-												
Lanky Buttons (*Leptorhynchos orientalis*)	E	-	Grows in woodland or grassland, sometimes on the margins of swamps. Communities include a Bimble Box plain in red-brown soil, dense *Acacia pendula* woodland with herbaceous understorey on red clay to clay-loam, open grassland areas on red soils, and red clay plains at the edge of a Canegrass swamp.	Recorded from several Hay Plain and southern Riverina localities, including Willanthry east of Hillston, Zara-Wanganella via Hay, McKinley Road SW of Hillston, and "Morundah" navy land west of Buckingbong SF. A large population has most recently been recorded from Cowl Cowl Station SSW of Hillston along a TSR.	-												
Little Eagle (*Hieraaetus morphnoides*)	V	-	Occupies open eucalypt forest, woodland or open woodland. Sheoak woodlands and riparian woodlands of interior NSW are also used.	The Little Eagle is found throughout the Australian mainland excepting the most densely forested parts of the Dividing Range escarpment. It occurs as a single population throughout NSW.	-												
Major Mitchell's Cockatoo (*Lophochroa leadbeateri*)	V	-	Inhabits a wide range of treed and treeless inland habitats, always within easy reach of water.	Found across the arid and semi-arid inland. In NSW it is found regularly as far east as about Bourke and Griffith, and sporadically further east than that.	-												
Masked Owl (*Tyto novaehollandiae*)	V	-	Lives in dry eucalypt forests and woodlands from sea level to 1100 m	Extends from the coast where it is most abundant to the western plains. Overall records for this species fall within approximately 90% of NSW, excluding the most arid north-western corner.	-												
Menindee Nightshade (*Solanum karsense*)	V	V	Grows in occasionally flooded depressions with heavy soil, including level river floodplains of grey clay with Black Box and Old Man Saltbush, and open treeless plains with solonized brown soils. Habitats are generally lake beds or floodplains of heavy grey clays with a highly self-mulching surface. Also found on sandy floodplains and ridges and in calcareous soils, red sands, red-brown earths and loamy soils.	Menindee Nightshade is endemic to NSW, restricted to the far south-western plains, extending up the Darling River to the Menindee and Wilcannia districts. Mainly restricted to the area between the Darling and Lachlan Rivers. Localities include Kars Station, Lake Tandou, Lake Cawndilla, Oxley area, between Broken Hill and Menindee, and the Darling River. It has been recorded from Kinchega National Park and Nearie Lake Nature Reserve.	-												
Mossgiel Daisy (*Brachyscome papillosa*)	V	V	Recorded primarily in clay soils on Bladder Saltbush and Leafless Bluebush plains, but also in grassland and in Inland Grey Box - Cypress Pine woodland.	The Mossgiel Daisy is endemic to NSW and chiefly occurs within the Riverina Bioregion, from Mossgiel in the north, Murrumbidgee Valley (Yanga) National Park in the south west to Urana in the south east. Sites are scattered across this Bioregion including the Jerilderie area, the Hay Plain (Maude and Oxley) and around Darlington Point.	-												
Pine Donkey Orchid (*Diuris tricolor*)	V	-	Disturbance regimes are not known, although the species is usually recorded from disturbed habitats. The Pine Donkey Orchid grows in sclerophyll forest among grass, often with native Cypress Pine. It is found in sandy soils, either on flats or small rises. Also recorded	Sporadically distributed on the western slopes of NSW, extending from south of Narrandera all the way to the north of NSW. Localities in the south include Red Hill north of Narrandera, Coolamon, and several sites west of Wagga Wagga.	-												

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						Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
			from a red earth soil in a Bimble Box community in western NSW.														
