SCOPING REPORT

Burrawong Wind Farm

November 2021

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Executive summary

Burrawong Wind Farm (the Proposal) would involve the construction and operation of up to 107 Wind Turbine Generators (WTGs) and associated ancillary infrastructure, with a generating capacity of around 750 megawatts (MW). The Proposal may also include a Battery Energy Storage System (BESS).

The Proposal is located in the south-west of New South Wales (NSW), approximately 15 kilometres south of Balranald. The site is predominantly cleared of native vegetation and is currently used for cropping and grazing. Developing the high-quality wind resource identified at the site would generate significant investment in the broader Balranald and Murray River area and would be compatible with existing agricultural activities.

The Proposal is being developed by Windlab Developments Pty Ltd (the Proponent), an Australian company that applies Australian science to find, construct and operate high performing wind farms in Australia and around the world.

Planning context

The Proposal is classed as State Significant Development (SSD) under the *State Environmental Planning Policy (State and Regional Development) 2011* and will be assessed under Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A).

Given the nature and scale of the Proposal, a referral to the Commonwealth Department of Agriculture, Water and Environment (DAWE) under the Environmental Protection and Biodiversity Conservation Act 1999 (EPBC) is considered likely.

This Scoping Report describes the proposed Burrawong Wind Farm and supports a request for Secretary's Environmental Assessment Requirements (SEARs) for the Proposal. An Environmental Impact Statement (EIS) will be prepared in accordance with the SEARs, and will be submitted to the Department of Planning, Industry and Environment (DPIE) for assessment.

Project justification

The electricity sector in NSW is undergoing a significant transformation. This is driven by the ageing and pending retirement of existing coal-fired generation together with increasing demand from global markets for action on climate change.

With its high-quality wind resource and advantageous site characteristics, the Proposal has the potential to deliver cheap, clean and reliable energy for NSW consumers and contribute to the achievement of local, state and federal government objectives in relation to renewable energy and climate change policy.

It is anticipated that the Proposal could be one of the lowest cost options to replace coal generation as the site is flat and predominantly cleared and has good access to established infrastructure and workforce in nearby townships. This is expected to reduce the complexity of construction and the anticipated capital cost of the Proposal. In addition, the Proposal has the potential to be construction ready by 2023.

Other benefits of the site include positive engagement with the local community, minimal number of close residential receivers, compatibility with existing land use, and good access to both existing and proposed electricity transmission infrastructure. The Proposal is located in the South-West

Renewable Energy Zone; an area that the NSW Government has identified as a target area for renewable energy development.

The Proposal would diversify the local economy and generate significant investment in the region.

Preliminary consultation

To date, the response from the community in relation to the Proposal has been positive. Targeted consultation to identify community values included face-to-face meetings with nearby neighbours, drop-in sessions at Balranald and Kyalite, and a 'values survey' which was available online and as a hardcopy. This has provided valuable early input into identifying opportunities and constraints for the Proposal. Ongoing consultation with the community and other stakeholders will be used to understand concerns and ensure that the Proposal responds to these concerns.

Preliminary environmental assessment

Preliminary assessment and consultation have identified specific key issues that will be subject to further detailed investigation in the EIS. This further investigation will shape the development of Burrawong Wind Farm and ensure that the detailed Proposal presented in the EIS is responsive to its environmental and social context. These are:

Key issues with potential for high impacts (high constraint):

- Visual amenity
- Noise amenity
- Biodiversity
- Aboriginal heritage

Key issues with potential for moderate impacts (moderate constraint):

- Traffic impacts
- Aviation
- Telecommunications
- Social impacts
- Cumulative impacts

Other issues are expected to be able to be addressed through desktop investigation to inform appropriate mitigation and management measures.

The project-specific SEARs for the Proposal are now sought on the basis of this preliminary assessment.

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Acronyms and abbreviations

AHIMS	Aboriginal Heritage Information Management System
ASRIS	Australian Resource Information System
OEH	(Former) Office of Environment and Heritage (NSW) (now EES)
ACHA	Aboriginal Cultural Heritage Assessment
BOM	Australian Bureau of Meteorology
AEMO	Australian Energy Market Operator
BAM	Biodiversity Assessment Method
BDAR	Biodiversity Assessment Report
BC Act	*Biodiversity Conservation Act 2016* (NSW)
BCS	Biodiversity Conservation and Science
CEMP	Construction Environmental Management Plan
CIA	Cumulative Impact Assessment
CO2	Carbon dioxide
CO2eq	CO2 equivalent
Cwth	Commonwealth
DPIE	Department of Planning, Industry and Environment (NSW)
EP&A Act	*Environmental Planning & Assessment Act 1979*
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999* (Cwth)
EIS	Environmental impact statement
EP&A Act	*Environmental Planning and Assessment Act 1979* (NSW)
GHGs	greenhouse gases
GW	gigawatt
ha	hectares
Heritage Act	*Heritage Act 1977* (NSW)
IPCN	Independent Planning Commission NSW
ISEPP	State Environmental Planning Policy (Infrastructure) 2007 (NSW)
IBRA	Interim Biogeographic Regionalisation for Australia
km	kilometres
LRET	Large-scale Renewable Energy Target
LALC	Local Aboriginal Land Council
LUCRA	Land Use Conflict Risk Assessment
m	metres

MW	megawatt
MWh	megawatt hour
NEM	National Energy Market
NPW Act	*National Parks and Wildlife Act 1974* (NSW)
OSOM	Oversize, Over Mass
PCT	Plant Community Types
REAP	NSW Renewable Energy Action Plan
SIA	Social Impact Assessment
SRD SEPP	*State Environmental Planning Policy (State and Regional Development) 2011*
SSD	State Significant Development
TEC	Threatened Ecological Communities
WMP	Waste Management Plan

Terms used in this document

The Proposal	The proposed works, as a whole (being the Burrawong Wind Farm including all construction and operational components)
Subject Land	All affected lots where the Proposal may be located
Development Site	The area under investigation for potential impact and disturbance, including any access, transmission or other infrastructure upgrades outside of the Subject Land
Development Corridor	A broad area assessed for direct impacts, to allow for flexibility in the final design stage of the Proposal
Study Area	Area within 10km of the Subject Land
The Proponent	Windlab Developments (ABN 98134738462) Level 4, 60 Marcus Clarke Street, Canberra ACT 2601

1. Introduction

1.1 Overview

Windlab Developments Pty Ltd (the Proponent) proposes to construct and operate the Burrawong Wind Farm (the Proposal) in the south-west of New South Wales (NSW). The address of the proposal is Balranald Road, Kyalite NSW 2715. The location is approximately 15 kilometres (km) south of Balranald, 140km west of Hay and 20km northeast of the NSW and Victorian border and within the southern section of the Murray-Darling Basin (Figure 2-1).

The Proposal would involve the construction, operation and eventual decommissioning of up to 107 Wind Turbine Generators (WTGs) and associated ancillary infrastructure, with a generating capacity of up to approximately 750 megawatts (MW). The Proposal may also include a Battery Energy Storage System (BESS) of up to approximately 250MW / 500MW hours (MWh).

The Proposal is predominantly located on freehold land, with a small number of Crown Land easements traversing the Subject Land as roads and waterways. The Subject Land is predominantly cleared of native vegetation and currently used for cropping and grazing. Small areas of native shrub and groundcover are present. Vegetated corridors and small isolated patches of woodland exist and are typically associated with roadsides and fence lines.

The Subject Land is 15,647ha and consists of lots listed in Table 2-2. The site is relatively homogenous and at this stage it is assumed that all areas within the Subject Land would be suitable for wind turbines and ancillary infrastructure.

The Proposal will connect into the national electricity network via either the recently approved Energy Connect 330 kilovolt (kV) transmission line, or the existing TransGrid 220kV transmission line, both of which traverse the site. The Proposal is located in the proposed South-West Renewable Energy Zone (SW REZ), which the NSW Government has identified as a target area for renewable energy development in its Transmission Infrastructure Strategy and Electricity Infrastructure Roadmap.

1.2 Document Purpose

Windlab is seeking State Significant Development (SSD) consent under Division 4.7 of Part 4 of the *Environmental Planning & Assessment Act 1979* (EP&A Act). This Scoping Report has been prepared to support a request to the Department of Planning, Industry and Environment (DPIE) for the Secretary's Environmental Assessment Requirements (SEARs). The SEARs would guide the preparation of an Environmental Impact Statement (EIS) for the Proposal under Part 4 of the Environmental Planning and Assessment Act 1979 (EP&A Act).

This report provides an outline of the Proposal including the site and its surroundings and the statutory framework relevant to obtaining project approval. Further, it identifies potential benefits and challenges that may be associated with the wind farm proposal and proposes investigation strategies required to properly assess the Proposal's impacts within a detailed EIS.

The information presented in this report is based on desktop literature review, a site inspection undertaken by ecologists, and photography to inform landscape character assessment.

This report has been prepared in accordance with Section 4.2 of the Wind Energy Guideline, Section 4.4 of the State Significant Development Guidelines and Section 3.1 of the Social Impact Assessment Guideline. Table 1-1 indicates where each requirement is addressed.

Table 1-1 Wind Guideline PEA and DPIE SSD Scoping Report Requirements and where addressed

Item	Section
WIND ENERGY GUIDELINE PEA REQUIREMENTS	
Describes the proposed wind energy project and its location in context (for example, it should identify the preliminary turbine layout, nearby dwellings, key public viewpoints and other key landscape features). Proponents should demonstrate the suitability of their chosen location and the viability of wind resources in that area.	2
Describes steps taken to assist potentially affected people and groups in understanding the proposed development and what it could mean for them.	4
Describes the proposed overall approach to stakeholder consultation for the EIS development process.	4
Identifies the key issues for the particular project.	6 and 7
Includes the results of the early consultation, including in relation to landscape values, and assesses the preliminary turbine layout against the preliminary assessment tools contained in the Visual Assessment Bulletin, including negotiations with landholders.	6.2.1 and Appendix B
Provides a high-level assessment of the environmental impacts of the project (focusing on those key issues).	6
Reports on the outcomes of community consultation undertaken to date.	4
DPIE 'SSD Guidelines'	
Describe the project in simple terms	2.4
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	3.2.2
Give an early indication of community views on the project and identify what engagement will be carried out during the preparation of the EIS	4

Item	Section
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	6 and 7
DPIE 'Social Impact Assessment (SIA) Guidelines'	
Initial understanding of project's social locality	6.3 and Appendix D
Initial understanding of the characteristics of the communities within the project's social locality	Appendix D
Initial evaluation of the likely social impacts for different groups in the social locality and the level to which these impacts need to be assessed	6.3 and Appendix D
Consideration of potential refinements and approaches in response to likely social impacts	Appendix D
Consideration of the reminder of the SIA tasks, including engagement	4 and 6.3

2. The Proposal

2.1 The Proponent

Windlab Developments Pty Ltd (Windlab) is the Proponent for the Burrawong Wind Farm. Windlab is a global developer and operator of renewable energy assets. Windlab's global headquarters are in Canberra, with regional offices in Sydney, Brisbane and Ararat and staff based in rural New South Wales and Queensland. Additionally, Windlab has offices in South Africa, Kenya and Tanzania.

Windlab has developed 1,095MW of capacity across three continents. These projects are either currently under construction or are amongst the best operating projects in their respective markets. An additional 1350MW of capacity has completed planning approvals and is in preparation for construction across Australia, South Africa, Tanzania, Kenya and the United States.

Windlab's involvement does not end at the development stage of a wind farm. In Australia, the Proponent maintains an ownership stake in the projects it develops and manages those projects through construction and operation.

Windlab understands the importance of effective community engagement and obtaining a social licence to operate. A core emphasis in Windlab's business philosophy is that Windlab leads the industry in demonstrating fair and transparent community engagement processes and outcomes. For example, the Coonooer Bridge Wind Farm located near Bendigo, Australia, is partly owned by landholders neighbouring the project. This was the first renewable energy project in the country with an ownership structure that includes the local farming community in this way. Windlab was awarded the Clean Energy Council Community Engagement Award in 2015 for this industry leadership and innovation. Windlab is constructing and developing other projects with similar local ownership benefits.

Australian wind projects

- Coonooer Bridge Wind Farm, VIC (19.8MW, Operating)
    - Developed, Constructed and Asset Managed by Windlab.
- Kiata Wind Farm, VIC (31MW, Operating)
    - Developed, Constructed and Asset Managed by Windlab.
- Ararat Wind Farm, VIC (240MW, Operating)
    - Asset Managed by Windlab.
- Oaklands Hill Wind Farm, VIC (63MW, Operating)
    - Developed by Windlab and Investec Bank.
- Collgar Wind Farm, WA (206MW, Operating)
    - Developed by Windlab and Investec Bank.
- Coopers Gap Wind Farm, QLD (453MW, Commissioning)
    - Developed by Windlab.
- Kennedy Energy Park, QLD (60MW, Commissioning)
    - Developed, Constructed and Asset Managed by Windlab.
- Lakeland Wind Farm, QLD (73MW, Approved)
    - Developed by Windlab and progressing towards construction.

South African and East African wind projects

- Amakhala Emoyeni, South Africa (134.4MW, Operating)
    - Developed by Windlab.
- West Coast One, South Africa (94MW, Operating)
    - Developed by Windlab and Investec Bank.
- Msenge; Iziduli; Umsinde; Khangela & Ishwati Emoyeni, South Africa (680MW, Approved)
    - Project(s) owned and developed by Windlab.
- Miombo Hewani, Tanzania (300MW, Approved)
    - Developed by Windlab.
- Meru County Energy Park, Kenya (100MW, Approved)
    - Developed by Windlab.

North American wind projects

- Bull Creek, Canada (29.2MW, Operating)
    - Developed by Windlab.
- Verdigre & Greenwich, USA (200MW, Approved)
    - Developed by Windlab.

2.2 Locality description and context

The Proposal is located in the South-West region of New South Wales. The Study Area (Figure 2-1) is within the Murray River Council Local Government Area (LGA) and includes the suburbs Yanga, Kyalite, and Moolpa. It is also immediately east of the Balranald Shire LGA, which includes the town of Balranald (15km north).

Key features include:

- The Limondale Solar Farm and Sunraysia Solar Farm, which are located directly to the west of the Proposal
- The Hay Plains, which are expansive low relief grasslands. Often highly modified for agricultural cropping with extensive irrigation channels.
- The town of Balranald, which is located 15km north of the Subject Land, on the western edge of the vast Hay plain and is a service centre for the surrounding irrigation district. It has a population of 2287 people (Australian Bureau of Statistics, 2020a).
- Yanga, which is located 8km from the northern tip of the Subject Land and has a population of 37 people (Australian Bureau of Statistics, 2020b).
- Directly adjacent to the Subject Land is Yanga National Park (66,734ha), Yanga Nature Reserve (1,939.83ha), and Yanga State Conservation Area (34,557.39ha). Each is highly valued for recreational tourism, fishing, hiking, bird watching and scenic views. The area contains a number of heritage listed homesteads, woolsheds and camping grounds.
- Yanga Homestead, which is a historic homestead on the shores of Lake Yanga located 7km north of the Subject Land. The homestead has a viewing and bird watching platform that faces south over the lake towards the Study Area.
- Kyalite (previously Wakool Crossing), which is located 10km south west of the Subject Land and has a population of 82 people. It consists of the Kyalite farm, caravan park and

Murray Valley Regional Park (Australian Bureau of Statistics, 2020c). Kyalite is located on the junction of the Wakool and Edward Rivers. It is a well-known fishing location, as well as Australia's largest pistachio farming district.

- As well as irrigation and environmental values, the Murrumbidgee and Wakool Rivers and riparian lands are highly valued for recreational tourism. At its closest point, the Murrumbidgee River is located approximately 12km north, whilst the Wakool River is located 5km south east of the Subject Land.
- The Balranald Mineral Sands Project includes construction, mining, primary processing and rehabilitation of two linear mineral sand deposits, known as the West Balranald and Nepean deposits. They are located 12km and 66km northwest of Balranald, respectively (Iluka Resources Limited, 2015)
- The Atlas-Campaspe Mineral Sands Project includes the development of a mineral sands mine and the construction and operation of a rail loadout facility by Cristal Mining Australia Ltd (Cristal Mining Australia Ltd, 2014). This occurs in the Balranald LGA, approximately 100km north of the town Balranald.

A combination of desktop searches and community consultation has identified a total of 13 potential residential dwellings within 8km of proposed turbine locations. Five of these are associated (host) landholders. A 2km buffer between turbine locations and sensitive receivers has been used to develop a preliminary layout in advance of detailed investigations and consultation.

Table 2-1 Nearby receivers

Dwelling status	0 – 4.0km	4.0 – 5.9km	5.9 - 8km
Involved	3	0	2
Non-Involved	3	1	4
Total	**6**	**1**	**6**

The distances between the closest receivers and preliminary wind turbine locations are detailed in Section 6.2.1 (Visual Amenity) and Section 6.2.2 (Noise Amenity). The location of all potential residential dwellings identified including associated and non-associated are provided in Figure 2-2. Note that further ground truthing is required to confirm the status of some of these potential residential dwellings. All dwellings identified as associated are potential host landholders. Figure 2-2 includes an indicative layout for the upper limit of turbines.

While there are a low number of nearby sensitive receivers for a wind farm of this scale, it is acknowledged that the Proposal has the potential for high visual and noise impacts on those close residential receivers identified in Table 6-1 (visual) and Table 6-2 (noise). As part of the Landscape and Visual Impact Assessment (LVIA) and Noise Impact Assessment (NIA) undertaken during the EIS phase, strategies to minimise and mitigate impacts will be developed, with a priority on negotiated agreements.

Due to the flat topography of the Study Area and scale of the proposed wind turbines, it is acknowledged the Proposal has the potential to be visible in excess of 8 kilometres (DPIE, Wind Energy: Visual Assessment Bulletin, 2016). To ensure a thorough assessment of the visual impacts, the LVIA assessment undertaken during the EIS phase will extend beyond 8 kilometres to include detailed assessment from key viewpoints and townships (in particular the townships of

Balranald and Kyalite, Yanga National Park, dwellings along the Edward River and dwellings within the National Park Estate).

Limited land use conflicts are anticipated between the Proposal and existing agricultural operations. These include intensive cropping (cereals and legumes) and grazing. As the Proposal would be a large development for this locality, the construction process and economic implications are likely to be of interest to the community.

A Stakeholder Engagement Plan has been developed to guide the engagement process with the community and other stakeholders. The response from preliminary consultation to date has been positive with regard to the development of a wind farm. Ongoing feedback from the engagement will be used to understand the community's concerns, to refine the Proposal's design and ensure the Environmental Impact Assessment addresses these concerns.