Plains-wanderer (*Pedionomus torquatus*)	E	CE	Plains-wanderers live in semi-arid, lowland native grasslands that typically occur on hard red-brown soils. These grasslands support a high diversity of plant species, including a number of state and nationally threatened species. Habitat structure appears to play a more important role than plant species composition. Preferred habitat of the Plains-wanderer typically comprises 50% bare ground, 10% fallen litter, and 40% herbs, forbs and grasses.	The vast majority of records of Plains-wanderers in NSW over the past 30 years come from an area of the western Riverina bounded by Hay and Narrandera on the Murrumbidgee River in the north, the Cobb Highway in the west, the Billabong Creek in the south, and Urana in the east. Even within its western Riverina stronghold, the Plains-wanderer has a very patchy distribution.	Yes													
Red Darling Pea (*Swainsona plagiotropis*)	V	V	Grows on flat grassland and in heavy red soil, often on roadsides and especially in table drains. Soils are derived from quaternary sediments and are usually red-brown clay-loams. The species is absent from black low-lying soils. Recorded from roadsides, rail reserves, stock routes and areas of lightly grazed unimproved pasture.	Occurs in the upper Murray River valley in the south-western plains of NSW and into Victoria. Most NSW records are from the Jerilderie area, with possible collections from the Louth-Bourke area and a disjunct record in the north-western plains from Buttabone Stud Park 35km NW of Warren.	-												
Regent Honeyeater (*Anthochaera phrygia*)	CE	CE	The Regent Honeyeater is a flagship threatened woodland bird whose conservation will benefit a large suite of other threatened and declining woodland fauna. The species inhabits dry open forest and woodland, particularly Box-Ironbark woodland, and riparian forests of River Sheoak. Regent Honeyeaters inhabit woodlands that support a significantly high abundance and species richness of bird species. These woodlands have significantly large numbers of mature trees, high canopy cover and abundance of mistletoes.	The Regent Honeyeater mainly inhabits temperate woodlands and open forests of the inland slopes of south-east Australia. Birds are also found in drier coastal woodlands and forests in some years. In NSW the distribution is very patchy and mainly confined to the two main breeding areas and surrounding fragmented woodlands. In some years flocks converge on flowering coastal woodlands and forests.	Yes													
Regent Parrot (eastern subspecies) (*Polytelis anthopeplus monarchoides*)	E	V	The species nests within River Red Gum forests along the Murray, Wakool and lower Murrumbidgee Rivers, and possibly the Darling River downstream of Pooncarie. Typical nest trees are large, mature healthy trees with many spouts (though dead trees are used) and are usually located close to a watercourse.	The eastern subspecies is restricted to areas around the Murray River in South Australia, Victoria and NSW. In NSW it occurs along the Murray River downstream of Tooleybuc (though there are few records between Mildura and the South Australian border), the Wakool River downstream of Kyalite, and the Murrumbidgee River immediately upstream from the junction with the Murray River and adjoining areas of mallee.	-													
Silky Swainson-pea (*Swainsona sericea*)	V	-	Found in Natural Temperate Grassland and Snow Gum Woodland on the Monaro. Found in Box-Gum Woodland in the Southern Tablelands and South West Slopes. Sometimes found in association with cypress-pines. Habitat on plains unknown.	Silky Swainson-pea has been recorded from the Northern Tablelands to the Southern Tablelands and further inland on the slopes and plains. There is one isolated record from the far north-west of NSW. Its stronghold is on the Monaro. Also found in South Australia, Victoria and Queensland.	-												
Slender Darling Pea (*Swainsona murrayana*)	V	V	The species has been collected from clay-based soils, ranging from grey, red and brown cracking clays to red-brown earths and loams. Grows in a variety of vegetation types including bladder saltbush, black box and grassland communities on level plains, floodplains and depressions. Plants have been found in remnant native grasslands or grassy woodlands that have been intermittently grazed or cultivated.	Found throughout NSW , it has been recorded in the Jerilderie and Deniliquin areas of the southern riverine plain, the Hay plain as far north as Willandra National Park, near Broken Hill and in various localities between Dubbo and Moree.	-													
Small Scurf-pea (*Cullen parvum*)	E	-	In known populations in Victoria and NSW, plants are found in grassland, River Red Gum Woodland or Box-Gum Woodland, sometimes on grazed land and usually	A small population was recently reported from near Jerilderie (although it has not been relocated). In recent years, two populations have been recorded in	-												

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			on table drains or adjacent to drainage lines or watercourses, in areas with rainfall of between 450 and 700 mm.	travelling stock reserves south-west of Wagga Wagga, and a population reputedly exists on a roadside near Galong. Another population has recently been discovered on private land near Young.													
Southern Bell Frog (*Litoria raniformis*)	E	V	Usually found in or around permanent or ephemeral Black Box/Lignum/Nitre Goosefoot swamps, Lignum/Typha swamps and River Red Gum swamps or billabongs along floodplains and river valleys. They are also found in irrigated rice crops, particularly where there is no available natural habitat.	Currently, the species is known to exist only in isolated populations in the Coleambally Irrigation Area, the Lowbidgee floodplain and around Lake Victoria. A few yet unconfirmed records have also been made in the Murray Irrigation Area in recent years.	-												
Southern Myotis (*Myotis macropus*)	V	-	Generally roost in groups of 10 - 15 close to water in caves, mine shafts, hollow-bearing trees, storm water channels, buildings, under bridges and in dense foliage.	The Southern Myotis is found in the coastal band from the north-west of Australia, across the top-end and south to western Victoria. It is rarely found more than 100km inland, except along major rivers.	-												
Square-tailed Kite (*Lophoictinia isura*)	V	-	Found in a variety of timbered habitats including dry woodlands and open forests. Shows a particular preference for timbered watercourses. In arid north-western NSW, has been observed in stony country with a ground cover of chenopods and grasses, open acacia scrub and patches of low open eucalypt woodland.	In NSW, scattered records of the species throughout the state indicate that the species is a regular resident in the north, north-east and along the major west-flowing river systems. It is a summer breeding migrant to the south-east, including the NSW south coast, arriving in September and leaving by March.	-												