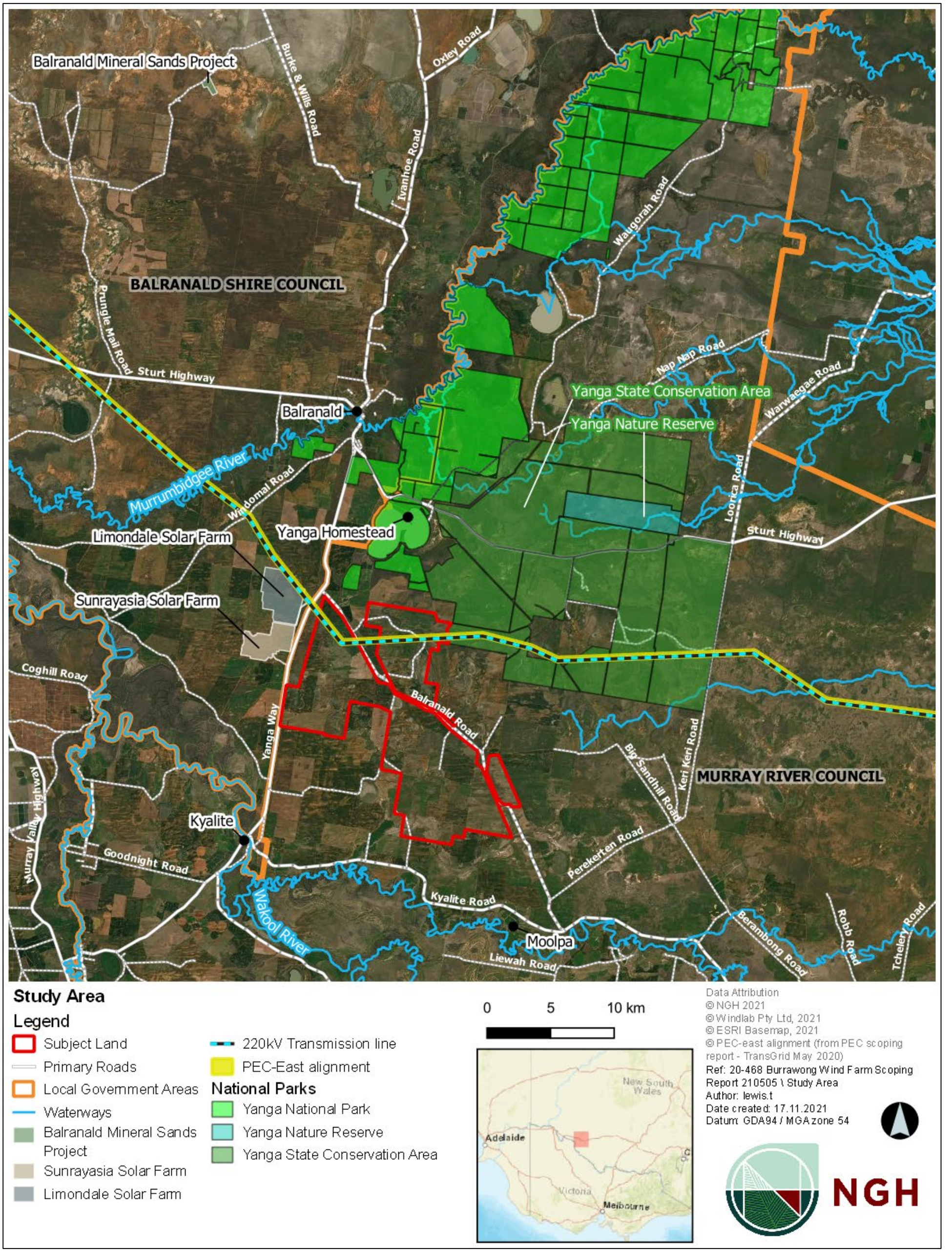

Figure 2-1 Study Area

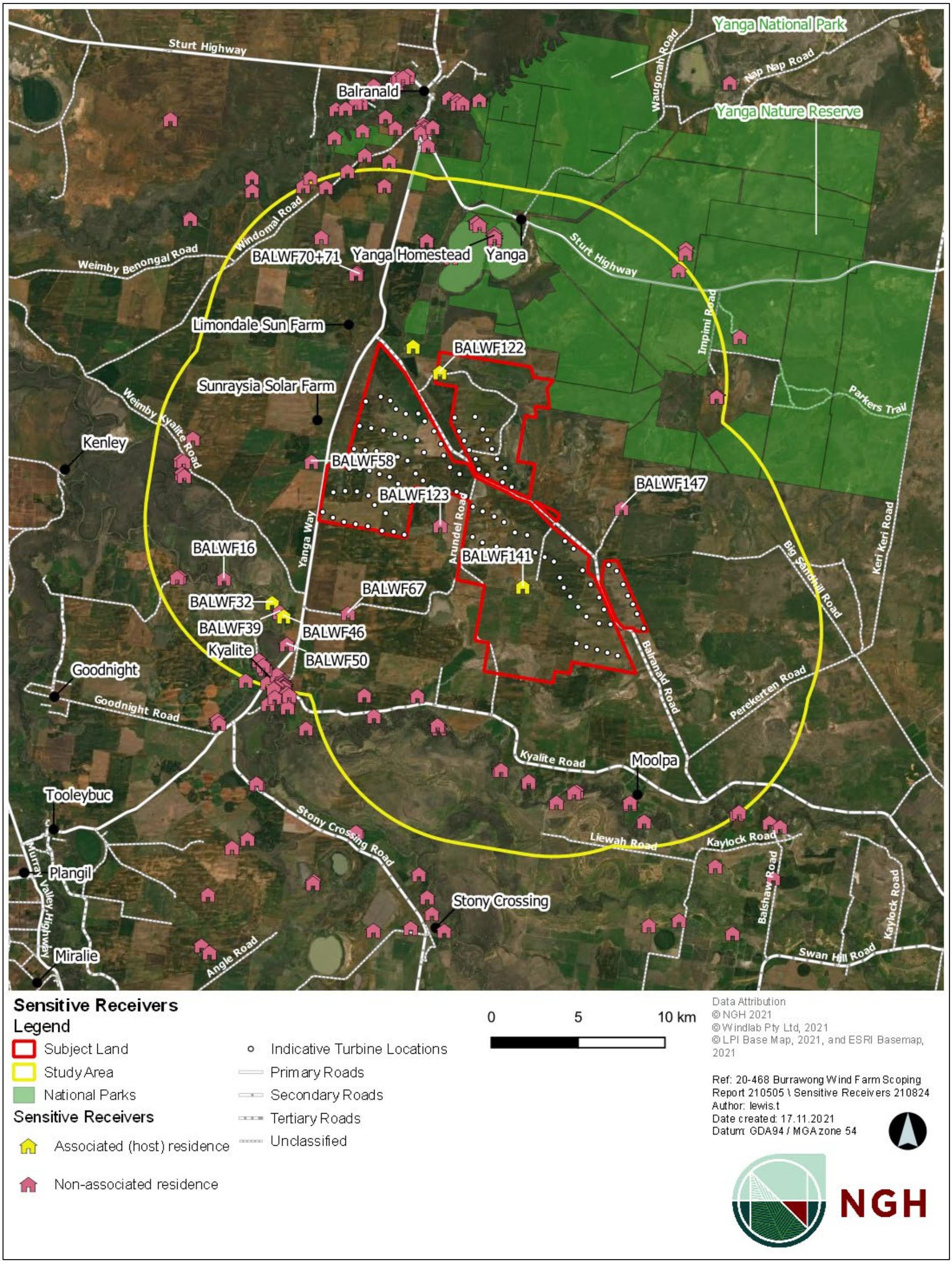

Figure 2-2 Location of sensitive receivers

Figure 2-3 Typical vegetation within the Subject Land

Figure 2-4 Typical agricultural cropping landscape within the Subject Land

2.3 The Development Site and investigation area

The Proposal is located on freehold land, with a small number of Crown Land easements traversing the Subject Land as roads and waterways. Crown Land easements border the western boundary of the Subject Land and includes Balranald Road, which traverses diagonally across the centre of the Subject Land (Figure 2-5). Arundel Road and Webb Road that border the Subject Land are gazetted local roads (Figure 2-2). Access and power would be required between the northern and southern sections of the site. Therefore, one or two easements would be required across Balranald Road. If any Crown public road or paper road is required for access to the Subject Land during construction and operation, then a Crown Road purchase application would be sought.

The Development Site features flat topography with scattered sand hills and patches of remnant native vegetation (Figure 2-6). Currently, the land is predominantly utilised for broad scale cropping activities and grazing (Figure 2-3). It is expected that there would be minimal impact to these activities once the Proposal is in operation.

The Subject Land is located on land zoned RU1 - Primary Production (refer to Figure 2-5). The Proposal neighbours land zoned E1 – National Parks and Nature Reserves to the northeast. The Lots and Deposited Plans that comprise the Subject Land are provided in Table 2-2 and shown in (Figure 2-7).

As a result of constraints identified in the preliminary desktop investigations with limited ground truthing (ecology) and photography to inform landscape character assessment, the Subject Land has been reduced in size to minimise potential impacts. The Subject Land will continue to be refined through the EIS phase. However, the current area provides some flexibility and enables the Proponent to continue to respond to input from consultation with the community and other key stakeholders, and any environmental constraints identified during the EIS phase.

Forest Creek runs through the southeast portion of the Subject Land and constitutes Key Fish Habitat (KFH) (being Strahler stream order 3). Other smaller waterways are interspersed across the Subject Land mostly throughout the eastern portion.

A set back or “buffer” will be applied where the Development Corridor boundary is adjacent to land zoned E1 – National Parks and Nature Reserves. As the site is largely treeless, an appropriate buffer will be investigated in consultation with NPWS stakeholders and the Developments adjacent to National Parks and Wildlife Service lands guideline (DPIE, Developments adjacent to National Parks and Wildlife Service lands, 2020). Reference will also be made to *Bats and Onshore Wind Turbine: Interim Guidance* (New England, 2014) which uses the minimum potential hub height and maximum blade length and maximum expected tree height to guide appropriate ecological buffers. No part of the Subject Land is within the National Park estate, and no direct impacts are proposed within the National Park estate.

Table 2-2 Relevant Lots/Deposited Plans for the Subject Land

Subject Land – freehold lots	
Plan Number	Lot Number
16335	10, 14
134424	1, 2, 3
720256	47
725897	84
751243	7, 10, 11, 13, 44
756520	2, 16, 19, 20, 21, 22, 23, 24, 26, 27, 35, 36, 38, 39, 42, 43, 48, 49, 50, 53, 54, 55, 57, 58, 59
756528	20, 21, 22, 23, 24, 28, 29, 30, 51, 58, 60, 62, 63, 64, 65, 67, 68, 69, 71, 72, 75, 80
756588	2, 4, 5, 6, 7, 10, 13
876082	482
1140351	2
Crown Land - where an easement may be required	
Plan Number	Lot Number
1158277	7308
1158277	7306
1159244	7300
1159244	7301
725898	86
725897	83

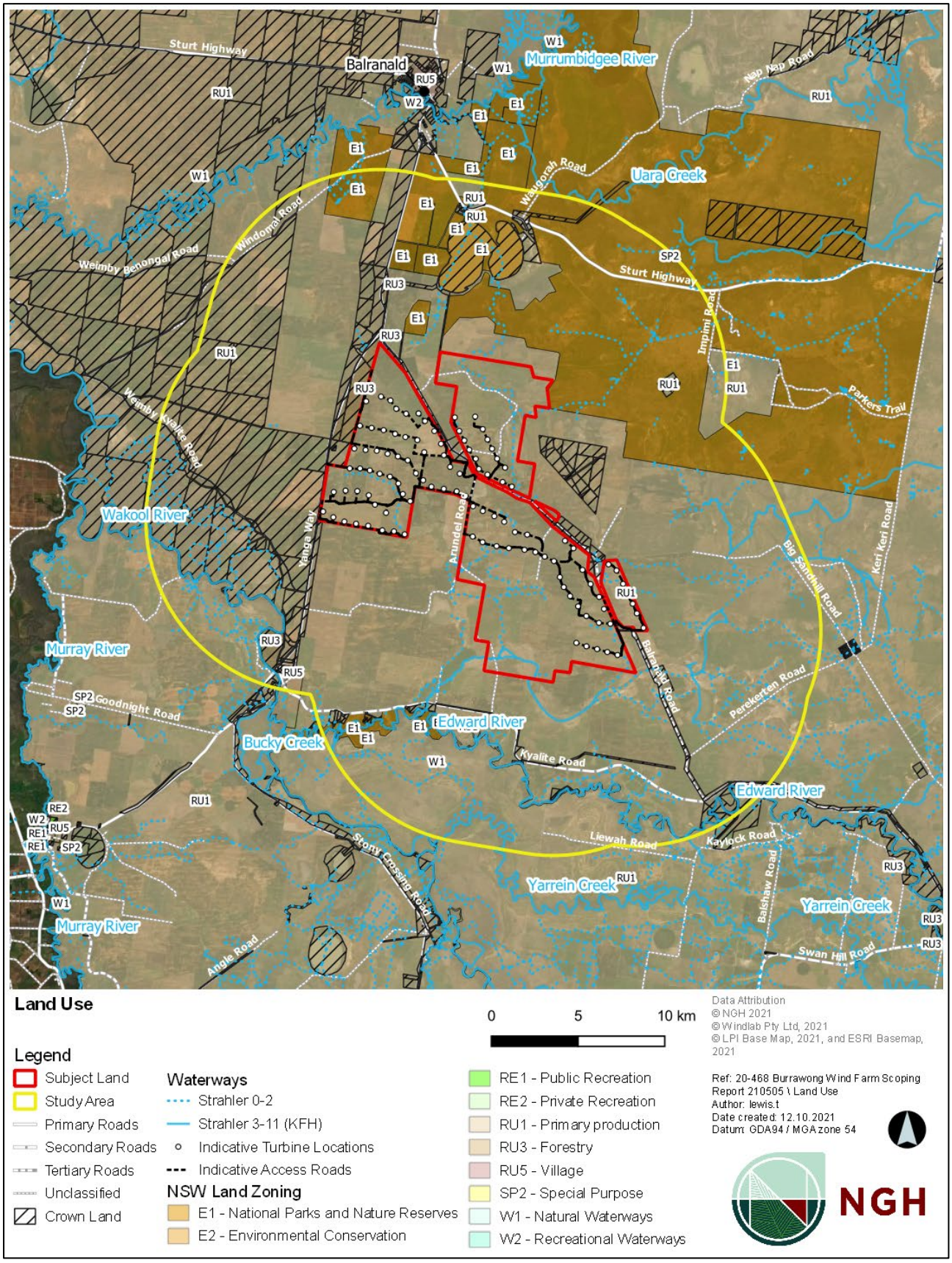

Figure 2-5 Land use zoning

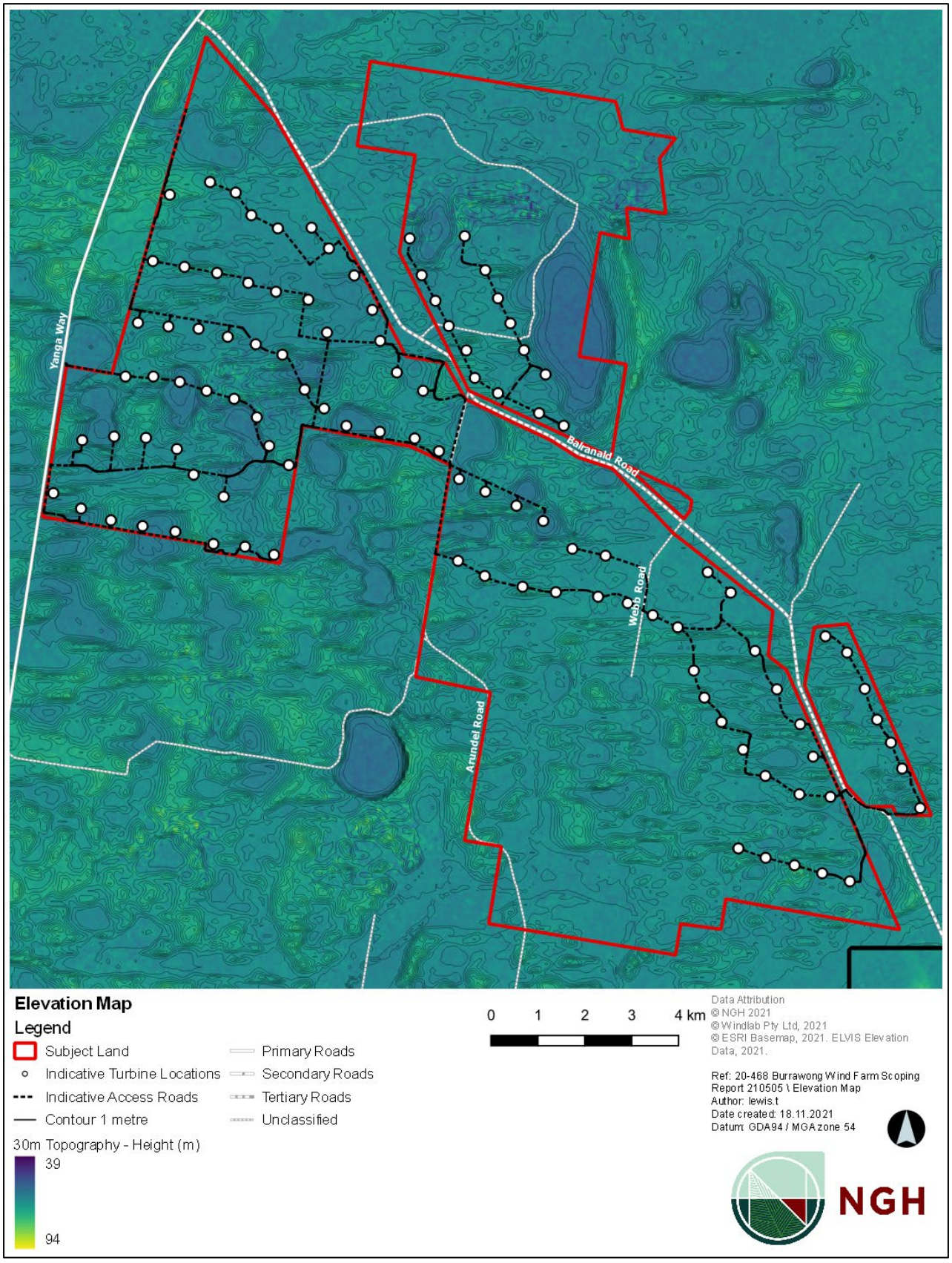

Figure 2-6 Elevation of the Subject Land

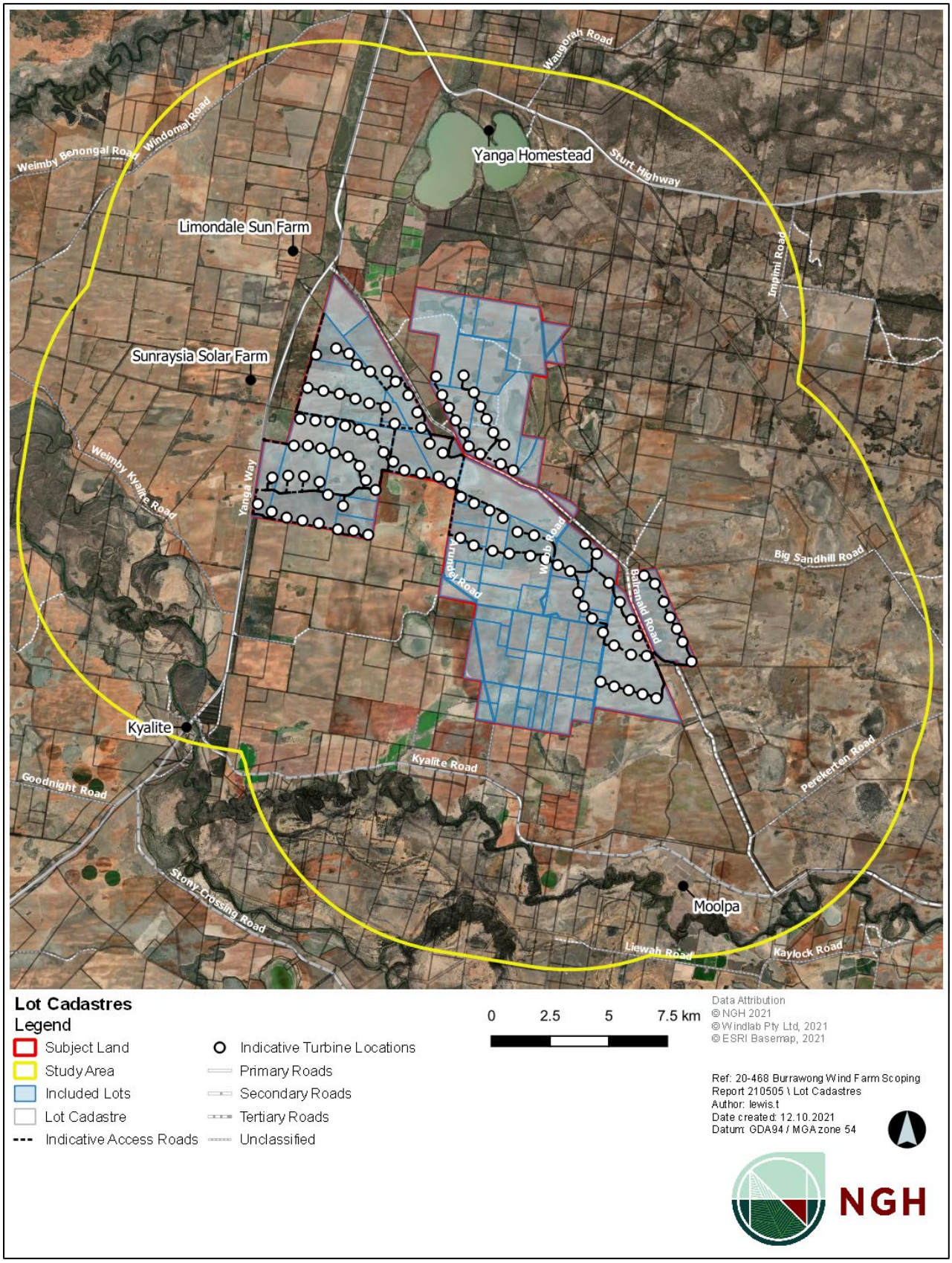

Figure 2-7 Lots affected by proposed infrastructure

2.4 The proposal description

This Scoping Report portrays a preliminary infrastructure layout, that will be refined as more detailed investigations are undertaken. Environmental investigations will proceed concurrent with infrastructure layout development to ensure the Proposal assessed in the EIS is the most appropriate for the site.

The layout presented in this Scoping Report may therefore present a higher level of impact than will result from the final project. For example, in this report:

- **The preliminary visual impact investigations have considered the potential visibility of 107 turbines at a maximum height of 300m positioned within and across the Development Site.**
- **The preliminary noise investigations were undertaken with conservative modelling assumptions and various representative turbine models.**
- **The preliminary biodiversity investigations have considered a broad study area with large buffers, rather than a more defined infrastructure footprint.**

This approach will ensure a comprehensive assessment of potential impacts and provide the best information to inform a refined infrastructure layout that responds to the identified constraints. This approach is expected however, to show elevated impact predictions at this early stage and should be interpreted in this context.

2.4.1 Overview

The Proposal would involve the construction, operation and decommissioning of up to approximately 107 Wind Turbine Generators (WTG) and associated ancillary infrastructure, with a generating capacity of up to approximately 750MW. The Proposal may also include a Battery Energy Storage System (BESS) of up to approximately 250MW / 500MWh.

The Proposal would also include the following infrastructure:

- Electrical infrastructure including one main substation and up to three smaller collector substations, with an electrical reticulation network (both underground and overhead)
- Other associated infrastructure including access tracks and hardstands, a permanent site office and maintenance and storage facilities
- A temporary construction compound, with office buildings, work areas and storage facilities as well as temporary concrete batching plants
- Temporary and permanent wind monitoring masts
- Road upgrades to be informed by further investigations
- Visual screening as required, to be determined by further investigations.

All proposed infrastructure, including WTGs, would be located within a Development Corridor and refined Development Site. The Development Site will be informed by detailed site investigations as the assessment, planning and design stages continue. The Base Case Development Corridor (~2660ha) is based on a 50m wide buffer (i.e. 100m wide) for

proposed access roads and electrical cables, and 200m wide buffer (i.e. 400m diameter) for proposed turbines.

Staging

The Proposal comprises up to 107 turbines and as is typical for a project of this scale, it is anticipated that the Proposal could be constructed in stages. As such, the Proponent is seeking flexibility to construct the Proposal in stages, if required.

Timeframes

At this stage, the Proponent intends to submit its EIS for public exhibition in late 2022.

In parallel to seeking development approval, the Proponent would commence negotiation of commercial contracts to finance and construct the Proposal. Timeframes are dependent on Energy Connect, but the Proposal has the potential to be construction ready by 2023.

Construction is expected to take 24 to 36 months and would include commissioning and performance testing to demonstrate compliance with grid and other requirements. The construction timeframe will depend on the final configuration of the Proposal.

The expected operational life of the project is 30 to 35 years, at which point the site would be decommissioned or re-powered.

2.4.2 Major infrastructure components

Wind Turbine Generators (WTGs)

The final number and location of WTGs is yet to be finalised but would not exceed 107. Outcomes from detailed environmental and technical studies as well as feedback from community consultation undertaken as part of the EIS will determine the final Development Site configuration.

The WTG specification will be refined as part of the detailed engineering undertaken as part of the EIS. To allow for future turbine technology, the Scoping Report is based on the following turbine configuration:

- Hub height up to a maximum of 200m
- Blade length up to a maximum of 100m
- Tip height up to a maximum of 300m.

Battery Energy Storage System (BESS)

The Proposal may include a Battery Energy Storage System (BESS) of up to 250MW / 500MWh. The battery would be based on lithium-ion technology and located adjacent the main substation.

Substations and electrical infrastructure

The Proposal would include one main substation and up to three smaller collector substations to step up the voltage from the WTG to the voltage for the electricity network.

The substations would include power transformers, switchgear, protection and communications equipment, and a control room.

An underground electrical reticulation network would connect the WTGs to the collector substations. The cables would generally follow the access tracks between the WTGs. An underground or overhead electrical reticulation network would connect the collector substations to the main substation. All cables would be installed in accordance with relevant Australian Standards.

The Proposal may also include up to 15km of overhead transmission line, which would form the physical connection between the main substation, collector substations and the electricity network that traverses the Subject Land. Depending on the connection configuration, this overhead line may be 330/500kV (for connection into EnergyConnect), or 220kV (for connection into the existing 220 kV TransGrid transmission line).

The final design and location of the substation and electrical infrastructure has not been determined. Further design work will be undertaken in the EIS phase and will be informed by detailed technical and environmental studies. Indicative locations of the substations have been included in the preliminary layout, as shown in Figure 2-8. Note that five potential substation locations have been included in the preliminary layout, but a maximum of four would be required by the Proposal.

Grid connection

The Proposal would either connect into EnergyConnect, or alternatively into the 220kV TransGrid line. The 220kV TransGrid line traverses the site, as shown in Figure 2-8. The proposed easement for the EnergyConnect line also traverses the site and is located directly to the north of the easement for the existing TransGrid line.

The Proposal is also located in the proposed South-West Renewable Energy Zone (SW REZ), which the NSW Government has identified as a target area for renewable energy development in its Transmission Infrastructure Strategy and Electricity Infrastructure Roadmap.

Other associated infrastructure

The Proposal would include access tracks connecting each WTG, as well as a crane pad or hardstand adjacent to each WTG foundation. Appropriate measures for water management and soil conservation will be taken into consideration when designing and constructing the access tracks. A permanent site office and permanent maintenance and storage facilities would also be required.