Superb Parrot (*Polytelis swainsonii*)	V	V	Inhabit Box-Gum, Box-Cypress-pine and Boree Woodlands and River Red Gum Forest. In the Riverina the birds nest in the hollows of large trees (dead or alive) mainly in tall riparian River Red Gum Forest or Woodland. On the South West Slopes nest trees can be in open Box-Gum Woodland or isolated paddock trees.	The Superb Parrot is found throughout eastern inland NSW. The other main breeding sites are in the Riverina along the corridors of the Murray, Edward and Murrumbidgee Rivers where birds are present all year round.	-												
Swift Parrot (*Lathamus discolor*)	E	CE	Migrates to the Australian south-east mainland between February and October. On the mainland they occur in areas where eucalypts are flowering profusely or where there are abundant lerp from sap	Breeds in Tasmania during spring and summer, migrating in the autumn and winter months to south-eastern Australia from Victoria and the eastern parts of South Australia to south-east Queensland. In NSW mostly occurs on the coast and south west slopes.	Yes												
Turnip Copperburr (*Sclerolaena napiformis*)	E	E	Confined to remnant grassland habitats on clay-loam soils. Grows on level plains in tussock grassland of *Austrostipa nodosa* and *Chloris truncate* in grey cracking clay to red-brown loamy clay. Sites are roadside travelling stock routes and reserves subject to sheep grazing.	Known from only a few small populations in remnant grassland in the southern Riverina of NSW and north-central Victoria. NSW populations are confined to the area between Jerilderie and Moama on travelling stock routes and road reserves.	-												
White-bellied Sea-Eagle (*Haliaeetus leucogaster*)	V	-	Habitats are characterised by the presence of large areas of open water including larger rivers, swamps, lakes, and the sea. Occurs at sites near the sea or sea-shore, such as around bays and inlets, beaches, reefs, lagoons, estuaries and mangroves; and at, or in the vicinity of freshwater swamps, lakes, reservoirs, billabongs and saltmarsh. Terrestrial habitats include coastal dunes, tidal flats, grassland, heathland, woodland, and forest (including rainforest).	The White-bellied Sea-Eagle is distributed around the Australian coastline, including Tasmania, and well inland along rivers and wetlands of the Murray Darling Basin. In New South Wales it is widespread along the east coast, and along all major inland rivers and waterways.	-												
Winged Peppercress (*Lepidium monoplocoides*)	E	E	Occurs on seasonally moist to waterlogged sites, on heavy fertile soils, with a mean annual rainfall of around 300-500 mm. Predominant vegetation is usually an open woodland dominated by *Allocasuarina luehmannii* and/or eucalypts, particularly *Eucalyptus largiflorens* or *Eucalyptus populnea*. The field layer of the surrounding woodland is dominated by tussock	Widespread in the semi-arid western plains regions of NSW. Collected from widely scattered localities, with large numbers of historical records but few recent collections. There is a single collection from Broken Hill and only two collections since 1915, the most recent being 1950. Also previously recorded from Bourke, Cobar, Urana, Lake Cargelligo, Balranald, Wanganella	-												

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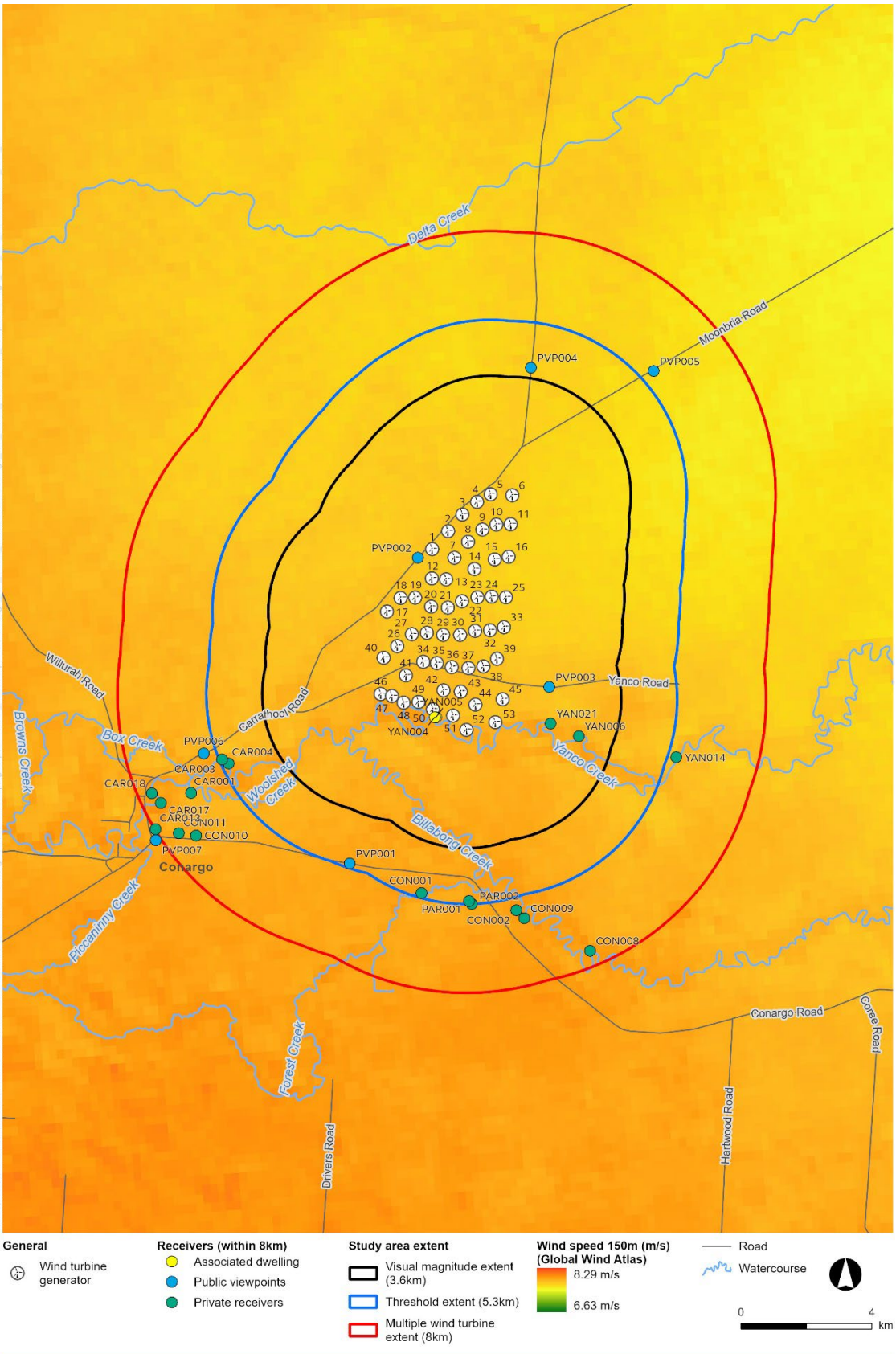
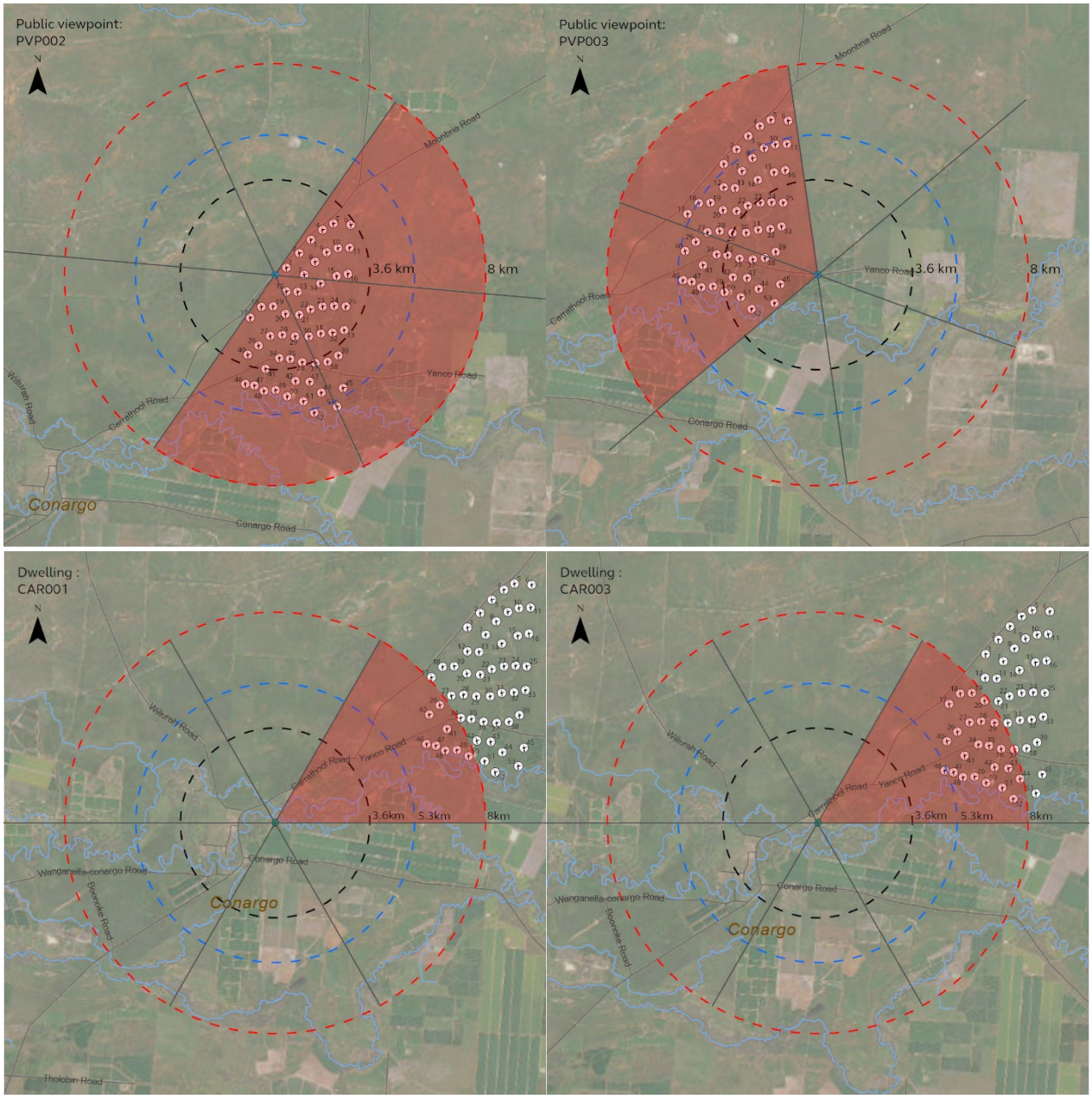
			grasses. Recorded in a wetland-grassland community, on waterlogged grey-brown clay.	and Deniliquin. Recorded more recently from the Hay Plain, south-eastern Riverina, and from near Pooncarie.													