Construction of the Proposal would require temporary concrete batching plants, rock crushing facilities, gravel pits and laydown areas. A temporary construction compound would also be required, including office buildings, work areas and storage facilities. Construction of water infrastructure such as bores and/or turkey's nests may also be required.

The proposal would also include temporary and permanent wind monitoring masts.

The final design and location of the associated infrastructure has not been determined. Further design work will be undertaken in EIS phase and will be informed by detailed technical and environmental studies.

Minor road upgrades

Access to the Development Site during construction and operation is proposed via the existing local road network, and would primarily utilise Yanga Way, Balranald-Moulamein Road and Arundel Road. The broader haul routes under consideration are discussed in Section 6.2.5.

Where required, roads will be upgraded to accommodate transportation of wind farm components. This may include (but is not limited to) temporary road widening, temporary removal of street signage and lighting, and temporary protection near overhead power lines.

Upgrade requirements for these roads and intersection treatments will be investigated further as part of the EIS.

2.4.3 Ancillary activities

The Proposal would include the following ancillary activities:

- Geotechnical investigations to inform location of infrastructure
- Sourcing of gravel, rock and other materials for construction
- Sourcing of water for construction
- Consideration of visual screening
- Potential for subdivision and boundary adjustments.

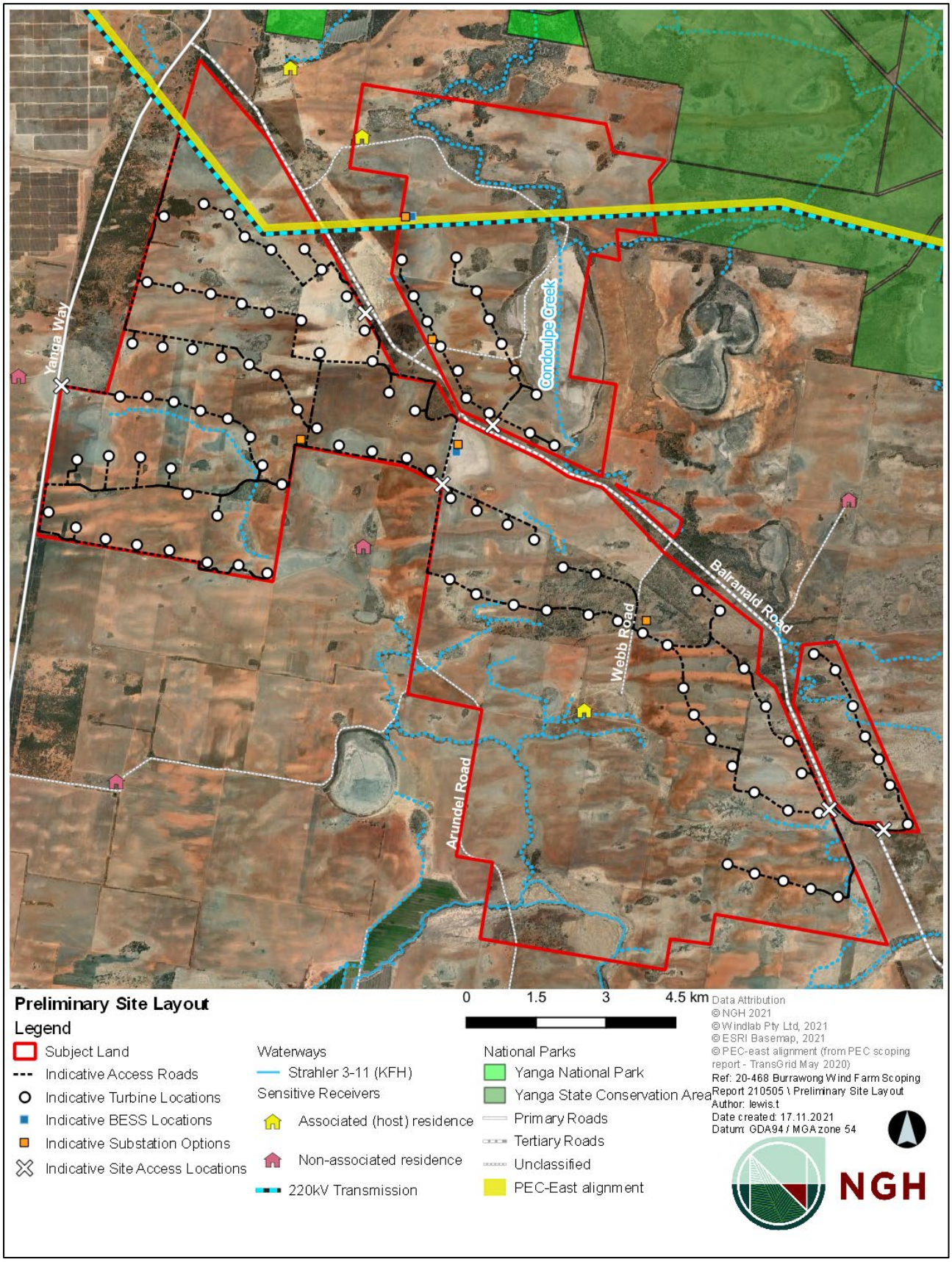

Figure 2-8 Preliminary site layout: indicative only

2.4.4 Preliminary layout

A preliminary layout for the Proposal is shown in Figure 2-7. While still highly indicative, an iterative process has been used to develop it, informed by:

- Wind monitoring data
- Preliminary consultation with key stakeholders
- Preliminary environmental assessment (desktop with limited ecological ground truthing)
- Technical and other practical constraints.

In the preliminary layout, wind turbines and associated infrastructure have been sited to minimise and/or avoid environmental and community impacts identified in the preliminary desktop investigations with limited ground truthing (ecology) and photography to inform landscape character assessment. The preliminary layout has also considered the requirements of host landholders to minimise the impact on existing farming operations.

Consideration of potential visual and noise impacts

Consideration of potential visual impacts has influenced the preliminary layout and proposed project design as follows:

- To reduce the impact on the township of Kyalite, the layout was revised to remove turbines adjacent to the south-western portion of the Subject Land.
- To reduce the impact on the National Park Estate, the layout was revised to remove turbines north of the transmission line.
- During consultation, local rivers were identified as having high landscape values. To reduce the visual impact from the Edward River, the layout was revised to remove turbines between the southern boundary of the Subject Land and Kyalite Road.

Due to the scale of the proposed project, it is acknowledged that the Proposal has the potential for high visual and noise impacts on the close residential receivers identified in Table 6-1 (visual) and Table 6-2 (noise). As part of the Landscape and Visual Impact Assessment (LVIA) and Noise Impact Assessment (NIA) undertaken during the EIS phase, strategies to minimise and mitigate impacts will be developed, with a priority on negotiated agreements.

Due to the flat topography of the Study Area and scale of the proposed wind turbines, it is acknowledged that the Proposal has the potential to be visible in excess of 8 kilometres (DPIE, Wind Energy: Visual Assessment Bulletin, 2016). To ensure a thorough assessment of the visual impacts, the LVIA assessment undertaken during the EIS phase will extend beyond 8 kilometres (DPIE, Wind Energy: Visual Assessment Bulletin, 2016) to include detailed assessment from key viewpoints and townships (in particular the townships of Balranald and Kyalite, Yanga National Park, dwellings along the Edward River and dwellings within the National Park Estate).

Consideration of potential biodiversity impacts

Consideration of potential biodiversity impacts has influenced the preliminary layout and proposed project design as follows:

- Layout was revised to remove turbines north of the transmission line to increase the buffer with the National Park Estate.
- Layout was revised to avoid the high value biodiversity areas identified as part of the preliminary investigations (desktop study with limited ecological ground truthing).
- Layout was revised to minimise the number of potential crossings of ephemeral water courses required for access tracks and/or cables.

Consideration of feedback from preliminary consultation

In addition, feedback from consultation has influenced the preliminary layout and proposed project design as follows:

- As above, local rivers were identified as having high landscape value. The layout was revised to remove turbines between the southern boundary of Subject Land and Kyalite Road to increase the distance between the proposal and the Edward River.
- Potential for land use conflicts was raised as a concern, in particular overhead powerlines cutting across paddocks and interfering with farming operations. To minimise impacts, a site with direct access to transmission infrastructure was selected so that no easements that cut across neighbouring properties will be required.
- Safety of accessing the site via the existing access point on Yanga Way was raised as a concern, as undulation of road has the potential to impact visibility. A new access point was identified approximately 2km to the north.
- Potential impact on agricultural and recreational aviation was raised as a concern. After consultation to understand how the airstrip is used within the Subject Land, the layout was revised to remove turbines from the airstrip take-off and approach. The layout may be further revised with input from specialists and potentially affected airstrip users as part of the detailed aviation studies undertaken during the EIS phase.

A 2km buffer between turbine locations and sensitive receivers has been used to develop a preliminary layout in advance of detailed investigations and consultation.

2.4.5 Refinement and revision

As a result of constraints identified in preliminary desktop investigations with limited ground truthing (ecology) and photography to inform landscape character assessment, the Subject Land has been reduced in size to minimise potential impacts on Yanga National Park and the townships of Kyalite and Balranald.

The Subject Land and indicative layout will continue to be refined through the EIS phase. However, the current area provides some flexibility and enables the Proponent to continue to

respond to input from consultation with the community and other key stakeholder, and any environmental constraints identified during the EIS process.

Through the EIS process, the design will continue to be informed by the principles in the Wind Energy Guidelines, and refined and optimised based on following inputs:

- Detailed environmental studies, aimed at minimising and/or avoiding impacts
- Feedback from community and agency consultation, aimed at addressing issues raised by stakeholders
- Detailed engineering studies, and technical and practical constraints
- Consideration of commercial viability.

2.5 Site selection summary

In addition to the wind resource, the site was selected based on a number of factors including the potential to connect to the electricity network and compatibility with local land uses. Some of the benefits of the Burrawong site are outlined below:

Environmental and social factors

- There is low population density. The site was selected to minimise the number of close residential receivers (three non-involved residential receivers within 4km) which will assist in managing potential visual and noise impacts.
- Preliminary consultation with the community has been very positive.
- The Proposal is compatible with existing land use. The land is currently used for agricultural activities, predominantly cropping and grazing. It is expected that there will be minimal impact to these activities once the Proposal is in operations.
- Under the Land and Soil Capability Assessment Scheme, the majority of the Subject Land is categorised as Class 6, with small areas of Class 4. The land is considered to have severe to very severe limitations for cultivation. The Proposal therefore provides alternative land use where intensive farming is not recommended.
- A Land Category Assessment indicates that the Proposal can maximise the use of category 1 land, thereby reducing biodiversity impacts.
- The Proposal will generate significant investment in the broader Murray River and Balranald areas. The site is located 15km south of the Balranald township and there will be a wide range of opportunities for local contractors and suppliers.

Project-specific factors

- The site has good access to both existing and proposed electricity transmission infrastructure and is located in the proposed South West REZ. The existing 220kV TransGrid line, and the proposed EnergyConnect line both traverse the site.
- The site can support up to 107 turbines. The Proposal could produce up to 2,300 gigawatt-hours (GWh) of renewable energy per year which would displace approximately 2 million tonnes of carbon dioxide emissions per year

- The terrain is flat and predominantly cleared, which is expected to result in simple construction and low capital costs. This means that power from the wind farm can be sold at competitive rates, which will help bring down electricity prices.

3. Strategic need and alternatives

This section highlights the need that the NSW electricity market has for new generation capacity. It also outlines how the Burrawong Wind Farm contributes to local, state and federal government objectives in relation to renewable energy and climate change policy.

3.1 Strategic need

In short, the NSW market needs electricity as ageing coal-fired power stations reach the end of their operational life. The Australian Energy Market Operator (AEMO) has forecast that four of the five coal-fired power stations in NSW are expected to retire by 2035 (AEMO, 2020). This is equivalent to 9000MW of generation capacity or approximately 75% of electricity supply in NSW. The forecast retirement of these power stations is illustrated in Figure 3-1. With the scheduled retirement of Liddell in 2022-2023, the NSW electricity market has an immediate need for new generation to bridge this gap.

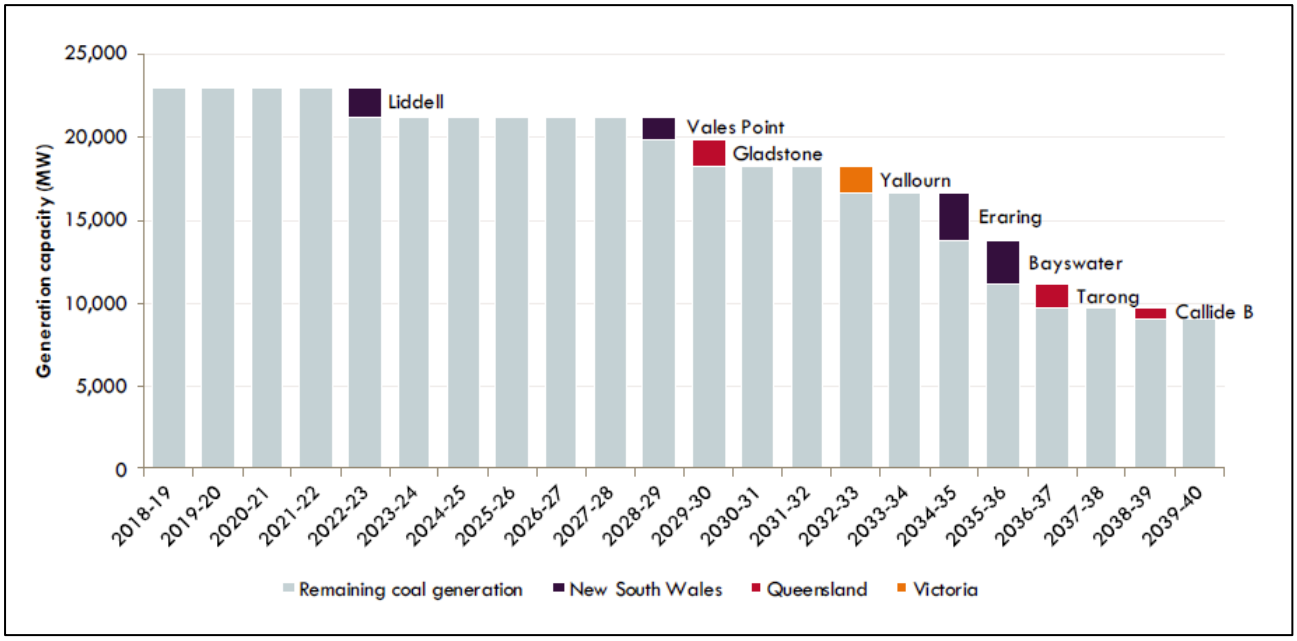

Figure 3-1 Expected retirement of coal in NSW (Energy Networks Australia, 2020)

Proposed interconnection upgrades between NSW and South Australia and Victoria enable the import of renewable energy from these states. However, regional areas in NSW with high quality wind resource could miss out on the potential local benefits of developing this resource. The Proposal would not only provide replacement generation capacity, developing the high-quality wind resource at Burrawong Wind Farm would also result in significant investment in the Murray River and Balranald regions. In addition, the Proposal has the potential to be construction ready by 2023.

3.1.1 State Government context

Renewable energy policy

The NSW Government has released various policy documents since 2018, with the common objective of delivering cheaper, cleaner and more reliability electricity to support future growth. These include:

- NSW Transmission Infrastructure Strategy (DPE, 2018)
- NSW Electricity Strategy (DPIE, 2019)
- NSW Electricity Infrastructure Roadmap (DPIE, 2020)

As highlighted in the NSW Electricity Infrastructure Roadmap (DPIE, 2020, p. 6):

> *NSW is at a crossroads. As our existing power sources come to the end of their lives and global markets seek cleaner, cheaper and more reliable energy sources, we have a once in a generation opportunity to redefine the State as a modern, global energy superpower*

The Proposal would contribute to the achievement of the NSW Government's core objectives of cheaper, cleaner and more reliable electricity as follows:

Cheaper

- Wind energy is already one of the cheapest forms of new build generation, as demonstrated in the 2019-20 GenCost report (Graham, Hayward, Foster, & Havas, 2020), produced by CSIRO in collaboration AEMO (see Figure 3-2). With its high-quality wind resource and advantageous site characteristics, the Proposal is expected to be one of the lowest cost generation options to replace coal generation in NSW. These site characteristics are further detailed in 3.2.2.

Cleaner

- Due to the quality of the wind resource across the site, the Proposal has the potential to support a wind farm of scale (approximately 750MW). The Proposal would generate up to approximately 2,300GWh per year, saving approximately 2 million tonnes of carbon dioxide per year when compared to typical fossil fuel electricity generation in Australia, and contributing to a reduction in global greenhouse gas emissions.

More reliable

- The generation profile at Burrawong Wind Farm is anti-correlated to the generation profile of solar and wind in other regions, which reduces variability of power supply. The generation profile based on 24 months of on-site data is provided in Figure 3-3. This makes the Burrawong Wind Farm a valuable wind resource that has the potential to reduce the need for more expensive firming options. In addition, the inclusion of a Battery Energy Storage System (BESS) is also being considered.

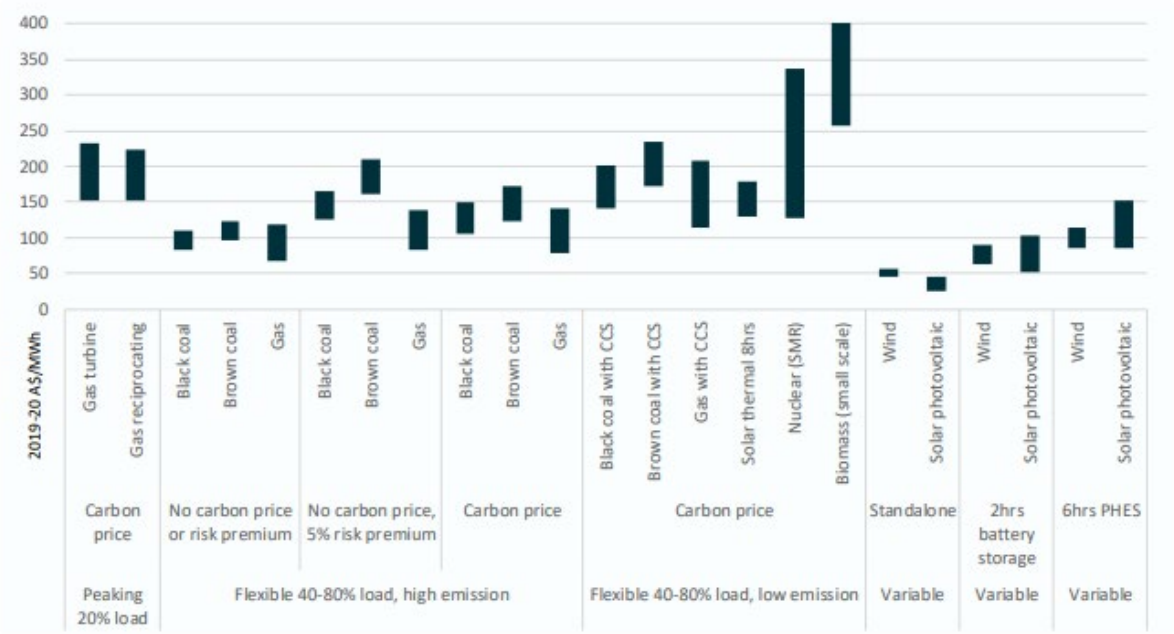

Figure 3-2 Calculated LCOE by technology and category for 2030 (Source GenCost 2019-20)

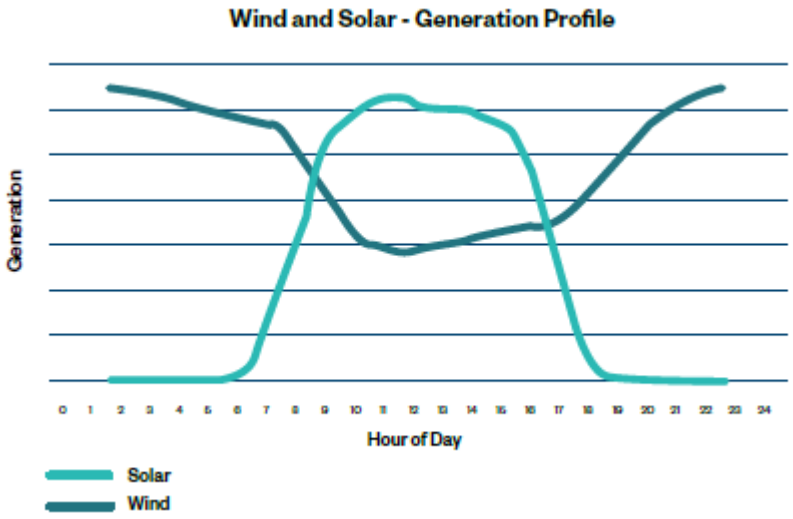

Figure 3-3 Generation profile of Burrawong Wind Farm compared to solar

The Transmission Infrastructure Strategy and Electricity Infrastructure Roadmap both consider the establishment of Renewable Energy Zones (REZ) a key part of delivering against these objectives. Although five zones have been identified, the priority zones for development are in the Central-West, New England and South-West regions of NSW. As highlighted in the Transmission Infrastructure Strategy (DPIE, 2018), these zones have been selected in areas with energy resource potential, reduced land use constraints and where planned transmission upgrades can lower the cost of connection across multiple projects. The Proposal is located in the proposed South-West REZ.

In December 2020, the NSW Electricity Infrastructure Investment Act was enacted into law with bi-partisan support. Together with the Electricity Infrastructure Roadmap, this legislation is intended to (DPIE, 2020):

- attract up to $32 billion in private investment for regional energy infrastructure by 2030
- support 6300 construction jobs and 2800 ongoing jobs, mostly in regional NSW
- save around $130 a year on the average NSW household electricity bill
- help reduce NSW electricity emissions by 90 million tonnes by 2030.

With an anticipated capital cost of approximately $960 million, and the potential to create up to 250 full time equivalent (FTE) jobs during construction, and up to 15 FTE jobs during operations, the Proposal would contribute to realising these aspirations.

Climate change policy

The NSW Climate Change Policy Framework was introduced in 2016, with an aspirational long-term objective of achieving net zero emissions by 2050 (OEH, 2016b). The NSW Renewable Energy Action Plan was also introduced in 2016, and the Proposal is consistent with the three goals of the plan (NSW Government, 2016) which are:

1. Attract renewable energy investment and projects
2. Build community support for renewable energy
3. Attract and grow expertise in renewable energy.

In March 2020, the NSW State Government also introduced the Net Zero Plan Stage 1: 2020-2030, and this was updated in September 2021. The updated plan sets an interim target of reducing emissions by 50% by 2030 (when compared to 2005 levels).

The Proposal would generate up to 2,300GWh per year, saving approximately 2 million tonnes of carbon dioxide per year when compared to typical fossil fuel electricity generation in Australia, and contribute to the achievement of this target.