Yellow Gum (*Eucalyptus leucoxylon subsp. pruinose*)	V	-	Occurs at the bases of sandy rises and on loamy clay flats on the floodplains of the Murray River and its tributaries in the Riverina Bioregion.	Restricted to several small areas between Barham and Euston. This species is not known from any protected area within NSW, though some remnants occur within State Forests along the Murray River, particularly within Campbells Island and Euston SFs.	-												

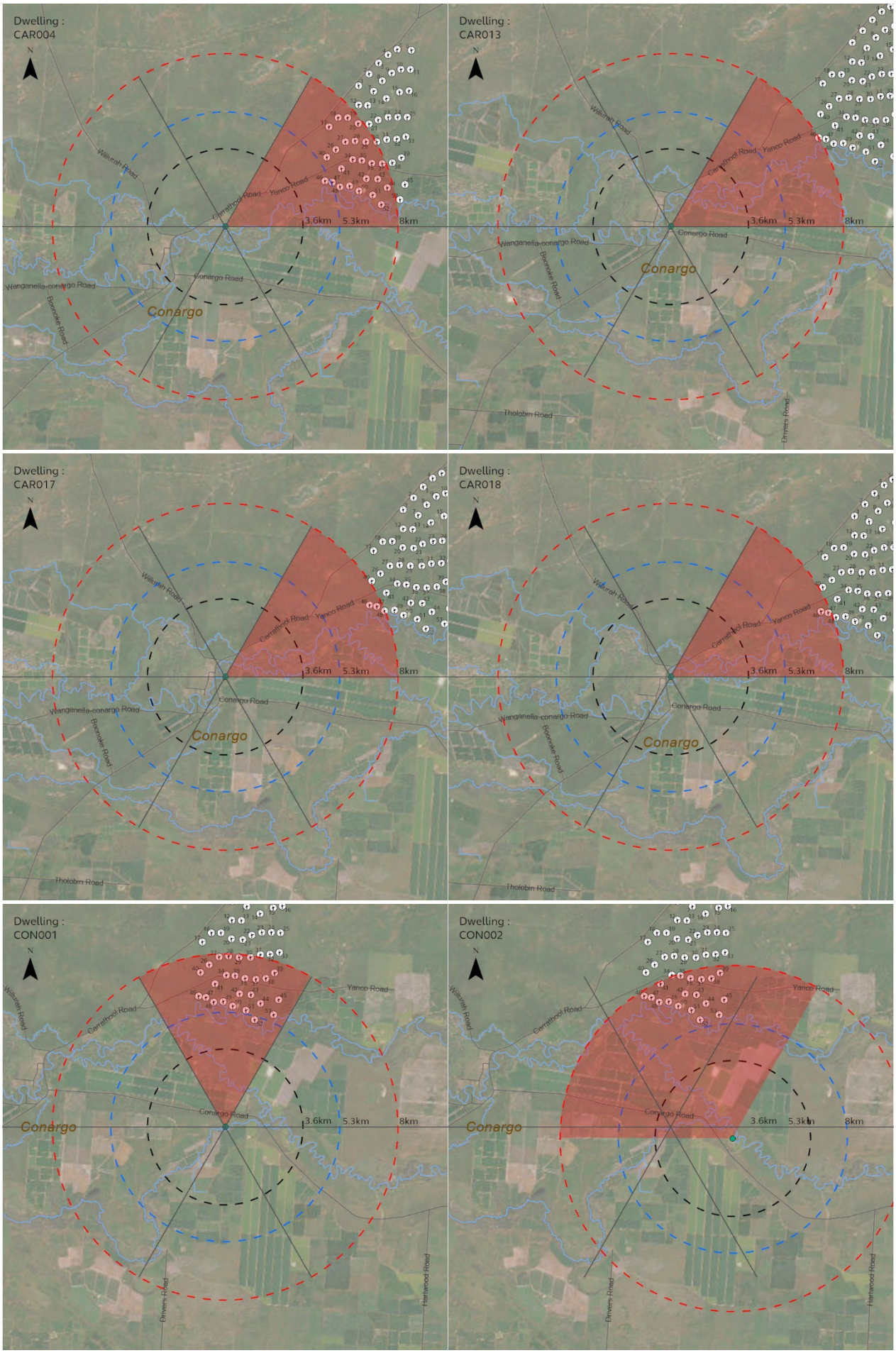
APPENDIX H PRELIMINARY VISUAL ENVIRONMENTAL ASSESSMENT SUPPORTING INFORMATION

Wind resource



Multiple Wind Turbine Tool

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Yanco Road
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8km
Wanganella-conargo Road
Conargo Road
Boomoke Road
Conargo
Dwelling :
CAR013
N