3.1.2 Local Government context

The Proposal is consistent with various Murray River and Balranald Shire policy documents as outlined below:

- Murray River Local Strategic Planning Statement 2020-2040 (Murray River Council, 2020), which seeks to ‘promote local renewable energy projects by collaborating with energy providers’ under Planning Priority 9.
- Murray River Community Strategic Plan 2018-2028 (Murray River Council, 2018) and its objective to ‘identify new opportunities and actively encourage investment in alternate and renewable energy’ as part of Objective 4.1.
- Balranald Shire Council Local Strategic Planning Statement (Balranald Shire Council, 2020), which seeks to leverage the competitive advantage of the region (namely access to transmission infrastructure, land availability and favourable climate conditions) to encourage renewable energy projects.
- Balranald Shire Community Strategic Plan 2027 (Balranald Shire Council, 2020), and its strategy to ‘promote potential energy investment’ under Objective 2.1.

- Riverina Murray Regional Plan 2036 (NSW Government, 2017), which identifies renewable energy as a priority growth sector, and seeks to 'promote the diversification of energy supplies through renewable energy generation' under Direction 11.

The Proposal would contribute to the objectives of these regional policy documents by unlocking the wind energy potential in the region, diversifying the local economy and generating significant investment in the region.

3.1.3 Federal Government context

In December 2015, Australia, among another 194 countries, agreed on the United Nations Paris Agreement on climate change. The following are key objectives of the agreement:

- a goal to limit the increase in global temperatures to well below 2 degrees and pursue efforts to limit the rise to 1.5 degrees
- a commitment to achieve net-zero emissions, globally, by the second half of the century
- differentiated expectations for developed nations, including Australia, that they will reduce their emissions sooner than developing nations.

The most recent Quarterly Update of Australia's Greenhouse Gas Inventory: September 2020 (DoISER, 2020) shows that electricity generation is the largest individual contributor of greenhouse gas emissions in Australia, representing 33.4 per cent of emissions in the year up to September 2020.

The development of renewable energy projects is considered to be one of the most effective ways to meet the nation's international commitments to reduce greenhouse gas emissions and the Proposal would contribute to Australia's effort to meet the Paris Agreement.

3.2 Project viability

3.2.1 Technical feasibility

Wind resource is a key factor in establishing the technical feasibility of a proposed site, and this site was identified using Windlab's proprietary wind modelling software. Windlab was established in 2003 to commercialise this world leading technology that was developed by the CSIRO. For more than 20 years, Windlab has applied science to develop, construct and operate the nation's top performing wind farms. The viability of the wind resource has also been confirmed with 24 months of on-site wind monitoring data. The Proposal would also employ proven and mature wind turbine technology.

The ability to connect to the electricity network is another key factor. The Proposal benefits from having multiple grid connection options, including an existing TransGrid-owned 220kV transmission line and the proposed EnergyConnect line route, both of which traverse the Subject Land. EnergyConnect is a new 330kV electricity transmission line, or interconnector, that will connect the New South Wales, South Australian and Victorian power grids. The NSW section of the project is being built by TransGrid and received approval from the Australian Energy Regulator in May 2021.

While both options provide an avenue to export electricity directly into the National Electricity Market (NEM), the full capacity of the Proposal can only be exported into EnergyConnect. Further studies are required to confirm the capacity that could be exported into the existing 220 kV line, and these will be undertaken as part of the EIS phase.

In addition, the Proposal is located in the proposed South-West REZ, which the NSW Government has identified as a priority area for renewable energy development in its Transmission Infrastructure Strategy and Electricity Infrastructure Roadmap.

3.2.2 Alternatives considered

Due to its high-quality wind resource and advantageous site characteristics, Burrawong Wind Farm has the potential to be one of the lowest cost generation options to replace coal generation in NSW. Benefits over alternative sites considered include a number of technical, environmental and social factors:

- Low capital costs, as the site is flat and mainly cleared and has good access to established infrastructure and workforce in nearby Balranald, which is expected to reduce the complexity of construction
- More efficient use of grid infrastructure due to diurnal wind profile which is geographically diverse from wind in other regions and complements solar
- Low population density, site selected to minimise the number of close residential receivers (three non-involved residential receivers within 4km)
- A Land Category Assessment indicates that the Proposal can maximise the use of Category 1 land, thereby reducing biodiversity impacts
- Alternative land use and income stream on land considered to have severe to very severe limitations for cultivation under the Land and Soil Capability Assessment Scheme
- Compatible with existing land use. The land is currently used for agricultural activities, predominantly cropping and grazing. It is expected that there will be minimal impact to these activities once the Proposal is in operations
- Located in the proposed South-West REZ, identified as a priority area for renewable energy development by the NSW Government
- Preliminary consultation with the community has been very positive.

The do-nothing option was also considered, but given NSW needs 9,000MW of generation capacity over the next 15 years, the importance of identifying and developing high-quality wind farms, such as the Burrawong Wind Farm, is paramount.

3.3 Project benefits

The Proposal would provide a number of benefits at local, regional and national level.

Environmental benefits

The Proposal will have the ability to produce up to 2,300 gigawatt-hours (GWh) of renewable energy per year, which will:

- Displace ~2 million tonnes of carbon dioxide emissions
- Power 470,000 typical Australian homes
- Be the equivalent of removing 400,000 cars from the road.

Social-economic benefit

Regional Australia leads the world in agricultural and resource productivity, and wind is another valuable resource and a way of diversifying regional economies. In addition to providing an additional income stream to associated landholders, the Proposal is expected to create up to 10-15 permanent full time equivalent (FTE) jobs during operations, with 4-6 of these expected to be based in the local area.

The Proposal is expected to create up to 250 FTE jobs during construction, in addition to opportunities for local contractors and suppliers. These include supply of a wide range of goods and services from trade equipment, materials and services, to accommodation, food and fuel. Most of these benefits would occur during the construction period, but there would be some sustained benefits over the 30-35 year operational life of the Proposal.

The Australian Energy Market Commissions (AEMC) analysis indicated that multiple renewable energy projects is also likely to put downward pressure on the wholesale electricity prices, which has the potential to reduced electricity bills for households and businesses across NSW.

Community benefit

The DPIE (formerly Office of Environment and Heritage) commissioned community research regarding attitudes to renewable energy in 2014 found that 81% of people support the use of renewable energy in the form of wind farms in NSW. Furthermore, 73% of respondents supported having a wind farm within the local region. Among the reasons for this were benefits to the environment and local economy. A significant amount (83%) of respondents believed that NSW should produce more of its energy from renewables over the following five years (Office of Environment and Heritage, 2015).

At this early stage, the response to the Proposal from the community has been positive. The community has a good understanding of renewable energy projects from experience with the nearby solar farms, and wind farms in western Victoria. Many people made comparisons to the solar farms, mineral sand projects and other agricultural projects in the area, and the positive benefits for the local community from these projects. Further details on the consultation undertaken to date are provided in section 4.

Windlab maintains an ownership stake in the projects it develops and manages those projects through construction and operation. The communities that host its projects are life-long stakeholders and Windlab is committed to investing in the region and sharing the long-term benefits of its projects with host communities. Windlab also understands that to achieve mutually beneficial outcomes, any benefit sharing scheme must respond to the needs of the host community. The details of the benefit sharing scheme will therefore be co-designed with neighbours and the wider community through the EIS phase of the project.

4. Community and stakeholder engagement

This section outlines Windlab's approach to community and stakeholder engagement, together with the consultation objectives and guiding principles that Windlab applies to each of its projects. Windlab undertakes its engagement according to project specific Stakeholder Engagement Plans (SEP). A SEP has been developed for the proposed Burrawong Wind Farm and Section 4.2 provides a summary of the consultation undertaken by Windlab to date. Section 4.3 identifies the likely extent of community interest in the Proposal and provides an overview of the consultation that will be undertaken by Windlab as part of the EIS phase.

4.1 Windlab approach

The Windlab approach to project development is founded both in science and a desire to be welcomed by the communities that host our projects. We take pride in the innovative and successful community outcomes that have been realised at Windlab projects across Australia and Africa. Each project has unique local aspects that require consultation and consideration such that concerns can be addressed and local benefits tailored to local objectives. However, the broad objectives, principles and approach are similar across all projects.

Windlab's community consultation objectives

- To build trust and long-term relationships and partnerships with the communities that host our projects
- To understand and respond to the needs of the communities that host our projects
- To achieve mutually beneficial outcomes.

Windlab's community engagement principles

- Transparency – we will share project updates with the community
- Respect – we will respect the core values of the community
- Genuineness – we will listen to and consider feedback from the community
- Community – we want to be welcomed by the community and to share the long-term project benefits.

These objectives and principles are aligned with the objectives of the NSW Wind Energy Guidelines, and in particular they are intended:

- to facilitate meaningful, respectful and effective community and stakeholder engagement across the development assessment process
- to facilitate better outcomes by requiring early identification of impacts to drive better siting and design.

Table 4-1 illustrates how Windlab applies these principles in practice.

Table 4-1 Windlab's community engagement principles in practice

Principle	In Practice
Transparency – we will share project updates with the community	Identify all affected and/or interested stakeholders, and understand their communication preferences Provide accurate and timely information in an accessible way throughout the project lifecycle Be open about how and why decisions are made
Respect – we will respect the core values of the community	Gather a range of views from across all demographics Identify community and environmental values Identify constraints and opportunities for the project area, including consideration of potential social impacts
Genuineness – we will listen to and consider feedback from the community	Provide appropriate channels and opportunities for genuine input Accurately capture people's views, concerns and suggestions Respectfully respond to people's concerns and suggestions Consider options to eliminate, reduce or otherwise manage impacts
Community – we want to be welcomed by the community and to share the long-term project benefits	Be available at times and places that work for the community Co-design benefit sharing scheme for nearby neighbours Co-design benefit sharing scheme for the wider community Promote local involvement and employment

Windlab's consultation approach

Windlab understands that each community is unique, and our approach to consultation will be adapted to the needs and expectations of the community, which may change as the project progresses. While recognising the importance of being responsive and flexible, Windlab's approach is also informed by industry best practice (CEC, 2018); (DELWP, 2021) and the widely adopted International Association for Public Participation (IAP2) spectrum, illustrated in Figure 4-1.

Windlab is committed to 'involve' the community in the development of the Proposal, and to 'collaborate' with the community in the co-design of a benefit sharing scheme for the Proposal.

Figure 4-1 IAP2 Public Participation Spectrum (source: Clean Energy Council – Community Energy Guidelines for the Australian Wind Industry – 2018)

4.2 Preliminary consultation

4.2.1 Local community

Table 4-2 summarises the preliminary consultation undertaken with the local community during the scoping phase.

Initial engagement focused on consultation with potential host landholders to identify land that may be suitable for hosting wind turbine generators and other infrastructure. There are four host landholders, and consultation with these landholders informed the delineation of the Subject Land illustrated in Figure 2-1. Initial engagement also included a wind farm tour so that potential host landholders could better understand the potential impacts and benefits of the Proposal.

The neighbour stakeholder group includes all landholders with dwellings within 9km of the Subject Land. A 9km boundary was selected to include a number of dwellings that were just outside the 8km range. A combination of desktop mapping and preliminary ground-truthing has been used to identify twelve neighbours with residential dwellings within 9km of the Subject Land. Of these twelve neighbours, eleven were contacted by phone, with face-to-face meetings held with nine neighbours to discuss the Proposal. The remaining neighbours preferred to receive information via email or post. Two neighbours also attended the community drop-in sessions. Three face-to-face meetings were held with neighbours outside the 9km zone.

Drop-in sessions were also held in the nearby townships of Balranald (15km north of Subject Land) and Kyalite (10km south-west of Subject Land). The following communication channels were used to notify the community of the drop-in session:

- phone calls and emails to personally notify key stakeholders (neighbours, councils and representatives from key interest groups);
- posts on Balranald Shire Council Facebook Page (2700 followers) and Balranald Link Facebook Page (3300 followers);
- flyers at Kyalite Pub / Store, Balranald Bakery, Moulamein Business Centre and Balranald Council reception;
- articles in local publications (Balranald Shire newsletter and the Orange Frog) and commercial media (Riverine Grazier and The Guardian);
- interview on local ABC radio; and
- post on Windlab corporate website.

Information on the Proposal and the development assessment process was provided at the drop-in sessions. The indicative layout presented in Figure 2-7 was also available for the public to view. Based on feedback from initial engagement, additional information on the construction and operation of a wind farm was also presented at the drop-in sessions. Sixteen people attended the drop-in sessions, which was comparable to attendance at other similar forums in the area. However, COVID-19 concerns may have also impact attendance and follow up sessions are planned. Alternative online and other innovative options that meet the needs of the community are also being investigated.

Information on Windlab and the Proposal, including contact details for further information, has been provided through a variety of different communication channels. These are summarised in
Table 4-3.

Table 4-2 Summary of preliminary consultation with the local community

Stakeholder Group	Consultation
Associated (host) landholders	34 face-to-face meetings, 43 phone conversations Windfarm tour with host landholder group in Jan 2021
Neighbours (within 9km)	9 face-to-face meetings, 29 phone conversations, 8 emails, 14 text messages, 3 letters (by post) Flyer with project overview and contact details provided either in person or by post where a face-to-face meeting was not desired
Wider community	3 face-to-face meetings with neighbours outside 9km Drop-in session at Balranald on 21 Jul 2021 (3pm-7pm) Drop-in session at Kyalite on 22 Jul 2021 (9am-1pm) 16 people attended (12 Balranald, 4 Kyalite) 1 phone call, 4 emails or text messages from people unable to attend drop-in sessions
Local businesses	30 face-to-face visits to shop fronts and service outlets in Balranald and Kyalite Flyer with project overview and contact details provided
Community groups	Introductory meetings (either face to face or phone) with representatives from: • Kyalite Progress Association • Growing Business, Industry and Tourism Advisory Committee (GBITAC) • Balranald Inc • Orange Frog • Southern Cross Exhibition

Table 4-3 Communication channels utilised for preliminary consultation

Communication channel	Consultation
Flyers with information on Windlab, the Proposal and contact details	Hard copies available at: • Kyalite Pub / Store • Balranald Bakery • Balranald Elders • Moulamein Business Centre • Balranald Council reception Also distributed to neighbours and local businesses
Local publications	3 articles on the Proposal featured in: • The Orange Frog, a community run newsletter distributed to 720 households (500 Balranald, 220 Euston); 7 July 2021 and 21 July 2021 • Balranald Council Newsletter (June-July 2021)
Commercial media	2 articles on the Proposal featured in: • Riverine Grazier; 23 June 2021 • The Guardian; 25 June 2021 Plus 1 interview on local ABC radio
Values survey	Available electronically on website and hardcopy at: • Moulamein Business Centre • Balranald Shire Offices • Kyalite Pub / Store 30 surveys completed to 15 September 2021
Project page on Windlab website	www.windlab.com/our-projects/burrawong-wind-farm/ 540 unique views 1 phone enquiry, 1 email enquiry, 1 media enquiry

4.2.2 Government stakeholders

Table 4-4 summarises the preliminary consultation undertaken with government stakeholders during the scoping phase.

Table 4-4 Summary of preliminary consultation with government stakeholders

Stakeholder	Consultation
NSW Government – Department of Planning, Industry and Environment (DPIE)	Video conference with Energy Assessment Team on 8 June 2021 Video conference with Energy Infrastructure and Zones Team on 9 June 2021
Murray River Council	Video conference with Director of Planning on 24 Aug 2020, follow up video conference on 5 May 2021 Presentation to Councillors and Executive on 22 June 2021
Balranald Shire Council	Fact-to-face meeting to introduce the Proposal to Director of Infrastructure and acting CEO on 29 July 2020 Face-to-face meetings to provide updates to CEO on 12 May 2021 and 23 June 2021. Presentation to Administrator (via video conference) on 21 July 2021
Local member – state Helen Dalton	Face to face meeting to introduce the Proposal on 3 June 2021 Information slide pack was also provided.
Local member – federal Sussan Ley	Letter to introduce the Proposal sent on 6 July 2021 with an invitation for a face-to-face meeting. Information slide pack was also provided.

4.2.3 Other key stakeholders

As the Network Service Provider (NSP) for the project, the following preliminary engagement has been undertaken with TransGrid:

- Preliminary Connection Enquiry response received on 16 July 2020
- Connection Enquiry for Energy Connect was submitted on 2 June 2021. TransGrid advised that this will be processed once it confirms its Connection Enquiry Response protocol for Energy Connect.

Windlab will continue to engage with TransGrid and the Energy Infrastructure and Zones team at DPIE during the EIS phase to progress the grid connection for the Proposal.

Consultation will commence with Indigenous communities, referral agencies and resource licence holders at the start of the EIS phase. Consultation with Indigenous communities will be undertaken in accordance with the requirements of the Aboriginal Cultural Heritage Consultation Requirements for Proponents (DECCW 2010).

Airstrip Owners

The two private airstrips within the Subject Land are located on property owned by an associated (host) landholder. After consultation to understand how this airstrip is used, the layout was revised to remove turbines from the airstrip take-off and approach.

The remaining five airstrips within the study area are on neighbouring properties, and output of preliminary consultation is summarised below:

- No initial concerns raised by the owner of the airstrip to the south-west and nearest the Subject Land. The airstrip is in a degraded condition and had not been used for approximately 4 years. This airstrip was primarily used by light aircraft for aerial spraying.
- No initial concerns raised by the owner of the airstrip directly west of the Subject Land. The airstrip is primarily used for by light aircraft for recreational flying.
- The airstrip to the north-east of the Subject Land is located within the Yanga National Park. A meeting with National Parks and Wildlife Services has been scheduled for early December 2021 to discuss this and other matters related to the Proposal.
- Windlab has been unable to contact the owner of the remaining two airstrips to the south of the Subject Land (south of Kyalite Road). However, information on the Proposal has been provided to the landholder via post.

The layout will be further revised with input from specialists and potentially affected airstrip users as part of the detailed aviation studies undertaken during the EIS phase.

4.2.4 Key issues raised

At this early stage, the response from the community has been positive. The community has a good understanding of renewable energy projects from experience with the nearby solar farms, and wind farms in western Victoria. Many people made comparisons to the solar farms, mineral sand projects and other agricultural projects in the area, and the positive benefits for the local community from these projects. Many neighbours also expressed an interest in hosting wind turbines on their properties. A summary of the main concerns raised from conversations with neighbours and the community is provided in Table 4-5.

The response from both the Murray River Council and Balranald Council has also been positive, with the exception of one Murray River Councillor. Key issues raised were pressure on housing availability, traffic impacts and road maintenance, land use conflicts and cumulative impacts.

Table 4-5 Key issues raised during preliminary consultation

Area of concern	Description of concern	Windlab response
Over selling and under delivering on local benefits	Raised as a key concern by most stakeholders.	Specialist assessment will be undertaken as part of the Social Impact Assessment (SIA) for the EIS. Windlab will work with the community to co-design a benefit sharing scheme that meets the needs of the community. Initial engagement with the community has already commenced.
Noise amenity	Raised as a key concern by neighbours, comparisons made to noise levels from frost fans used in agriculture. Also raised as a concern by DPIE at Scoping Meeting.	Specialist assessment will be undertaken as part of the EIS, and results will be shared with all relevant stakeholders. Specialist assessment will also be undertaken as part of the SIA for the EIS. Based on the results of the assessment, turbine siting and distance to receptors will be reviewed. Windlab will also consider options to eliminate, reduce or otherwise manage impacts in consultation with those most affected.
Visual amenity	Raised as a key concern by neighbours, primary concern is distance to nearest turbine. Also raised as a key concern by DPIE at Scoping Meeting due to flat terrain and scale of Proposal.	Specialist assessment will be undertaken as part of the EIS, and results will be shared with all relevant stakeholders. Photo montages will also be provided to nearby neighbours. Detailed specialist assessment will also be undertaken as part of the SIA for the EIS. Based on the results of the assessment, turbine siting and distance to receptors will be reviewed. Windlab will also consider options to eliminate, reduce or otherwise manage impacts in consultation with those most affected.

Area of concern	Description of concern	Windlab response
Housing availability	Raised as a key concern by local industry and council.	Detailed specialist assessment will be undertaken as part of the SIA for the EIS. Windlab will explore using the existing accommodation facilities in Balranald and other options in Kyalite and the surrounding region.
Traffic and road maintenance	Raised as a concern by neighbours and local council	Specialist assessment will be undertaken as part of the EIS. Detailed specialist assessment will also be undertaken as part of the SIA for the EIS. Windlab will also consider options to eliminate, reduce or otherwise manage impacts in consultation with all relevant stakeholders.
Recreational and agricultural aviation	Raised as a concern by neighbours and local council	Specialist assessment will be undertaken as part of the EIS. Windlab will also consider options to eliminate, reduce or otherwise manage impacts in consultation with all relevant stakeholders.
Availability of power	Raised as a concern by local business and council, main concern is that despite hosting renewable energy projects, there is limited access to cheap, clean and reliable electricity in the area.	Windlab will work with the community and local network service providers to further understand this concern and determine if the construction of the project can assist with improving cost, security and reliability of supply for local stakeholders.

Area of concern	Description of concern	Windlab response
Land use conflict	Raised as a concern by local council and DPIE	Specialist assessment will be undertaken as part of the EIS, including a Land Use Conflict Risk Assessment. Minimal impact to existing agricultural activities (broad scale cropping and grazing) is anticipated once the Proposal is in Operations. Windlab clarified that final footprint of the development will only be approximately 300ha, compared to the study area which is approximately 15,500ha.
Grid constraints and project feasibility	Raised as a concern by most stakeholders. There is general awareness in the community of gird constraints encountered by the solar farms, and some scepticism about the feasibility of the Proposal.	Windlab provided additional information on grid connection options for the Proposal. Windlab also shared wind measurement data to show that the wind and solar generation profiles in the region are complementary.

Other less common concerns (raised by only 1 or 2 people) include the battery safety and health impacts.

4.2.5 Community values survey

A community values survey has been used as an additional tool to gather feedback from the local community. The survey was made available online and as a hardcopy, with 30 surveys completed to 15 September 2021. The results of the survey were used by Moir Landscape Architects as an input for the Preliminary Visual Impact Assessment. The key aspects covered in the survey include identifying:

- public viewpoints valued by the community
- key landscape features valued by the community
- areas of scenic quality valued by the community
- potential benefits and concerns with the Proposal
- local community activities and initiatives.

The Preliminary Visual Impact Assessment incorporates data from the 20 surveys received to 1 July 2021. Figure 4-2 to Figure 4-4 incorporated additional data from the surveys received to 15 September 2021.

In response to a question on what people value most about their local area, 63% of respondents identified farming, followed by community and family (57%) and employment opportunities (40%), refer to Figure 4-2. 73% of respondents identified clean energy as a

positive benefit of the Proposal, followed by 63% identifying the potential investment in the local community, refer to Figure 4-3.

Based on the current understanding of the Proposal, the main concerns raised are noise (40%), effects on flora and fauna (33%) and effects on land use (30%). 30% of respondents identified as having no concerns about the Proposal, refer Figure 4-4.

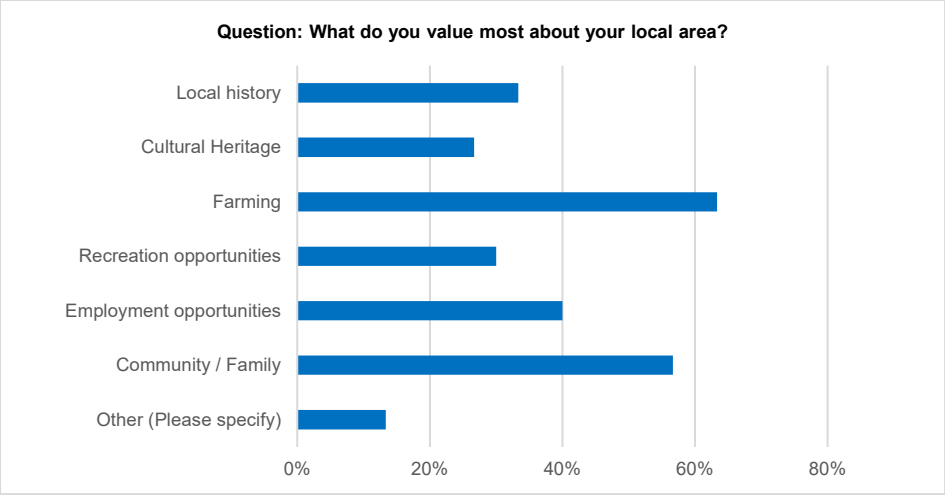

Figure 4-2 Survey response data

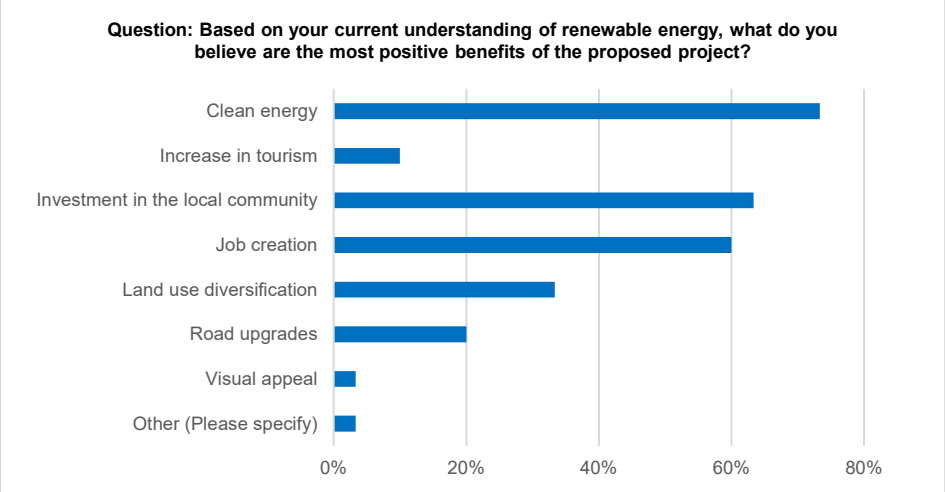

Figure 4-3 Survey response data

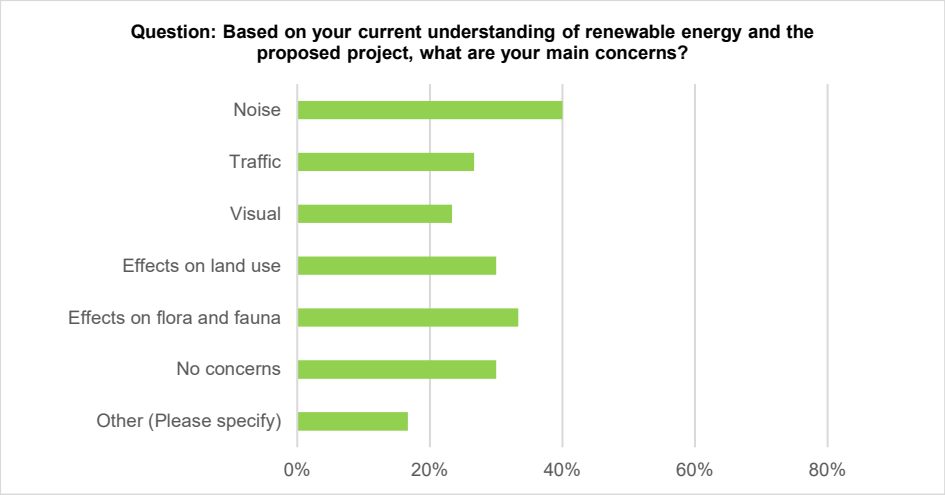

Figure 4-4 Survey response data

4.3 Ongoing consultation

Stakeholder identification and extent of interest

A combination of desktop review, media analysis and preliminary consultation was used to identify key stakeholders with an interest in the Proposal. During the EIS phase, ongoing media analysis and consultation will be used to continue to identify interested stakeholders.

The likely geographic extent of interest in the Proposal has been defined as follows:

- **Local: less than 15km from the site**

  15km was selected as there is likely to be a high level of interest from communities in the nearby townships of Balranald (15km from site) and Kyalite (10km from site).
- **Regional: 15-150km from the site**

  15-150km was selected as there is likely to be interest from communities in this area as a result of other related projects and initiatives such as Energy Connect and the South-West REZ. This area includes the major regional townships of Hay, Deniliquin and Buronga, and has been extended to also include Moama.
- **State: greater than 150km from the site**

  There is likely to be some interest from other communities and stakeholders across the state as the electricity sector in NSW undergoes significant transformation.

The location data from the community values survey was also used to assess the geographic extent of community interest to date. 79% of respondents to date have been from the local area, 14% from the regional area and 7% from other parts of the state.

Stakeholder engagement during the EIS phase

Windlab's core engagement commitments and objectives during the EIS phase are:

- to 'inform', 'consult' and 'involve' all stakeholders in the development of the Proposal

- to ‘collaborate’ with key local stakeholders on the co-design of a benefit sharing scheme for the Proposal.

Table 4-6 describes the key actions that will be undertaken during the EIS, and maps these to the IAP2 engagement levels. Table 4-7 outlines specific actions that align with the community participation objectives outlined in the *Undertaking Engagement Guidelines for State Significant Projects.*

The planned actions have been informed by preliminary consultation and will be regularly reviewed and updated to ensure that consultation meets the needs and wants of the community and other key stakeholders. These may change as the development of the Proposal progresses and more detailed information becomes available.

Engagement and consultation will continue throughout the exhibition, assessment, construction and operation phases of the Proposal.

Table 4-6 Summary of key actions that will be carried out as part of ongoing engagement during the EIS

Stakeholder Groups	**Inform** Planned activities and tools to keep the community and other key stakeholders informed about the project	**Consult** Planned activities and tools to obtain feedback from the community and other key stakeholder on the project	**Involve** Planned activities and tools to engage community and other key stakeholder on the assessment of key matters	**Collaborate** Planned activities and tools to build partnerships with community and other key stakeholders
Associated landholders, host and neighbour	One-on-one discussions Information packs and fact sheets, tailored to specific needs and interests of landholders	One-on-one discussions Group meetings with other associated landholders	One-on-one discussions Group meetings with other associated landholders	Focus groups and workshop to co-design benefit sharing scheme
Neighbours with dwellings within 9km of turbine locations	One-on-one discussions Information packs and fact sheets, targeted to specific needs and interests of neighbours	One-on-one discussions	One-on-one discussions	Focus groups and workshop to co-design benefit sharing scheme
Traditional custodians	Targeted meetings (one-on-one or group) Information packs and fact sheets, targeted to specific needs and interests Consultation in accordance with *Aboriginal cultural heritage consultation requirements for proponents 2010*	Targeted meetings (one-on-one or group) Consultation in accordance with *Aboriginal cultural heritage consultation requirements for proponents 2010*	Targeted meetings (one-on-one or group) Consultation in accordance with *Aboriginal cultural heritage consultation requirements for proponents 2010*	Cultural awareness training.

Stakeholder Groups	**Inform** Planned activities and tools to keep the community and other key stakeholders informed about the project	**Consult** Planned activities and tools to obtain feedback from the community and other key stakeholder on the project	**Involve** Planned activities and tools to engage community and other key stakeholder on the assessment of key matters	**Collaborate** Planned activities and tools to build partnerships with community and other key stakeholders
Local community	Project website Direct letter drops / mail outs Information packs and fact sheets (including FAQ), available online and as hardcopy Articles and notifications in local publications and newsletters; in local media; and on local social media channels In person (meetings, briefings, presentations, drop-in sessions, community events) Project newsletter (if wanted by the community)	Dedicated project contact details (phone and email) Feedback form and values survey, available online and as hardcopy In person (briefings, presentations, drop-in sessions, community events) Staffed shop front or place based equivalent (if wanted by the community) Enquiry and complaints management process	Dedicated project contact details (phone and email) Feedback form and values survey, available online and as hardcopy In person (briefings, presentations, drop-in sessions, community events) Staffed shop front or place based equivalent (if wanted by the community) Community consultative committee (CCC) Targeted meetings on detailed assessment of key matters (such as with airstrip owners and users)	Focus groups and workshop to co-design benefit sharing scheme Explore opportunity for education initiatives with local schools and young people / youth council
Community organisations and interest groups	As for local community	As for local community	As for local community Targeted meetings on detailed assessment of key matters (such as the Rural Fire Service).	As for local community

Stakeholder Groups	**Inform** Planned activities and tools to keep the community and other key stakeholders informed about the project	**Consult** Planned activities and tools to obtain feedback from the community and other key stakeholder on the project	**Involve** Planned activities and tools to engage community and other key stakeholder on the assessment of key matters	**Collaborate** Planned activities and tools to build partnerships with community and other key stakeholders
Local business and industry	As for local community	As for local community	As for local community	As for local community
Local government	Regular project updates and briefings Information packs and fact sheets, including dedicated project contact details	Regular project updates and briefings	Regular project updates and briefings Community consultative committee (CCC)	
State and federal government, and elected representatives	Regular project updates and briefings	Regular project updates and briefings	Regular project updates and briefings	
Network and other service provider	Regular project updates and briefings	Regular project updates and briefings	Regular project updates and briefings	
Resource licence holders	Project updates and briefings as required	Project updates and briefings as required	Project updates and briefings as required	

Table 4-7 Specific actions that align with DPIE community participation objectives

Objective	Specific actions that will be undertaken to ensure alignment with objective	How effectiveness will be monitored, reviewed and adapted over time
Open and Inclusive	Identify all affected and/or interested stakeholders and understand communication preferences. Use a variety of different communication channels to ensure all stakeholders have access to relevant project information and notifications.	Feedback from the community and other key stakeholders. Communication channels used during preliminary consultation are outlined in Table 4-3. Feedback from preliminary consultation was that use of existing and trusted community channels is preferred.
Easy to Access	Be available at times and places, and in ways that work for the community and other stakeholders. Adapt communication material to meet the needs of stakeholders, including culturally and linguistically diverse stakeholders.	Attendance and participation. Feedback from the community and other key stakeholders.
Relevant	Gather a wide range of views from across all demographics to identify community and environmental values, project opportunities and constraints, and social impacts.	Feedback received from a wide range of demographics.
Timely	Provide regular project updates. Continue engagement throughout the exhibition, assessment, construction and operation phases of the Proposal.	Feedback from the community and other key stakeholders.
Meaningful	Accurately capture people's views, concerns and suggestions. Give proper consideration to and respectfully respond to people's concerns and suggestions. Co-design a benefit sharing scheme that responds to the needs and wants of the community.	Feedback from the community and other key stakeholders.

5. Planning Context

This section sets out the environmental planning context of the Proposal. Relevant provisions are noted that will affect the planning and assessment of the Proposal.

5.1 Key NSW legislation

5.1.1 Environmental Planning and Assessment Act 1979 (EP&A Act)

Development in NSW is subject to the requirements of the *Environmental Planning & Assessment Act 1979* (EP&A Act) and its associated regulations. Environmental planning instruments prepared pursuant to the Act set the framework for approvals under the Act.

The EP&A Act includes the following objectives:

- Encourage:
  - The proper management, development and conservation of natural resources for the purpose of promoting the social and economic welfare of the community and a better environment
  - The provision of land for public purposes
  - The protection of the environment, including the protection and conservation of native animals and plants, including threatened species, populations and ecological communities and their habitats
  - Ecologically sustainable development

The Proposal will be assessed under Part 4.2 of the EP&A Act.

Section 4.12(8) of the EP&A Act requires State Significant Development (SSD) applications to be accompanied by an EIS, prepared in accordance with the EP&A Regulation.

Section 4.42 of the EP&A Act lists authorisations which must be consistently applied to SSD projects that are authorised by a development consent.

For the Project, Section 4.42 approvals will be confirmed in the EIS however are likely to require:

- Environment Protection Licence under the *Protection of the Environment Operations Act 1997*
- Work in or over a public road approval under the *Roads Act 1993*
- Approval for works over Crown Land under the *Crowns Land Management Act 2016*.

5.1.2 State Environmental Planning Policy (State and Regional Development) 2011

Clause 20 of Schedule 1 of *State Environmental Planning Policy (State and Regional Development) 2011* (SRD SEPP) states that the following is considered a State Significant Development (SSD):

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.*

The Proposal will have a capital investment cost of more than $30 million. Therefore, the Proposal is classified as SSD under Part 4 of the EP&A Act.

SSD are major projects which require approval from the Minister for Planning. While the Minister for Planning is the consent authority for SSD, the Minister may delegate the consent authority function to the Independent Planning Commission NSW (IPCN), the Secretary or to any other public authority.

If substantial numbers of submissions are received to the EIS, the Proposal may be determined by the IPCN, with reference to the DPIE Determination Report.

5.1.3 State Environmental Planning Policy (Infrastructure) 2007

Clause 34(1)b of *State Environmental Planning Policy (Infrastructure) 2007* (ISEPP) provides that development for the purpose of electricity generating works may be carried out by any person with consent on any land in a prescribed rural, industrial or special use zone.

Relevant to the Proposal, prescribed rural, industrial or special use zones are defined to include land zoned as RU1 – primary production. No part of the Proposal would be located on E1 land – (National Parks and Nature Reserves), which is not included in the prescribed zones.

5.1.4 Electricity Infrastructure Investment Act 2020 NSW

The NSW Electricity Infrastructure Investment Act 2020 (NSW Government, 2020) aims to:

- Improve the affordability, reliability, security and sustainability of electricity supply, and
- Co-ordinate investment in new generation, storage, network and related infrastructure, and
- Encourage investment in new generation, storage, network and related infrastructure by reducing risk for investors, and
- Foster local community support for investment in new generation, storage, network and related infrastructure, and
- Support economic development and manufacturing, and
- Create employment, including employment for Aboriginal and Torres Strait Islander people, and
- Invest in education and training, and
- Promote local industry, manufacturing and jobs, and
- Promote export opportunities for generation, storage and network technology.

The Proposal falls within a proposed Renewable Energy Zone (as set out by the NSW Government's Transmission Infrastructure Strategy, Electricity Infrastructure Roadmap and is supported by the Electricity Infrastructure Investment Act 2020). With its advantageous site characteristics, the Proposal has the potential to deliver cheap, clean and reliable energy for New South Wales consumers, while generating significant investment in the Murray River and Balranald regions.

5.2 Local Government

5.2.1 Wakool Local Environmental Plan 2010

The Subject Land is mostly located within the Murray River Council LGA to which the provisions of the *Wakool Local Environmental Plan 2010* apply. The Subject Land borders E1 – National Parks and Nature Reserves at its top norther corner, and south western border. The Proposal is located on land zoned RU1 – Primary Production. The objectives of this zone are as follows.

RU1 – Primary Production

- To encourage sustainable primary industry production by maintaining and enhancing the natural resource base
- To encourage diversity in primary industry enterprises and systems appropriate for the area.
- To minimise the fragmentation and alienation of resource lands
- To minimise conflict between land uses within this zone and land uses within adjoining zones
- To promote the use of agricultural land for efficient and effective agricultural production without the encroachment of urban land uses
- To allow the development of processing, service and value-adding industries related to agriculture and primary industry production
- To allow the development of complementary non-agricultural land uses that are compatible with the character of the zone.

Clearing and excavation will be required for a network of turbine footings, hardstand areas, access tracks and substation(s) and control buildings. Having a dispersed and small overall impact footprint in comparison to the land available for agriculture within the Subject Land, allowing for mixed agricultural activities concurrent with wind farm operation and being highly reversible at the end of the project's life, the Proposal is considered compatible with this land zoning.

5.2.2 Balranald Local Environmental Plan 2010

The Subject Land is immediately adjacent to the Balranald LGA to which the provisions of the *Balranald Local Environmental Plan 2010* apply. The Subject Land borders E1 – National Parks and Nature Reserves at top norther corner, and RU1 – Primary Production to the southwest. The objectives of this zone are as follows.

RU1 – Primary Production

- To encourage sustainable primary industry production by maintaining and enhancing the natural resource base.
- To encourage diversity in primary industry enterprises and systems appropriate for the area.
- To minimise the fragmentation and alienation of resource lands.
- To minimise conflict between land uses within this zone and land uses within adjoining zones.

- To encourage development that is in accordance with sound management and land capability practices, and that takes into account the environmental sensitivity and biodiversity of the locality.
- To support rural communities.
- To ensure the provision of accommodation for itinerant workers.

No development will occur within the Balranald LGA however works are near to this LGA boundary (across Yanga Way). Indirect impacts are discussed in Section 6 however impacts are expected to be highly reversible at the end of the project's life, and as such the proposal is considered compatible with this land zoning.

5.3 Commonwealth Legislation

5.3.1 Environmental Protection and Biodiversity Conservation Act 1999

The *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) is administered by the Commonwealth Department of Agriculture, Water and Environment (DAWE). Under the EPBC Act, if the Minister determines that an action is a 'controlled action' which would have or is likely to have a significant impact on a Matter of National Environmental Significance (MNES) or Commonwealth land, then the action may not be undertaken without prior approval of the Minister.

The EPBC Act identifies the following nine MNES:

- World Heritage properties
- National heritage places
- Ramsar wetlands of international significance
- Threatened species and ecological communities
- Migratory species
- Commonwealth marine areas
- The Great Barrier Reef Marine Park
- Nuclear actions (including uranium mining)
- Water resources (in relation to coal seam gas development and large coal mining development).

When a person proposes to take an action, which may be a 'controlled action' under the EPBC Act, they must refer the Proposal to the DAWE for a decision about whether the proposed action is a 'controlled action'.

A search of the EPBC Act Protected Matters Search Tool with a 10km buffer indicates that there are no World Heritage or National Heritage areas or items within the Subject Land. A summary of the EPBC Act search report is provided in Table 5-1.

Table 5-1 Summary of EPBC Act Protected Matters Report search results

Protected Matters	Entities within the search area
World Heritage Properties	0
National Heritage Places	0

Protected Matters	Entities within the search area
Wetlands of International Significance (Ramsar)	4
Threatened Ecological Communities	3
Threatened Species	26
Migratory Species	10
Listed Marine Species	15
Commonwealth land	2
Commonwealth Heritage places	0
Critical habitats	0
Commonwealth reserves (terrestrial)	0
State and Territory reserves	3
Regional Forest Agreements	0
Invasive species	26
Nationally Important Wetlands	1

The proposed development is not likely to impact Commonwealth land. Section 6.2.3 discusses the results of searches in relation to threatened species, ecological communities and migratory species.

Surveys to determine the presence and likelihood of impact to these entities would be undertaken during the preparation of the EIS. Four important wetlands are indicated in the search as their tributaries are location within 10km of the Proposal, but the wetlands themselves are between 50 and 400km upstream of the Proposal.

At this stage, given the nature and scale of the Proposal, an EPBC referral on the basis of a potential to significantly impact Commonwealth listed birds and bats is considered likely and a referral will be submitted early in the detailed assessment stage. On this basis, recognition of the need to address Commonwealth matters is sought in the SEARs.

5.3.2 Native Title Act 1993

The *Native Title Act 1993* provides a legislative framework for the recognition and protection of common law native title rights. Native title is the recognition by Australian law that Indigenous people had a system of law and ownership of their lands before European settlement. Where that traditional connection to land and waters has been maintained and where government acts have not removed it, the law recognises this as native title.

A search of the National Native Title Tribunal website (Appendix A) indicates no native title claims, land use agreements, applications or determinations within the Development Site.

6. Preliminary environmental assessment

6.1 Methodology

A preliminary environmental risk assessment has been completed to assist in the identification of key environmental matters that would require detailed assessment within the EIS.

The assessment is based on the Proponent's experience in wind farm development, a desktop review and preliminary site inspection (involving limited flora and fauna surveys and photography to inform landscape character assessment) to identify potential high-level constraints and major risks to the Proposal. This will be used to guide further detailed investigations and ultimately to define the development corridor, within which the site infrastructure will be sited.

The following was included in the preliminary environmental risk analysis:

1. Investigation of the planning pathway and relevant legislation that may impact the project.
2. Desktop review, including database searches relating to:
    - Threatened flora and fauna species and ecological communities
    - EPBC Act Protected Matters Reporting Tool
    - Aboriginal heritage
    - Land use / nearby receivers
    - Key fish habitat
    - Historic heritage
    - Soil and landscape capability mapping
    - Soil landscapes
3. Land Category Assessment was prepared by NGH Pty Ltd (NGH) to determine whether Category 1 – Exempt Land is located within the Subject Land. Category 1 – Exempt Land can be excluded from most aspects of the biodiversity assessment, under the BC Act Biodiversity Assessment Method (BAM).
4. Field inspection. A Senior Ecologist and Ecologist inspected the site over two days between 8-9 December 2020. The inspection was undertaken to validate the biodiversity desktop information and obtain information on the level of site disturbance, to inform heritage and other environmental assessments.
5. A specialist landscape and visual impact consultant, Moir Landscape Architecture, was engaged to undertake a Preliminary Landscape and Visual Impact Assessment, including photography to inform landscape character assessment.
6. A Preliminary Noise Impact Assessment.
7. A SIA scoping and initial assessment to gain an initial understanding of the Proposal's social locality, characteristics of the community, likely social impacts and consideration of response to likely social impacts (Appendix D).

From this analysis, some environmental matters were deemed to be key issues on the basis that they had the potential, without suitable mitigation, to have a significant impact on the environment.

A summary of the key environmental issues is provided in Section 6.2. These are expected to require detailed assessment. Of these key environmental issues, areas of high constraint that will be targeted for detailed assessment include:

- Visual Amenity

- Noise Amenity
- Biodiversity
- Aboriginal Heritage.

To guide further investigation and preliminary planning, Section 7 maps these areas of high constraint on a precautionary basis and sets out the way forward for investigating and responding to them further.

Areas of moderate constraint that will be subject to detailed assessment include:

- Traffic Impacts
- Aviation
- Telecommunications
- Social Impacts
- Cumulative Impacts.

The potential impacts and management of other (less substantive) issues are discussed in Section 6.3. These would be subject to standard assessment. These include:

- Soils and contaminated land (soil surveys may be undertaken to inform this component)
- Hydrology and groundwater
- Air quality
- Hazard and risk
- Waste management
- Land use compatibility
- Historic heritage (onsite inspection may be undertaken to inform this component)

SSD Scoping Report summary table

Systematically summarising this categorisation of 'key' and 'other' issues in accordance with the SSD Scoping Report Guidelines, is the scoping summary table in Appendix E. This table summarises the scale of impact, nature of impact and sensitivity of the receiving environment for the environmental issues detailed in Section 6.2 and Section 6.3. The scoping summary table clarifies the level of assessment required for each matter as the proposal moves into the EIS phase. It also identifies whether a cumulative impact assessment (CIA) is required, the type of engagement required, relevant government plans, policies and guidelines and a cross-reference to where the matter is addressed in the scoping report.