Willurah Road
Carrathool Road
Yanco Road
3.6km
5.3km
8km
Conargo Road
Wanganella-conargo Road
Boomoke Road
Conargo
Tholobin Road
Drivers Road
Dwelling :
CAR017
N
Willurah Road
Carrathool Road
Yanco Road
3.6km
5.3km
8km
Conargo Road
Wanganella-conargo Road
Boomoke Road
Conargo
Tholobin Road
Dwelling :
CAR018
N
Willurah Road
Carrathool Road
Yanco Road
3.6km
5.3km
8km
Conargo Road
Wanganella-conargo Road
Boomoke Road
Conargo
Tholobin Road
Dwelling :
CON001
N
Willurah Road
Carrathool Road
Yanco Road
Conargo Road
3.6km
5.3km
8km
Conargo
Drivers Road
Hartwood Road
Dwelling :
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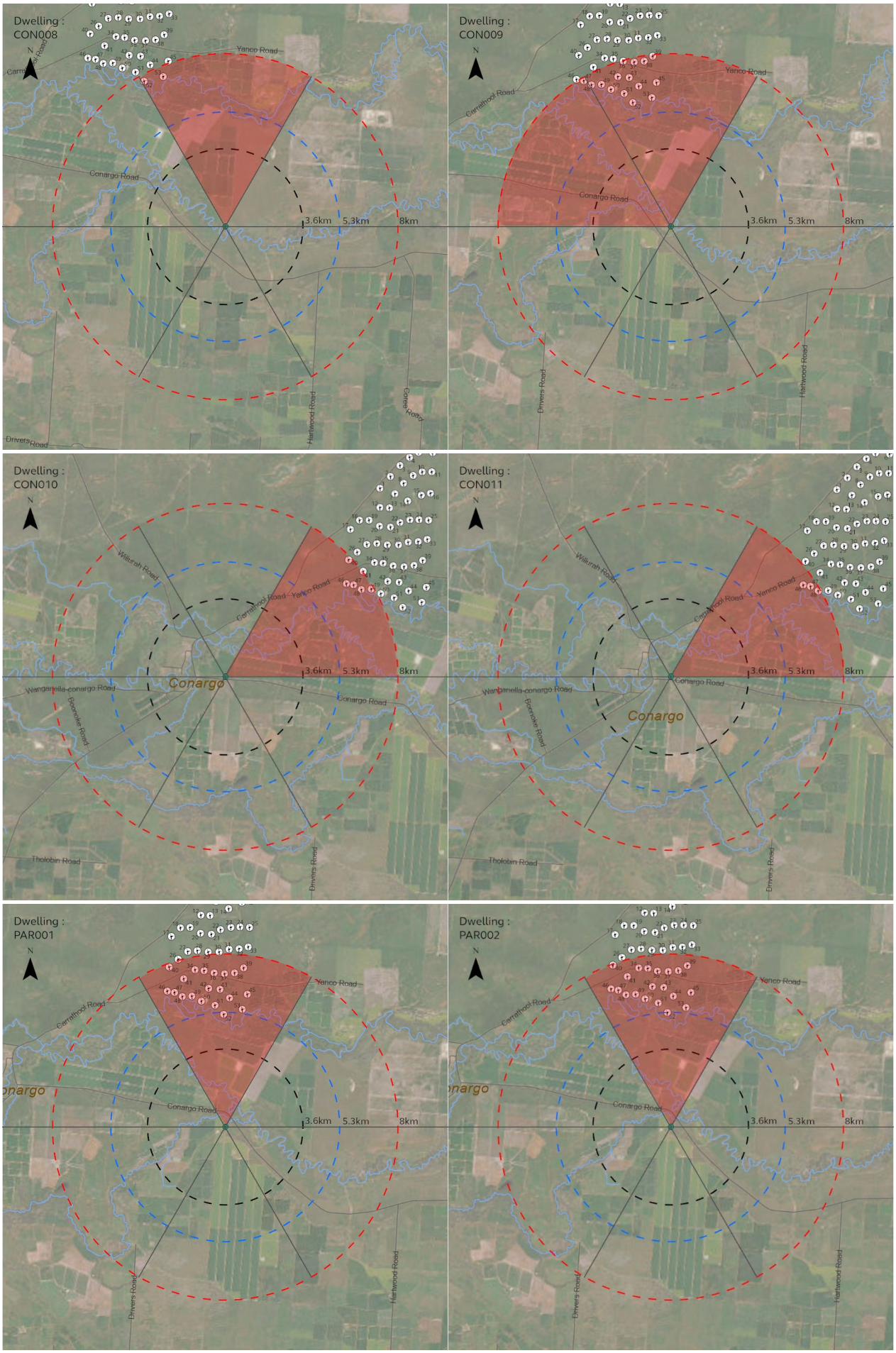
Drivers Road
Hartwood Road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Hartwood Road
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Conargo Road
3.6km
5.3km
8km
Drivers Road
Hartwood Road
Dwelling :
CON010
Willurah Road
Carrathool Road
Yanco Road
3.6km
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Conargo
Wanganella-conargo Road
Boonoke Road
Conargo Road
Tholobin Road
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Yanco Road
Carrathool Road
Conargo Road
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Hartwood Road
Dwelling :
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Carrathool Road
Conargo Road
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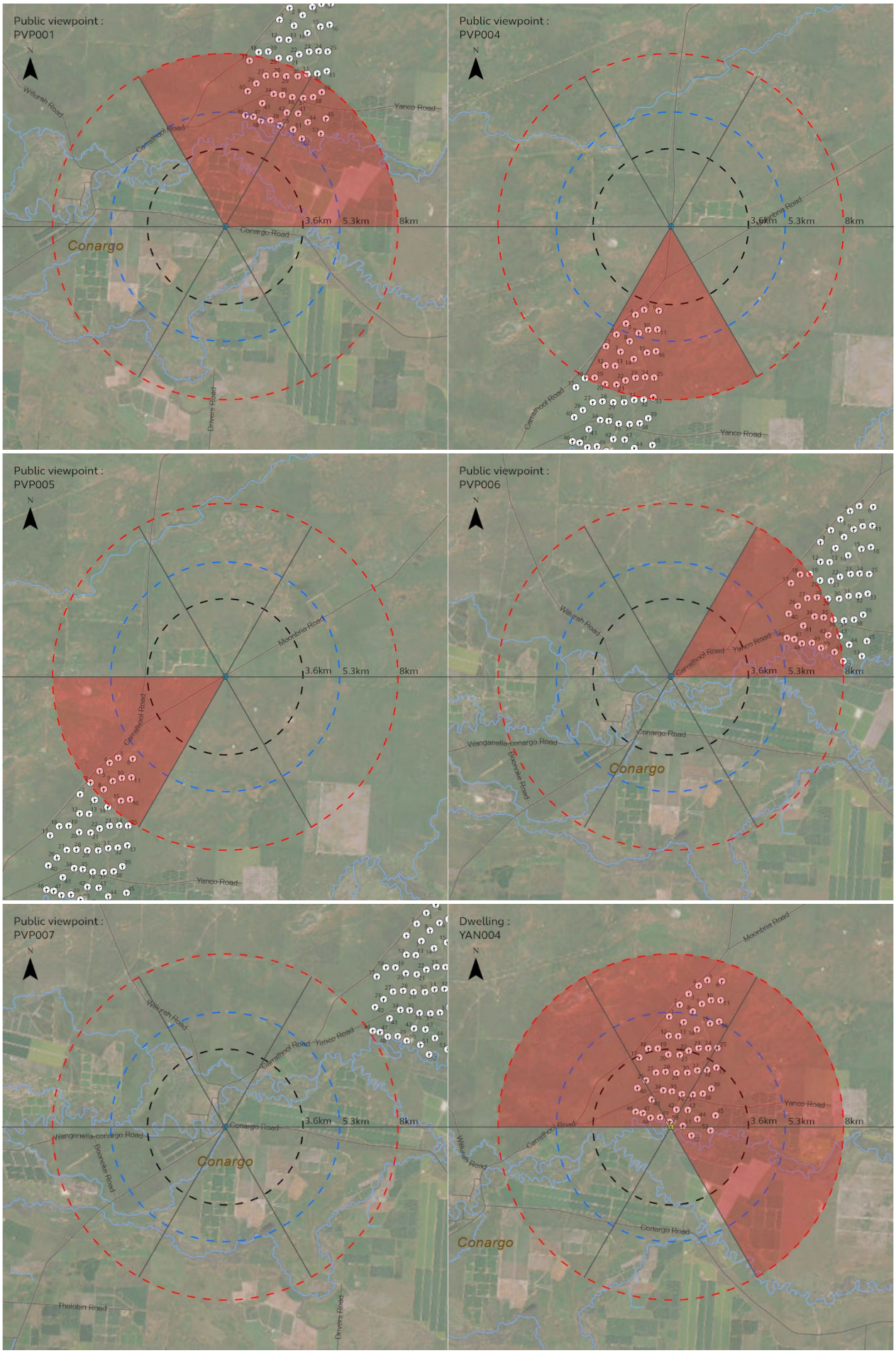
Drivers Road
Hartwood Road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Willurah Road
Yanco Road
Carrathool Road
3.6km
5.3km
8km
Conargo Road
Conargo
Drivers Road
Public viewpoint :
PVP004
Moombria Road
Carrathool Road
Yanco Road
Public viewpoint :