6.2 Assessment of key issues

6.2.1 Visual amenity

Introduction

Moir Landscape Architecture was commissioned by Windlab to undertake a Preliminary Landscape and Visual Impact Assessment (PVIA) for the Proposal. The PVIA has been prepared in accordance with the NSW Wind Energy: Visual Assessment Bulletin (DPE) 2016. The PVIA is provided in Appendix B with a summary below.

Methodology

Consistent with the Visual Assessment Bulletin, the Study Area for the PVIA is generally defined as the land up to 8,000m from the nearest turbine. However, in response to the feedback received at the Scoping Meeting held with DPIE on 8 June 2021, the Study Area has been extended beyond this to include the townships of Balranald and Kyalite.

Desktop Assessment

A desktop assessment was undertaken using the preliminary turbine layout presented in Figure 2-7. To assess the worst-case scenario with highest visual impact, a tip height of 300m was used. The desktop assessment includes:

- Application of Preliminary Assessment Tools to determine receptors with potential sensitivity.
- Preparation of a preliminary Zone of Visual Influence (ZVI) to establish a theoretical zone of visibility of the Proposal.
- Identification of key viewpoints and landscape features using available mapping and background documents.

Site inspection

Photographic survey work for the assessment was undertaken in January 2021 to carry out a preliminary assessment of the existing landscape character from publicly accessible land within the Study Area. The findings of the site inspection have been included in the PVIA and will form the basis for discussion with the community in the EIS phase.

Community consultation

Community consultation has been undertaken through the scoping phase. Targeted consultation to identify community and landscape values included face-to-face meetings with nearby neighbours, drop-in sessions at Balranald and Kyalite, and a values survey which was available online and as a hardcopy (see Section 4). Results of the community consultation documented in previous studies have also been utilised to gain perspective on the landscape values held by the community to inform the PVIA. Community consultation will continue through the EIS phase.

The PVIA assessment also includes recommendations for further assessment to be undertaken as part of the EIS phase.

Preliminary assessment

Preliminary assessment tools

The purpose of the Preliminary Assessment Tools in the PVIA is to identify sensitive receptors for further assessment and justification in the EIS phase. Further assessment may identify factors such as visual screening from existing vegetation and topography, which may minimise the impacts. For a tip height of 300m, the visual magnitude thresholds based on the Visual Assessment Bulletin are 4000m (black line in Figure 6-1) and 5900m (blue line in Figure 6-1).

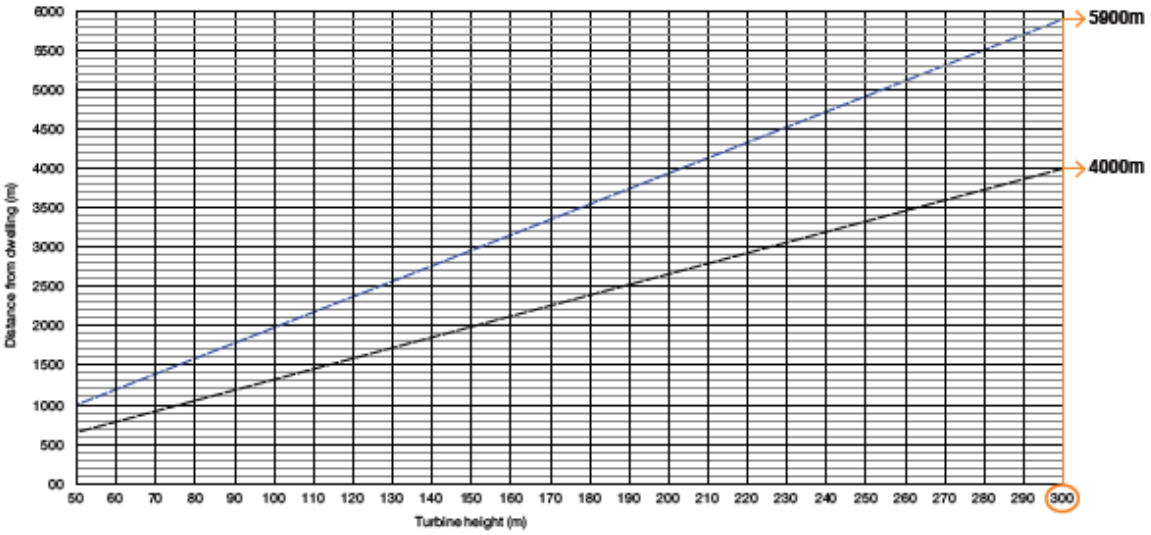

Figure 6-1 Visual magnitude thresholds for visual assessment (from NSW Wind Energy: Visual Assessment Bulletin 2016)

The Visual Magnitude Tool identified a total of three (3) non-involved dwellings within the black line of visual magnitude (4,000m) and one (1) non-involved dwelling within the blue line of visual magnitude (4,000-5,900m), which are shown in Figure 6-2. See Appendix B for the full preliminary visual magnitude assessment.

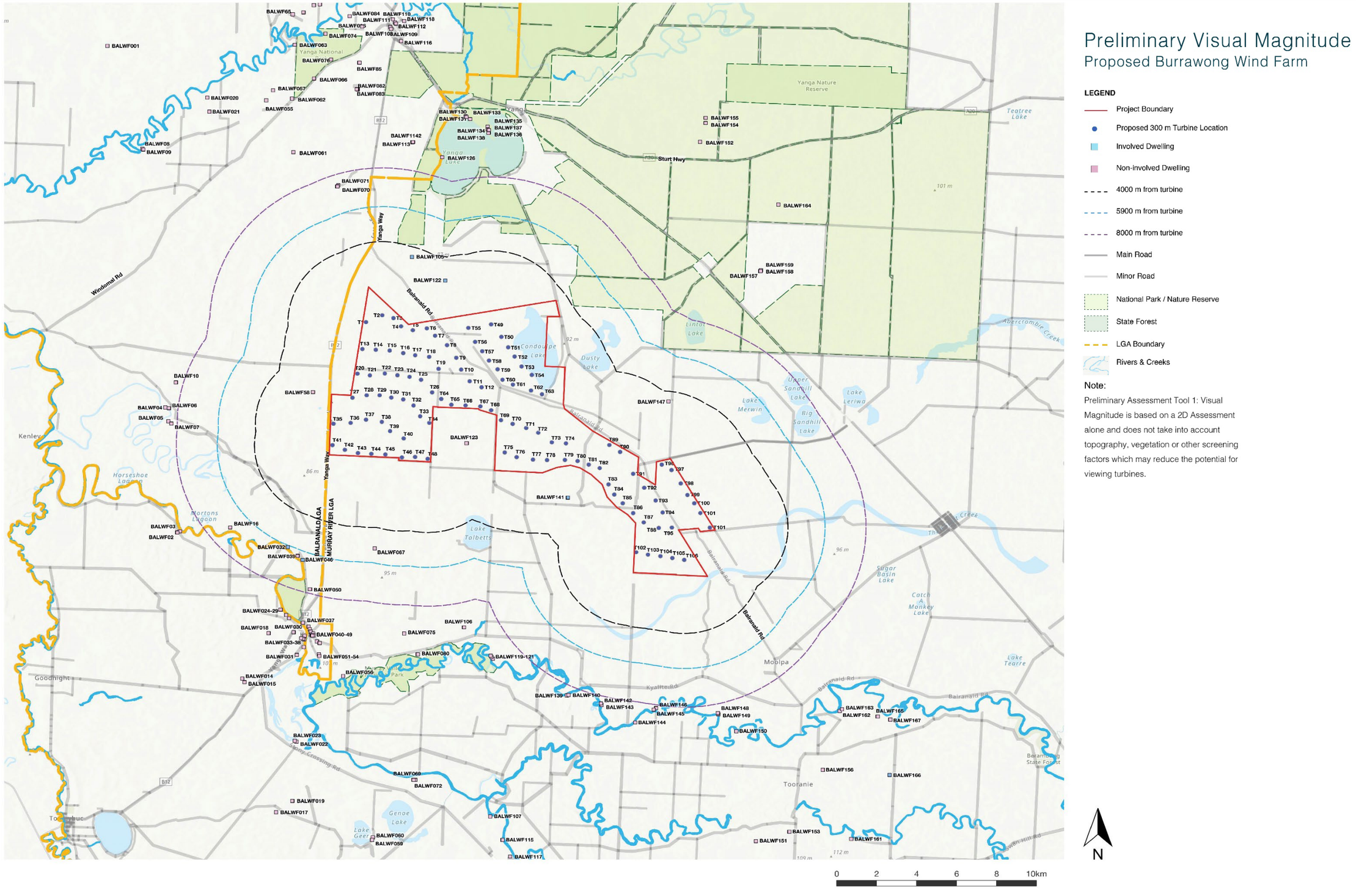

Figure 6-2 Preliminary visual magnitude assessment

The Multiple Wind Turbine Tool (MWTT) was applied to all dwellings within 8000m of the nearest proposed turbine (as seen in Figure 6-3). The MWTT identified three (3) dwellings with turbines in more than two (2) 60 degree sectors. See Appendix C for the full multiple wind turbine tool assessment. Table 6-1 provides an overview of the results from the preliminary assessment tools.

Table 6-1 Overview of Preliminary Assessment for residences within 5900 metres

Non-involved residences within 4000 metres of nearest WTG (Black Line of Visual Magnitude)					
Dwelling ID:	**Location**	**Approximate distance to nearest WTG (kms)**	**Nearest WTG**	**Number of 60° sectors (Based on 2D Assessment)**	**Approx. number of potentially visible WTGs (Based on ZVI)**
Non-involved:					
BALWF058	***Mallee Highway***	**2.218km**	**T35**	**3**	**107**
	Views likely to be available of all proposed turbines to the east. Scattered vegetation is expected to fragment views.				
BALWF123	***Arundel Road***	**1.990km**	**T75**	**4**	**107**
	Views likely to be available of all proposed turbines to the west, north and east. Wind break planting surrounding the dwelling vegetation is expected to screen views.				
BALWF147	***Big Sandhill Road***	**3.360km**	**T96**	**3**	**107**
	Views likely to be available of all proposed turbines to the south-west. Scattered vegetation is likely to fragment views.				
Non-involved residences within 4000 - 5900 metres of nearest WTG (Blue Line of Visual Magnitude)					
Dwelling ID:	**Location**	**Approximate distance to nearest WTG (kms)**	**Nearest WTG**	**Number of 60° sectors (Based on 2D Assessment)**	**Approx. number of potentially visible WTGs (Based on ZVI)**
Non-involved					
BALWF067	***Off Yanga Way***	**5.065km**	**T46**	**1**	**107**
	Views likely to be available of all proposed turbines to the north-east. Scattered vegetation is likely to fragment views.				

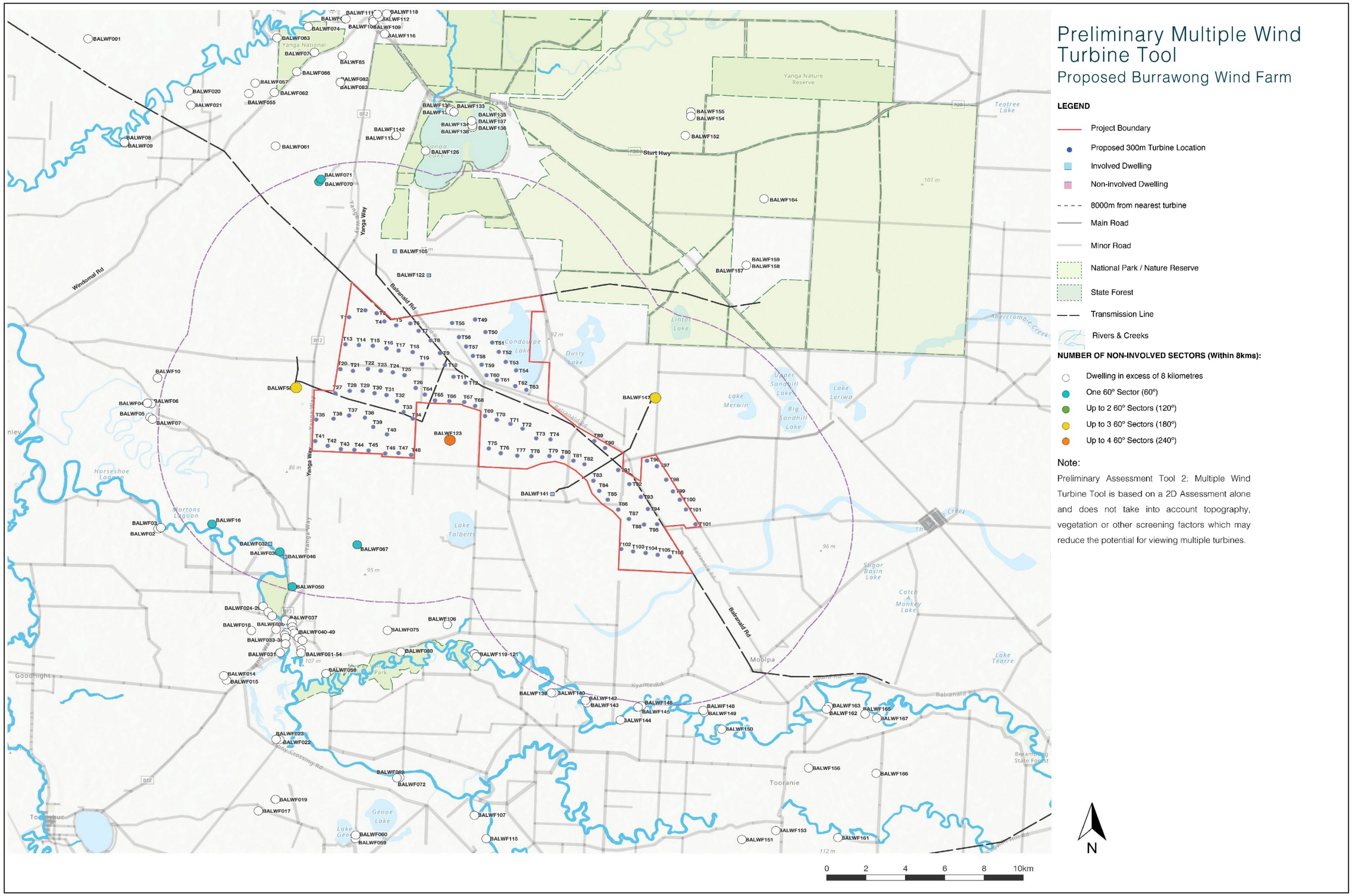

Figure 6-3 Multiple wind turbine assessment

Viewpoint analysis

In response to the feedback received at the Scoping Meeting held with DPIE on 8 June 2021, the preliminary viewpoint analysis in the PVIA was extended to include the two townships of Balranald and Kyalite. Balranald is approximately 15km from the Proposal and the viewpoint assessment finds that it is likely that a combination of distance and vegetation in the foreground will screen views to the Proposal. Kyalite is approximately 10km from the Proposal and the viewpoint analysis finds that views to the turbines will be difficult to discern from this location due to a combination of distance and vegetation. See Appendix C for the full viewpoint analysis.

The townships of Balranald and Kyalite have also been identified as Landscape Character Units (LCU) in the PVIA and a detailed assessment of key public viewpoints with potential visual impacts will be undertaken in the LVIA phase.

Proposed further assessment

Details on how the Proponent will respond to the PVIA are provided in Section 7. Further assessment and justification for placement of turbines will be detailed in the EIS, along with a summary of mitigation and management options proposed for individual receivers.

The scope of the Landscape and Visual Impact Assessment (LVIA) for the EIS will include a detailed dwelling assessment at sensitive non-involved dwellings to:

- Assess each ‘sensitive receptor’ in detail to take into account topography, vegetation and other screening factors.
- Determine the potential visual impact of each sensitive receptor and provide mitigation methods to reduce potential visual impacts.

The LVIA will also include a detailed Visual Baseline Study to:

- Identify any additional key features and viewpoints valued by the community through ongoing consultation.
- Refine the Landscape Character Units and allow the community to provide feedback on the relative scenic quality ratings of these.
- Determine the Zone of Visual Influence of key viewpoints and assess these against the objectives outlined in the Visual Assessment Bulletin.
- Provide graphic representations of the Proposal using GIS technology including wire frame diagrams and photomontages.

6.2.2 Noise amenity

Introduction

Windlab has undertaken a Preliminary Noise Impact Assessment (PNIA) for the Proposal. The PNIA has been prepared in accordance with the NSW Wind Energy: Noise Assessment Bulletin (EPA/DPE) 2016.

The Proposal will comply with strict construction and operational noise limits. Figure 6-4, extracted from the Noise Assessment Bulletin, compares various noise standards from other national and international jurisdictions and demonstrates that NSW has adopted high standards when compared to these other jurisdictions.

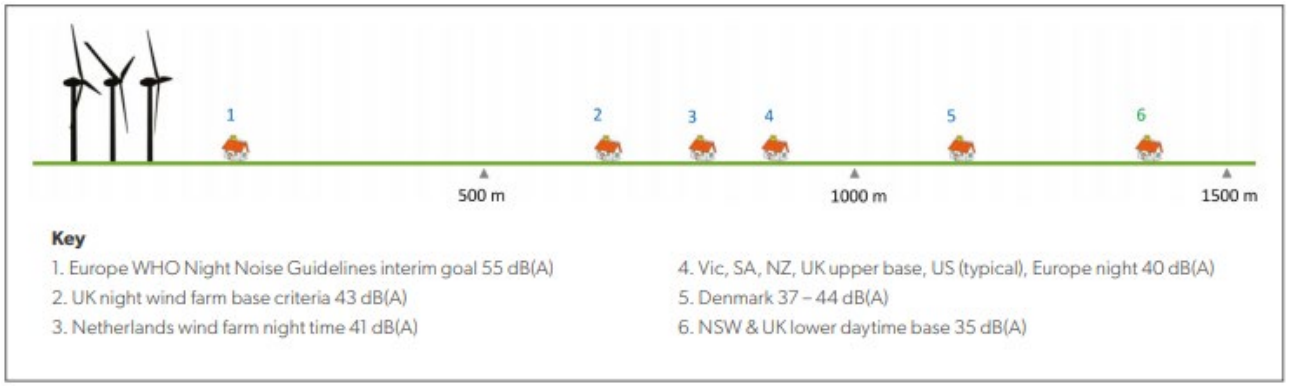

Figure 6-4 Representative distances at which various noise standards can be achieved

Methodology

Windlab has conducted a preliminary assessment on operational noise using specialised modelling software (OpenWind) to provide indicative noise predictions. The assessment was conducted in accordance with the Noise Assessment Bulletin and utilised the preliminary layout presented in Figure 2-7. Three wind turbine models representative of the size and type of turbine being considered for the Proposal have been modelled using the maximum sound power level and conservative assumptions to produce the worst-case noise scenario. Indicative noise predictions corresponded to hub height wind speeds of 9m/s and above when the turbine models are producing the highest level of noise. Indicative noise predictions generated in the modelling were compared to the base criteria adopted by the Noise Assessment Bulletin of 35 dBA for non-involved residences.

Preliminary assessment

Based on the preliminary modelling, the baseline criterion of 35 dB(A) is predicted to be achieved at all non-involved dwellings with the exception of one dwelling. However, another dwelling is within 1 dBA of the limit (34.8 dBA). To allow for modelling errors and ensure that impacts are fully understood and considered, this dwelling has been classified as a sensitive receptor requiring further assessment and justification. The results of the preliminary assessment modelling are shown graphically in Figure 6-5 and listed in Table 6-2. There are no non-involved residences within 2km of a proposed turbine position. Dwellings further than 6km are not shown.

Table 6-2 Results of the noise model

House ID	Distance to nearest turbine (km)	Predicted noise (dbA)	Exceedance above 35 dBA
BALWF58	2.3	34.8	Yes
BALWF67	5.1	23.8	No
BALWF123	2.0	38.6	Yes
BALWF147	3.4	28.7	No

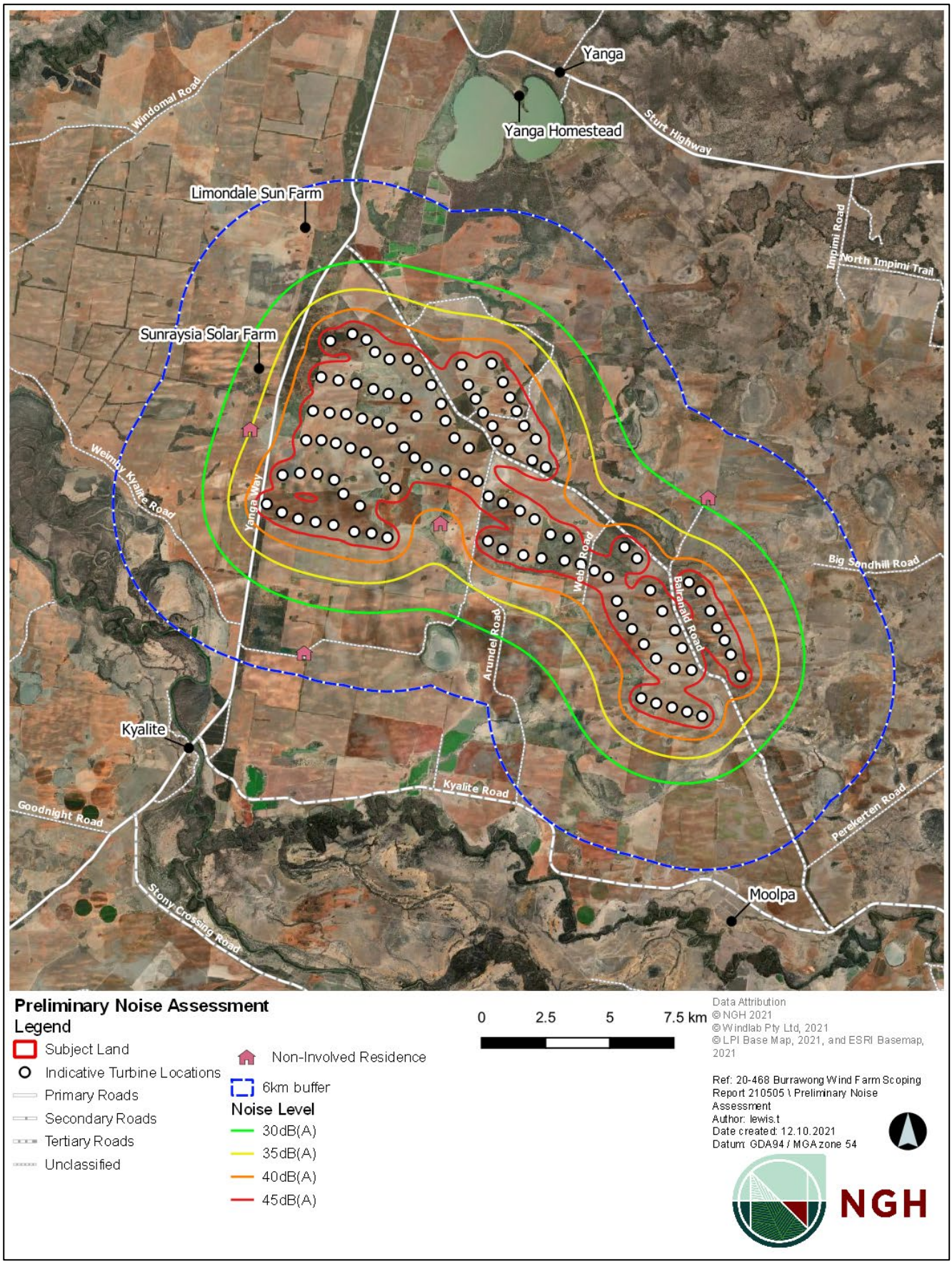

Figure 6-5 Preliminary noise assessment with non-involved residences shown

Proposed further assessment

Details on how the Proponent will respond to the PNIA are provided in Section 7. Further assessment and justification for placement of turbines will be detailed in the EIS, along with a summary of mitigation and management options proposed for individual receivers.