PVP005
Moombria Road
Carrathool Road
Yanco Road
Public viewpoint :
PVP006
Willurah Road
Carrathool Road
Yanco Road
Wanganella-conargo Road
Boondoke Road
Conargo Road
Conargo
Public viewpoint :
PVP007
Willurah Road
Carrathool Road
Yanco Road
Wanganella-conargo Road
Boondoke Road
Conargo Road
Conargo
Tholobin Road
Drivers Road
Dwelling :
YAN004
Moombria Road
Yanco Road
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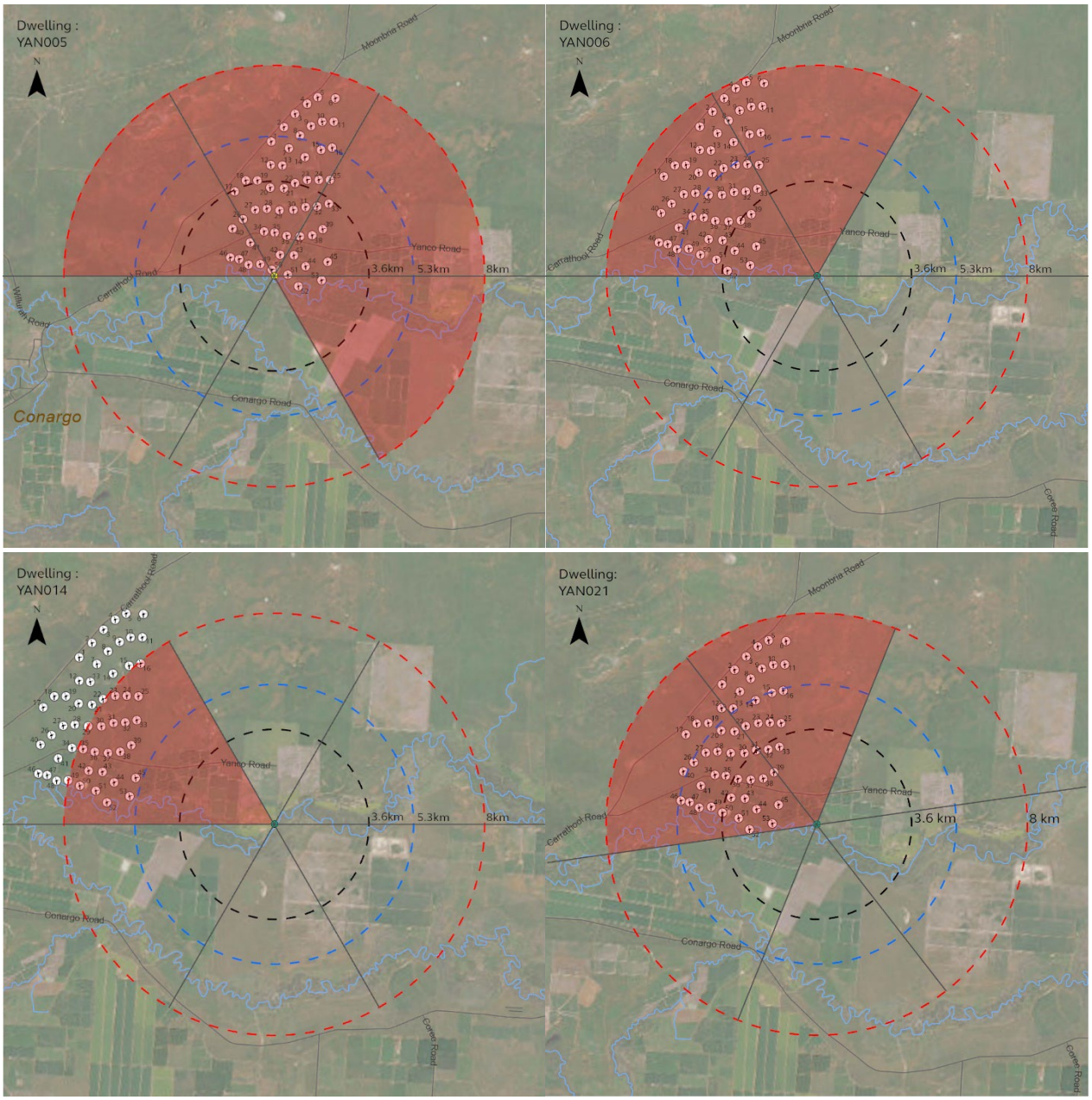
Conargo


Dwelling :
YAN005
N
Moombria Road
Yanco Road
Carrathool Road
Conargo Road
3.6km
5.3km
8km
Conargo
Dwelling :
YAN006
N
Moombria Road
Yanco Road
Carrathool Road
Conargo Road
3.6km
5.3km
8km
Dwelling :
YAN014
N
Carrathool Road
Yanco Road
Conargo Road
3.6km
5.3km
8km
Dwelling:
YAN021
N
Moombria Road
Yanco Road
Carrathool Road
Conargo Road
3.6 km
8 km