The scope of the Noise Impact Assessment (NIA) for the EIS will include:

- A relevant level of background noise survey
- Review of site meteorology data to determine relevant meteorological data to be used in modelling
- Predictive noise modelling of the Proposal's construction and operational activities
- Road traffic noise during construction and operational activities
- Vibration impacts at sensitive receptors
- Blasting impacts at sensitive receptors
- Cumulative noise impacts with surrounding industry (if any)
- Identification of any reasonable and feasible mitigation and management measures.

The NIA will also assess all components of the Proposal including:

- Wind turbine noise in accordance with the Noise Bulletin (DPE, 2016c)
- Ancillary infrastructure in accordance with the 'NSW Noise Policy for Industry '(EPA, 2017)
- Construction noise under the 'Interim Construction Noise Guideline;' (DECC, 2009)
- Traffic noise under the 'NSW Road Noise Policy' (DECCW, 2011)
- Vibration 'Assessment Vibration: A technical Guideline' (DECC, 2006).

6.2.3 Biodiversity

NGH was commissioned to undertake a preliminary biodiversity assessment for the Proposal, and the assessment is summarised below.

Methodology

This assessment was informed by desktop investigation and limited onsite ground truthing. A Senior Ecologist and Ecologist inspected the site over two days between 8-9 December 2020. The inspection was undertaken to validate the biodiversity desktop information and obtain information on the level of site disturbance. This information will be used to target more detailed targeted site surveys.

Site evaluation utilised 175 rapid assessments to determine key vegetation types and potential for vegetation and habitat of conservation significance. Rapid assessment was focussed in areas of the draft Development Site. Key features surveyed on site include:

- Key vegetation types
- Plant Community Types (PCTs) determination
- Rapid assessment was also utilised to determine the likelihood of threatened ecological community occurrence
- Potential for threatened vegetation communities or habitat to support threatened species e.g. Hollow-bearing trees
- Presence of threatened flora and fauna

- Habitat of conservation significance e.g. Waterbodies, isolated paddock trees, fallen timber
- Defining non-native vegetation areas which were used for cropping or grazing.

Plant Community Types (PCTs)

Existing State Vegetation Mapping (VIS_ID_4469) and rapid assessment on site from the 8-9 December 2020 by senior Biodiversity Assessment Method (BAM) accredited NGH ecologist Kirsten Vine (BAAS19031) and NGH Ecologist Clare Vincent, was utilised to determine presence/absence of Plant Community Types (PCTs) and Threatened Ecological Communities (TECs) within the Subject Land. Overall, ten (10) PCTs were determined to occur on site and can be seen in Table 6-3.

PCTs will need to be confirmed in a detailed Biodiversity Assessment Report (BDAR) as required under the *Biodiversity Conservation Act 2016* (BC Act).

The dominant PCTs were determined to be:

- PCT 13 - Black Box - Lignum woodland wetland of the inner floodplains in the semi-arid (warm) climate zone (mainly Riverina Bioregion and Murray Darling Depression Bioregion)
- PCT 15 - Black Box open woodland wetland with chenopod understorey mainly on the outer floodplains in south-western NSW (mainly Riverina Bioregion and Murray Darling Depression Bioregion)
- PCT 57 - Belah/Black Oak - Western Rosewood - Wilga woodland of central NSW including the Cobar Peneplain Bioregion
- Other PCTs were predominantly grassland and shrubland communities, occurring in small discreet areas which can form moderate to high habitat potential for threatened species.

Threatened Ecological Communities (TECs)

The Office of Environment and Heritage (OEH) threatened species search and detailed mapping of the surrounding areas (VIS_ID_4469) and preliminary field assessment identified ten PCTs occurring on the site with seven being associated with Threatened Ecological Communities (TECs) under the BC Act (Table 6-3). No PCTs qualify for a TEC under the EPBC Act. PCT mapping is provided in Figure 6-6.

Further comprehensive BAM plots are required to confirm that all the PCTs do or do not fully meet the criteria for all the TECs.

PCT 23 is the only PCT which is a TEC, and therefore poses a high constraint. The TEC is *Acacia melvillei Shrubland in the Riverina and Murray-Darling Depression bioregions* TEC. This is a small 0.75 ha area of vegetation within the Subject Land.

Table 6-3 PCTs in Development Site

PCT	PCT Name	Vegetation Class	Vegetation Formation	Approx. Area (ha)	Threatened Ecological Community
0	Not native	NA	NA	11592.58	NA
13	Black Box - Lignum woodland wetland of the inner floodplains in the	Inland Floodplain Woodlands	Semi-arid Woodlands (Grassy)	4.88	No associated TEC

PCT	PCT Name	Vegetation Class	Vegetation Formation	Approx. Area (ha)	Threatened Ecological Community
	semi-arid (warm) climate zone (mainly Riverina Bioregion and Murray Darling Depression Bioregion)				
15	Black Box open woodland wetland with chenopod understorey mainly on the outer floodplains in south-western NSW (mainly Riverina Bioregion and Murray Darling Depression Bioregion)	Inland Floodplain Woodlands	Semi-arid Woodlands (Grassy)	944.06	No associated TEC
23	Yarran tall open shrubland of the sandplains and plains of the semi-arid (warm) and arid climate zones	Riverine Sandhill Woodlands	Semi-arid Woodlands (Shrubby)	0.75	**Listed BC Act, E**: *Acacia melvillei Shrubland in the Riverina and Murray-Darling Depression bioregions* (Equivalent). **This PCT does meet the criteria for this TEC, but in a very degraded condition**
44	Forb-rich Speargrass - Windmill Grass - White Top grassland of the Riverina Bioregion	Riverine Plain Grasslands	Grasslands	15	**Listed EPBC Act, CE:** *Natural Grasslands of the Murray Valley Plains* (Part) This PCT occurs in a derived form in NSW and may be eligible for this TEC listing. Each grassland patch will need individual assessment if impacted on.
46	Curly Windmill Grass - speargrass - wallaby grass grassland on alluvial clay and loam on the Hay Plain, Riverina Bioregion	Riverine Plain Grasslands	Grasslands	803.65	**Listed EPBC Act, CE:** *Natural Grasslands of the Murray Valley Plains (*Part) This PCT occurs in a derived form in NSW and may be eligible for this TEC listing. Each grassland patch will need individual assessment if impacted on.
57	Belah/Black Oak - Western Rosewood - Wilga woodland of central NSW including the Cobar Peneplain Bioregion	Semi-arid Woodlands (Shrubby)	Semi-arid Sand Plain Woodlands	236.5	**Listed BC Act, E**: *Acacia loderi shrublands* **This PCT does not meet the criteria for this TEC as *Acacia loderi* does not occur as the dominant or semi-dominant species**.

PCT	PCT Name	Vegetation Class	Vegetation Formation	Approx. Area (ha)	Threatened Ecological Community
163	Dillon Bush (Nitre Bush) shrubland of the semi-arid and arid zones	Riverine Chenopod Shrublands	Arid Shrublands (Chenopod sub-formation)	225.86	**Listed BC Act, E**: *Artesian Springs Ecological Community in the Great Artesian Basin* **This PCT does not meet the criteria for this TEC as it is not dependant on springs; not mapped as occurring nearby; nor dominated by sedges or other semi-aquatic plants**
170	Chenopod sandplain mallee woodland/shrubland of the arid and semi-arid (warm) zones	Sand Plain Mallee Woodlands	Semi-arid Woodlands (Shrubby sub-formation)	212.1	**Listed BC Act, E:** *Acacia loderi shrublands* (Part); **This PCT does not meet the criteria for this TEC as it does not contain *Acacia loderi* or characteristic species.** **Listed BC Act, E**: *Acacia melvillei Shrubland in the Riverina and Murray-Darling Depression bioregions* (Part); This PCT does not meet the criteria for this TEC as it does not contain *Acacia melvillei* or characteristic species.
173	Sandplain mallee of central NSW	Sand Plain Mallee Woodlands	Semi-arid Woodlands (Shrubby sub-formation)	141.54	**Listed BC Act, E:** *Acacia loderi shrublands* (Part); **This PCT does not meet the criteria for this TEC as it does not contain *Acacia loderi* or characteristic species.** **Listed BC Act, E**: *Acacia melvillei Shrubland in the Riverina and Murray-Darling Depression bioregions* (Part); This PCT does not meet the criteria for this TEC as it does not contain *Acacia melvillei* or characteristic species.

Table 6-4 Plant community types ground truthed

Land Category Assessment (LCA)

NGH was engaged by Windlab to prepare a preliminary Land Category Assessment for the proposed Burrawong Wind Farm. Section 6.8(3) of the BC Act determines that the Biodiversity Assessment Method (BAM) is to exclude the assessment of the impacts of clearing of native vegetation on Category 1 - Exempt Land (within the meaning of Part 5A of the *Local Land Services Act 2013* (LLS Act)).

A desktop assessment of available spatial data, literature review of previous studies in the region and field observations were undertaken for the Subject Land to determine the ecological constraints, native vegetation communities and land class categories. A precautionary approach was used when identifying Category 2 – Regulated Land. Where data was conflicting, land was mapped as Category 2.

Based on the data sources used, there is evidence to suggest that large areas of the subject land, have been heavily modified from agricultural use pre-1990. This is supported by the 2017 land use datasets, historic aerial imagery and woody extent spatial data. These areas have been mapped as Category 1 - Exempt Land. These areas are exempt from most aspects of the biodiversity assessment, under the BAM.

Areas of woody vegetation and scattered paddock trees present in 1990 have been mapped as Category 2 – regulated land. Where in doubt, or where data sources are conflicting, a precautionary approach has been implemented for areas deemed inconclusive in terms of determining historical land use.

The full Land Category Assessment report is provided in Appendix C. The draft mapping of Category 1 and Category 2 land is provided in Figure 6-7.

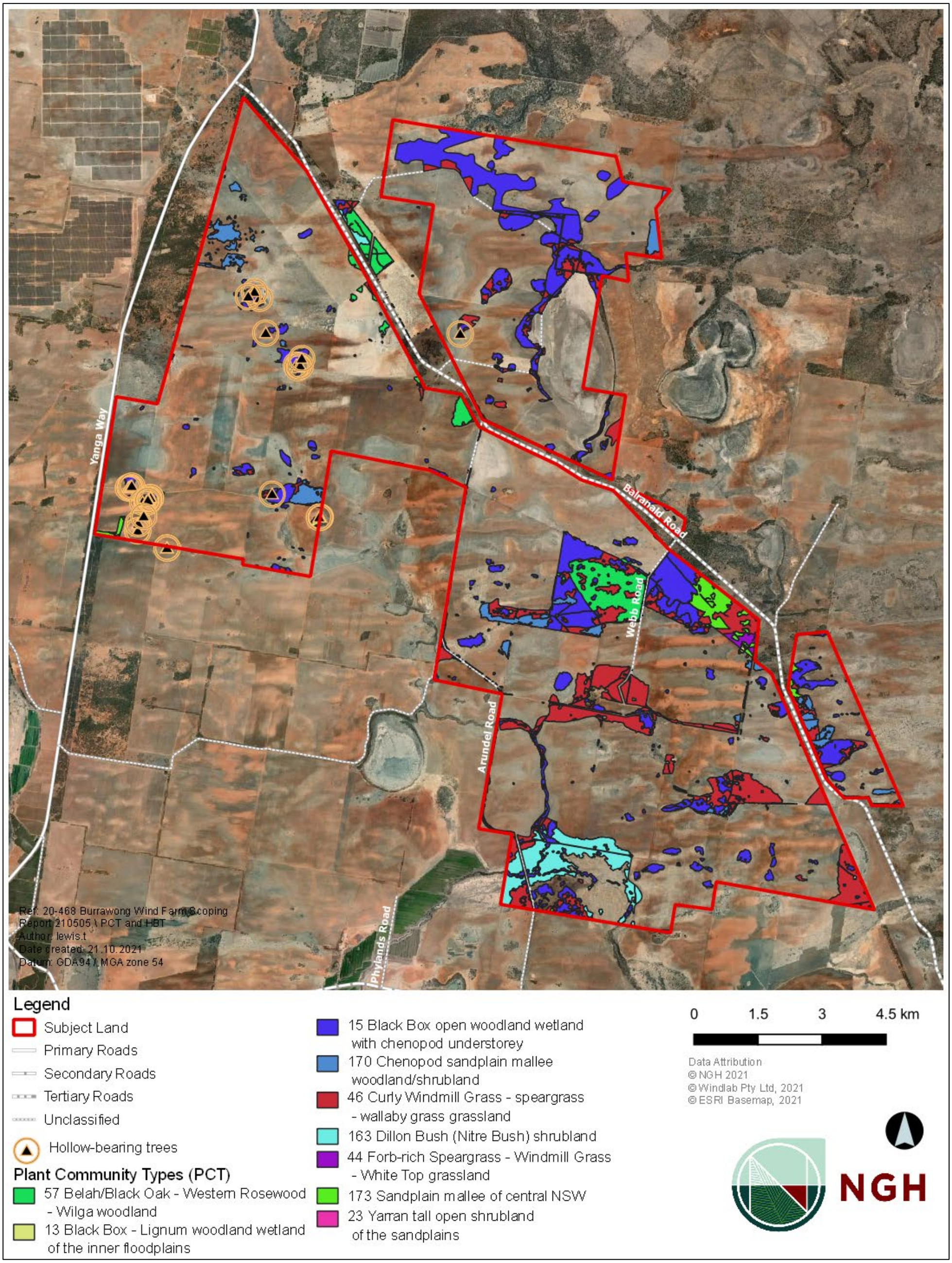

Figure 6-6 Plant community types (PCTs) and hollow-bearing trees

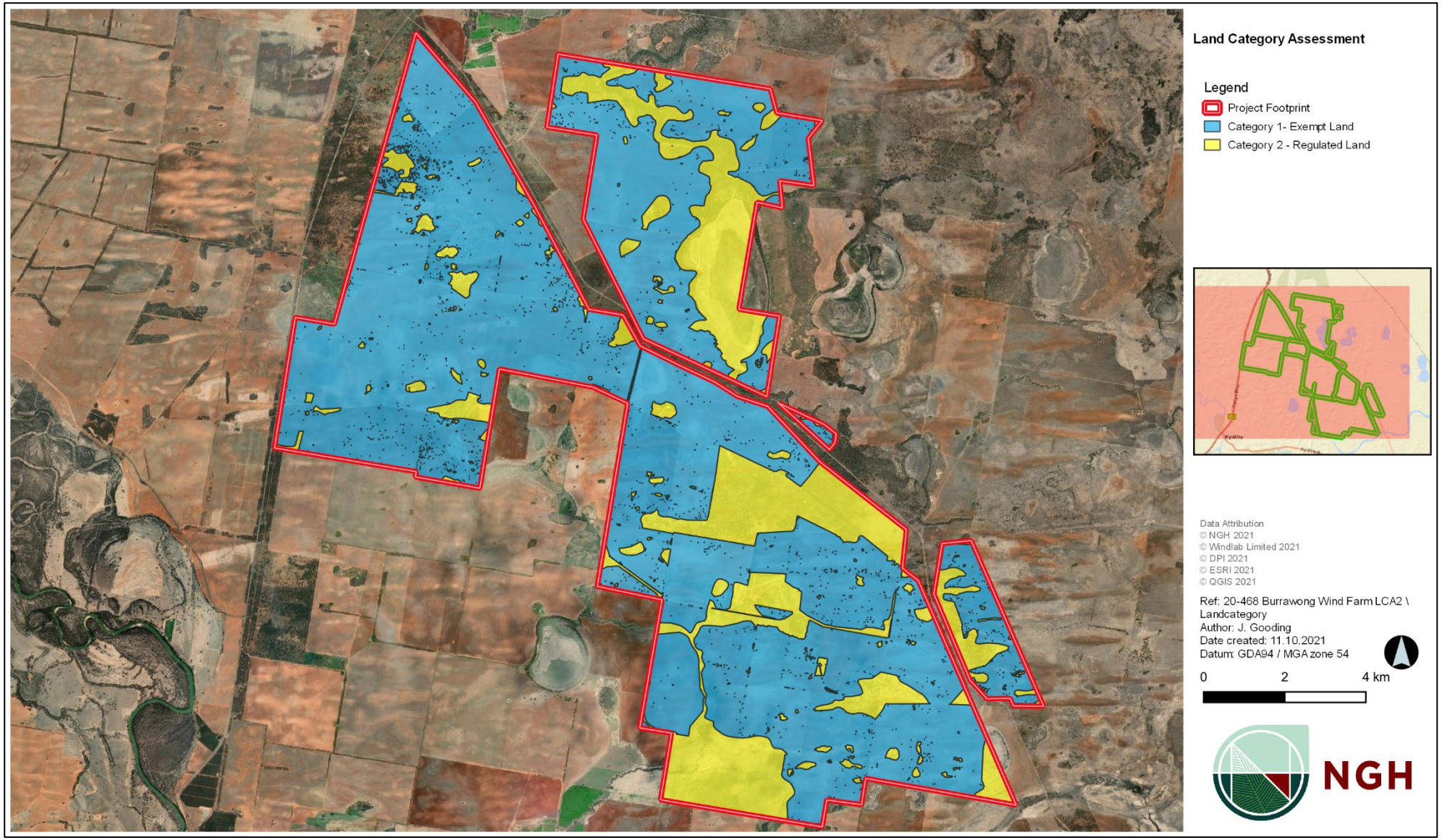

Figure 6-7 Preliminary land category mapping

The results of the preliminary biodiversity surveys, PCT mapping and preliminary Land Category Assessment indicate that the site is suitable from a biodiversity perspective.

Threatened species

A search of the NSW Bionet Atlas revealed threatened fauna and flora are known to occur in the Study Area (10km radium from the Subject Land). Seven (7) threatened bird species occurred; of these, none occurred within the Subject Land.

The Protected Matters search found 7 plants, 2 mammals, 1 frog, 5 fish, 10 birds, 1 reptile and 10 migratory birds as potentially occurring in the Subject Land (see Table 6-5). The migratory species require consideration for turbine strike.

Most watercourses and waterbodies are ephemeral or overland flow paths on the Subject Land. One exception is the Forest Creek in the lower southeast portion of the Subject Land which is classified as key fish habitat (stream order 3) and has sections outside the Subject Area that are classified as areas of high biodiversity value. In addition, Condoulpe Lake, and Condoulpe Creek are also classified as areas of high biodiversity value located within the Subject Land (as seen in Figure 6-8). Further assessment of these areas will be required.

Due to the connectivity to Yanga National Park, Yanga Nature Reserve, and Yanga State Conservation Area a high number of threatened flora and fauna species have been recorded within close proximity to the Subject Land. Indirect impacts and collision impacts will require investigation.

Table 6-5 Protected Matters Threatened Species

Species	EPBC Act Status	Comments
Aves		
Australasian Bittern *Botaurus poiciloptilus*	Endangered	Also a BAM ecosystem credit species
Curlew Sandpiper *Calidris ferruginea*	Critically Endangered	
Grey Falcon *Falco hypoleucos*	Vulnerable	Also a BAM ecosystem credit species
Painted Honeyeater *Grantiella picta*	Vulnerable	
Malleefowl *Leipoa ocellata*	Vulnerable	
Eastern Curlew *Numenius madagascariensis*	Critically Endangered	
Plains Wanderer *Pedionomus torquatus*	Critically Endangered	
Night Parrot *Pezoporus occidentalis*	Endangered	
Regent Parrot (eastern) *Polytelis anthopeplus monarchoides*	Vulnerable	
Painted Snipe *Rostratula australis*	Endangered	A BAM Ecosystem Credit Species
Fish		

Species	EPBC Act Status	Comments
Silver Perch *Bidyanus bidyanus*	Critically Endangered	
Murray Hardhead *Craterocephalus fluviatilis*	Endangered	
Flathead Galaxia *Galaxias rostratus*	Critically Endangered	
Murray Cod *Maccullochella peelii*	Vulnerable	
Macquarie Perch *Macquaira australasica*	Endangered	No suitable habitat in subject area
Frogs		
Southern Bell Frog *Litoria raniformis*	Vulnerable	A BAM Species Credit Species
Mammals		
Corben's long-eared Bat *Nyctophilus corbeni*	Vulnerable	
Koala *Phascolarctos cinereus*	Vulnerable	
Plants		
Austrostipa metatoris	Vulnerable	A BAM Species Credit Species
Mossgiel Daisy *Brachyscome papillosa*	Vulnerable	A BAM Species Credit Species
Greencomb Orchid *Caladenia tensa*	Endangered	
Winged Peppercress *Lepidium monoplocoides*	Endangered	A BAM Species Credit Species
Chariot Wheels *Maireana cheelii*	Vulnerable	
Menindee Nightshade *Solanum karsense*	Vulnerable	A BAM Species Credit Species
Slender Darling-pea *Swainsona murrayana*	Vulnerable	
Reptiles		
Striped Legless Lizard *Delma impar*	Vulnerable	
Migratory Marine Species		
Fork-tailed Swift *Apus pacificus*	Protected migratory bird	
Migratory Terrestrial Species		
Yellow Wagtail *Motacilla flava*	Protected migratory bird	
Satin Flycatcher *Myiagra cyanoleuca*	Protected migratory bird	

Species	EPBC Act Status	Comments
Migratory Wetlands Species		
Common Sandpiper *Actitus hypoleucos*	Protected migratory bird	
Sharp-tailed Sandpiper *Calidris acuminata*	Protected migratory bird	
Curlew Sandpiper *Calidris ferruginea*	Protected migratory bird	Listed above
Pectoral Sandpiper *Calidris melanotos*	Protected migratory bird	
Latham's Snipe *Gallinoga hardwickii*	Protected migratory bird	
Eastern Curlew *Numenius madagascarensis*	Protected migratory bird	Listed above
Common Greenshank *Tringa nebularia*	Protected migratory bird	

Matters of National Environmental Significance (MNES)

The EPBC Protected Matters Search Tool within 10km of the Subject Land found the nearest RAMSAR wetland was located at the Hattah-kulkyne lakes 50-100km upstream. The Proposal would not alter hydrology of the locality or region or create contaminated run-off that may affect these wetlands.

The following Endangered communities were highlighted in the Protected Matters Search:

- *Buloke Woodlands of the Riverina and Murray-Darling Depression Bioregions* – This community does not occur onsite.
- *Grey box (Eucalyptus microcarpa) Grassy Woodlands and Derived Native Grasslands of South-eastern Australia* - This community does not occur onsite.
- *Weeping Myall Woodlands* - This community is considered unlikely to occur but will be investigated further.

Habitat values

Based on the preliminary field assessment, the key habitat values that occur in the Subject Land include but may not be limited to:

- Grassland/shrubland
- Woodland
- Fallen timber
- Isolated paddock trees
- Water sources:
    - Artificial water sources (dams/troughs/channels)
    - Wetland inundation areas
    - Ephemeral lakes and creeks
- Hollow bearing and nest trees
- Transmission line
- Agricultural crops

Biodiversity values

Biodiversity values mapped by DPIE indicates land that is identified as containing high biodiversity value. Areas of high biodiversity value are particularly sensitive to clearing and development. There are no BAM Important Areas within the Subject Land, but Condoulpe Lake, Condoulpe Creek and The Forest Creek watercourses are mapped immediately adjacent to the Subject Land as having biodiversity value and therefore will be investigated further for indirect impacts given they are downstream of the Proposal.

Serious and Irreversible Impact (SAII)

Entities identified as having a potential Serious and Irreversible Impact (SAII) that occur in the Subject Land according to the BAM-C include:

- *Calotis moorei* Burr-daisy
- *Dodonaea stenozyga* Desert Hopbush
- *Lasiopetalum behrii* Pink Velvet bush
- *Leptorhynchos waitzia* Button Immortelle
- *Pimelea serpyllifolia ssp. serpyllifolia* Thyme Rice-flower
- *Pseudomys desertor* Desert Mouse

Further surveys will determine the extent of impact on these entities if any.

Key Fish Habitat (KFH)

Forest Creek runs through the south-east portion of the Subject Land and constitutes Key Fish Habitat (KFH) (being strahler stream order 3). Other smaller waterways are interspersed across the Subject Land mostly throughout the eastern portion (see Figure 6-8).

Riparian and terrestrial corridors

The terrestrial landscape within the Subject Land contains discontinuous woodland corridors. Patches of woodland, shrubland and grasslands form important corridors and connectivity across the landscape and refuges for highly mobile species such as birds and bats. There are no riparian corridors in the project area.

Balranald Road intersects the Subject Land and forms an important vegetation corridor in the area that links various vegetation patches including Condoulpe Lake and Condoulpe Creek, and hence to the Murrumbidgee River. These systems form important fauna movement corridors on a regional scale, including important habitat for migratory wetland bird species. As such these areas will require further assessment. Waterways and indicative road crossings can be seen in Figure 6-8.

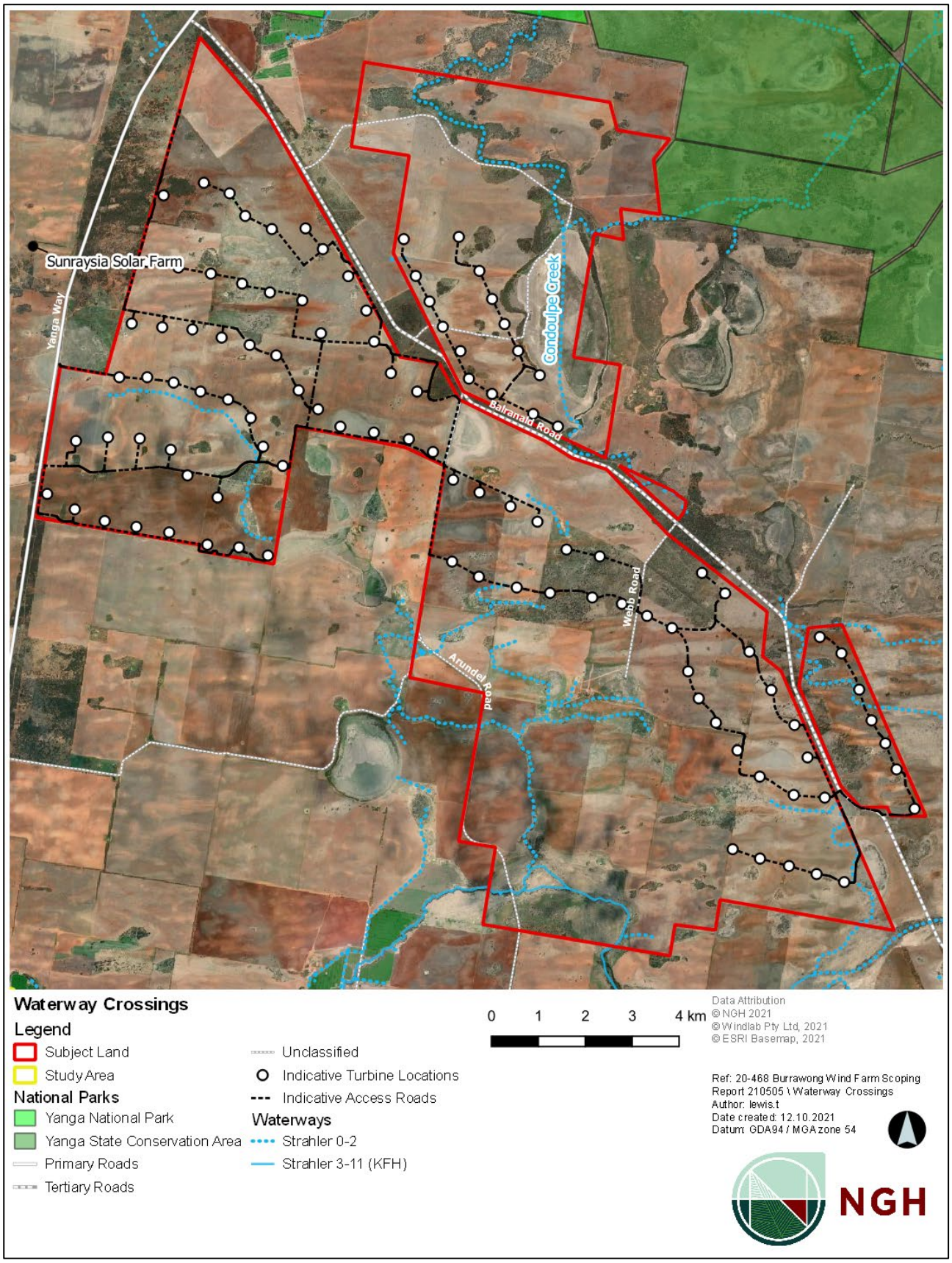

Figure 6-8 Waterways

Groundwater Dependent Ecosystems (GDEs)

Aquatic and Terrestrial GDEs do not occur within the Subject Land.

Collision risks

Understanding wind turbine collision risks are an important component of appropriately siting wind farms. Bird and bat activity levels are generally concentrated around areas of intact native overstorey vegetation or on migration / movement corridors. In this landscape, tree canopies are sparse and low. Movement patterns are often unpredictable, reflecting ephemeral resources such as lakes and flowering species. The northern border of the Subject Land is connected directly to Yanga State Conservation Area, and is near to Yanga Nature Reserve and Yanga National Park, anticipated to have higher local biodiversity. The risks of bird and bat strikes will be fully considered and assessed as part of the EIS via dedicated bird and bat utilisation surveys.

Further assessment requirements

State Significant Developments (SSDs) require the preparation of a Biodiversity Development Assessment Report (BDAR), in accordance with Biodiversity Assessment Method (BAM) pursuant with the BC Act. The BDAR will demonstrate how impacts have been avoided and minimised wherever possible, and offset only as a last resort. As part of the BAM process, further work will include:

- Seeking endorsement of the preliminary Land Category Assessment from Biodiversity Conservation and Science (BCS).
- Completion of vegetation mapping and floristic plot data collection (to confirm the PCTs, TECs, their vegetation integrity score, condition and distribution)
- Targeted surveys for candidate threatened species (generated by the SEARs and BAM process)
- Iterative workshops with the Proponent to investigate options to avoid and minimise impacts
- Assessment of relevant direct, indirect, prescribed and serious and irreversible impacts
- Offset calculations to determine the offset obligation of the final Proposal
- Offset planning, to ensure the offset obligation can be met.

Most wind farms trigger referral under the EPBC Act. In this case, bird and bat collision risks will form a key aspect of the detailed assessment and are considered at this stage to have potential to generate a significant impact. On this basis, recognition of the need to address Commonwealth matters is sought in the SEARs. A referral will be lodged shortly with the DAWE. All relevant EPBC listed communities and species would be included in the survey program and reported within the BDAR.

6.2.4 Aboriginal heritage

NGH Environmental PTY LTD was commissioned to undertake a preliminary Aboriginal heritage assessment for the Proposal, and the assessment is summarised below.

Methodology

This assessment was informed by desktop investigation and research. The NSW Office of Environment and Heritage (OEH) maintains the Aboriginal Heritage Information Management System (AHIMS) database. A search of the AHIMS register for Aboriginal sites and places provides an indication of the presence of previously recorded Aboriginal sites, these include:

- Information about Aboriginal objects that have been reported by archaeologists, the Aboriginal community and members of the public
- Information about Aboriginal places which have been declared by the Minister for the Environment to have special significance with respect to Aboriginal culture
- Archaeological reports.

A search of the Aboriginal Heritage Information Management System (AHIMS) database on 21 October 2121 identified 16 Aboriginal sites within the search area, and no declared Aboriginal Places (see Appendix A). AHIMS sites are shown in Figure 6-9.

A search of available national heritage inventories (i.e. the Australian Heritage Database) was undertaken for suburbs within the Study Area including: Kyalite, Yanga, and Moolpa. One site was located within the broader Study Area: An Indigenous Place registered in Kyalite (10km south of the Subject Land).

Archaeological background

Several archaeological surveys have been performed in the region including two within close proximity of the Subject Land (Keats & Markham, 2018), these studies were both conducted within similar landforms and provide reliable data to build a predictive model for the Subject Land.

Based upon the initial desktop assessment, using satellite imagery and topographic and environmental data, it appears that there is high potential for Aboriginal Cultural Heritage to occur within the Subject Land given it already has a significant number of registered AHIMS sites located within the area and the presence of archaeological sensitive landforms within the Subject Land.

Further assessment requirements

Areas of moderate and high Aboriginal heritage constraints are likely to contain Potential Archaeological Deposits, which may require archaeological excavations if impacted by development.

An Aboriginal Cultural Heritage Assessment (ACHA) will be required across all areas of the Development Corridor to verify the potential of the site. The ACHA will be undertaken in accordance with the requirements of the Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW (OEH 2011) and the Code of Practice for the Archaeological Investigation of Aboriginal Object in NSW (DECCW 2010). Consultation with Aboriginal communities will be undertaken in accordance with the requirements of the Aboriginal Cultural Heritage Consultation Requirements for Proponents (DECCW 2010). A pedestrian survey undertaken by a qualified archaeologist and Registered Aboriginal Parties (RAPs) will be required. All Aboriginal cultural heritage sites recorded during field surveys will be registered with AHIMS. Mitigation strategies will similarly be developed with input from RAPs.

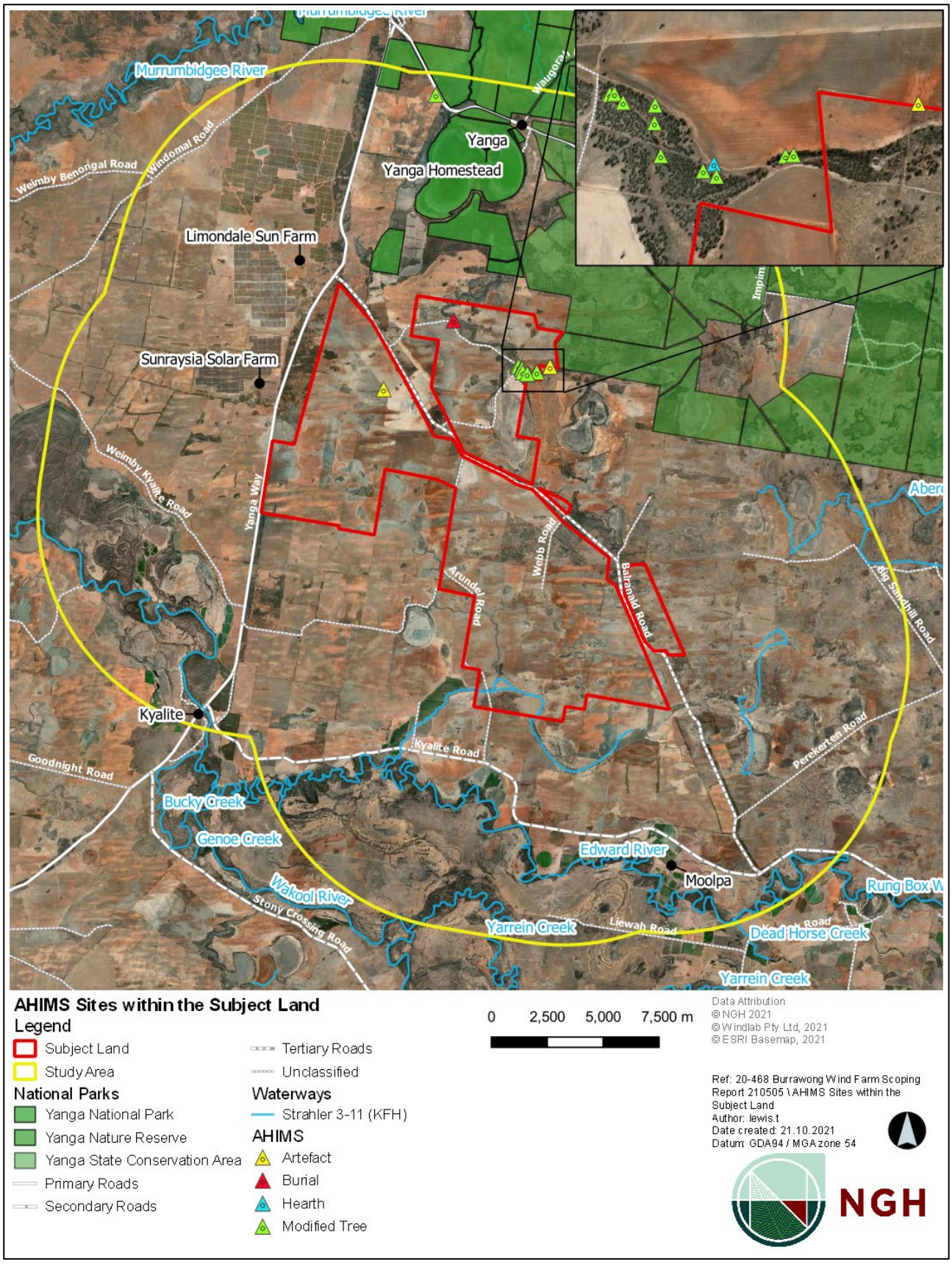

Figure 6-9 AHIMS Sites within the Subject Land

6.2.5 Traffic impacts

The construction phase of the Proposal will require some local road upgrades and intersection treatments, to accommodate an increase in traffic volumes. This will include both heavy vehicles for the transport of wind turbine components, and light vehicles to transport construction workers and materials. Once construction is completed, minimal traffic will be associated with the operations of the Proposal, with generally only light vehicle movement of operations personnel.

Access to the Development Site during construction and operation is proposed via the existing local road network, and would primarily utilise Yanga Way, Balranald-Moulamein Road and Arundel Road.

The delivery of large components and construction traffic, would occur via one of four over size, over mass (OSOM) networks, which have been identified as potential transport routes:

- **South Australia - Port Adelaide**
    - Via Mildura (A20) ~550km
- **Victoria - Port of Geelong**
    - Via Bendigo (A79) ~450km
- **New South Wales – Port Kembla**
    - Via Wagga Wagga – Hume Hwy, Sturt Hwy (A20) ~820km
- **New South Wales – Port of Newcastle**
    - Via Wagga Wagga – Hume Hwy, Sturt Hwy (A20) ~1,000km

Initial investigations indicate that given the increased size of newer turbine components, the route from Port Kembla may not be suitable due to height restrictions. As such, a potential transport route from the Port of Newcastle will also be considered. All four ports have previously been used for the delivery of wind turbine components.

A preliminary transport route study will be undertaken to determine the most appropriate route to transport OSOM turbine components to site. The chosen route will then be investigated further in the full Traffic and Transport Impact Assessment (TTIA) as part of the EIS.

All four options for OSOM are major haulage routes that are used for heavy vehicle movements and there is expected to be minimal constraints along these routes. Some upgrades to these routes may be required to accommodate the length of the turbine blades proposed, these will be assessed as part of the Proposal.

Upgrades to local roads may also be required and appropriate traffic management measures, both temporary and permanent, may be required. Figure 6-10 indicates the main access roads to the site.

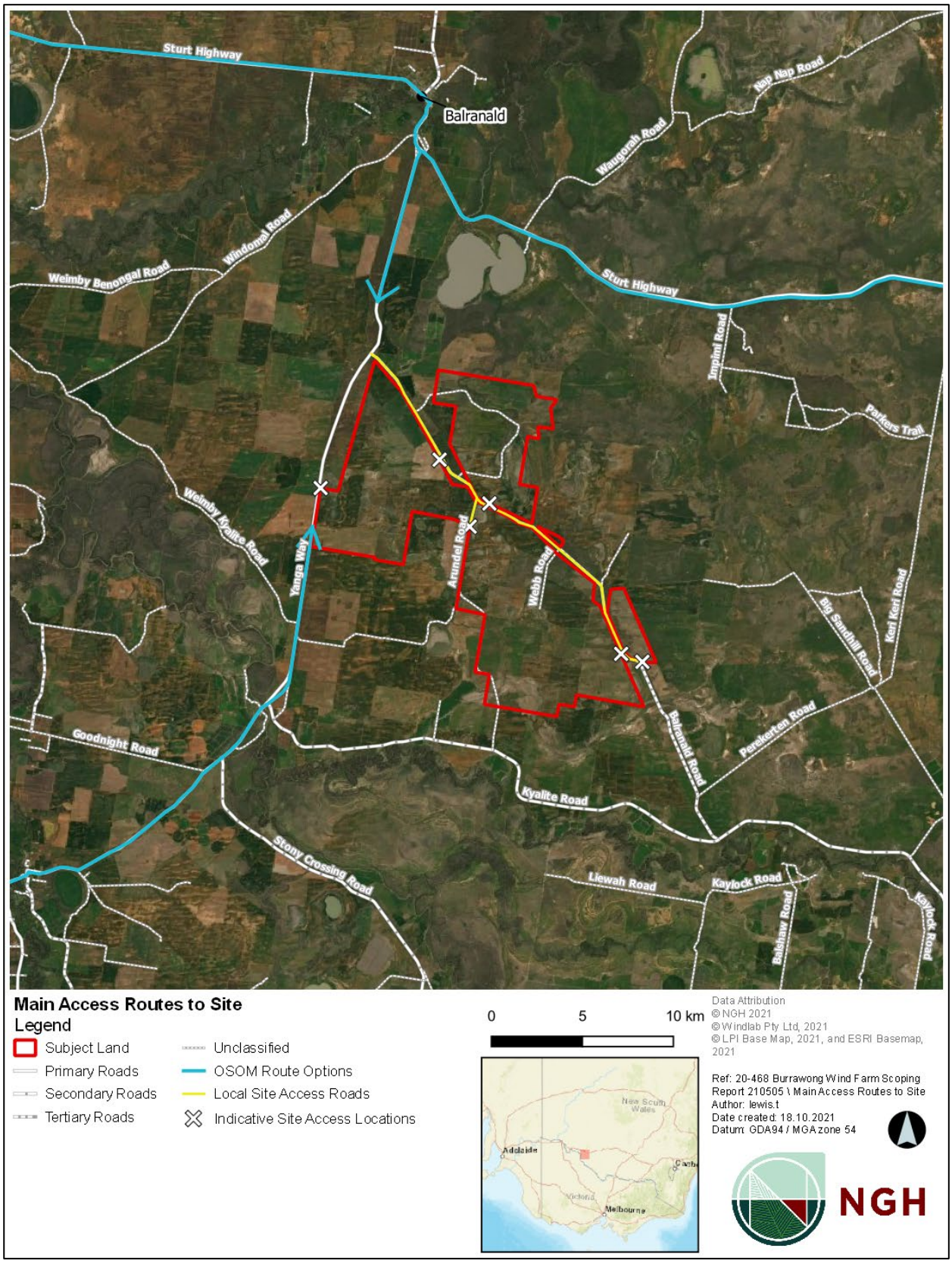

Figure 6-10 Main Access Routes to Site

Proposed further assessment

A full Traffic and Transport Impact Assessment (TTIA) will be undertaken as part of the EIS to inform road upgrades and traffic management appropriate to the Proposal. The scope of the TTIA is likely to include, but is not limited to:

- Review of any previous traffic impact assessments conducted in the surrounding area of the project site
- Preparation of construction, operational and decommissioning traffic impact assessments.
- Detailed haulage routes for Oversize, Over Mass (OSOM) components delivered from ports to project site - including swept path analysis, traffic flows and required augmentations
- Consultation with relevant stakeholders including councils, government agencies and regulators
- Traffic volume assessment, for both light and heavy vehicles, in the surrounding area of the project site for the various phases of the project's lifetime
- Assessment of the existing road network's capacity to accommodate the type and volume of traffic produced by the project during construction, operation and decommission (including road upgrades and additions if necessary)
- Assessment of ongoing road maintenance and traffic control measures where necessary
- Schedule of potential impact identification and mitigation strategies where necessary

6.2.6 Aviation

A number of airstrips and helipads are located within the Study Area, including two small private airstrips within the Subject Land, and five other airstrips within 10km of the Subject Land (see Figure 6-11).

The Balranald airport is a medium aerodrome with two runways, located 16km north of the Subject Land, or 1.9km northeast of Balranald on Ivanhoe Road.

Potential risks posed to aircraft from the proposed wind farm that require consideration include:

- Physical obstruction – this is most notable for aircraft that are closest to the ground such as those during take-off
- Interference with safe flight – the presence of excessively tall structures may present a hazard
- Reduction of areas available for pilots to use in the event of forced landing, such as engine failure after take-off
- Impact on use of emergency helicopter access
- Additional wind turbulence – the effect of wind turbine induced turbulence may affect aircraft that are smaller or lighter
- Electrical transmissions interfering with technical equipment – The electromagnetic field generated by the transmission line and wind farm may cause interference with technical equipment
- Impact on neighbouring farmers that use aerial spraying to manage their agricultural businesses
- Aerial baiting and culling in the National Park.

Proposed further assessment

Potential impacts to aviation safety will be assessed in the EIS. The EIS will include a specialist consideration of aviation impacts to provide information on potential aviation risks and address any aviation concerns raised during consultation with key stakeholders. This would include mitigation strategies with the aim of maintaining aerial spraying, pest culling and baiting (in particular within Yanga National Park, Yanga Reserve, and Yanga State Conservation Area) and emergency helicopter landing facilities.

The studies undertaken in the EIS will also assess the potential aviation related impacts with reference to the applicable requirements included in the *Civil Aviation Regulation 1988 (CAR), Civil Aviation Safety Regulations 1998 (CASR), National Airports Safeguarding Framework Guideline D: Managing the Risk of Wind Turbine Farms as Physical Obstacles to Air Navigation* (DITRDC, 2019), and associated Manuals of Standards. This would include an assessment of the impacts on aerial agricultural applications, aerial firefighting and aerial emergency services.

Consultation with the Civil Aviation Safety Authority (CASA) would be undertaken in relation to aviation safety lighting requirements, notification and reporting requirements, marking of turbines, marking of wind monitoring towers and marking of overhead transmission lines and poles to maintain an acceptable level of aviation safety. Not all wind farms require aviation safety lighting and this requirement would be assessed in detail as part of the EIS.

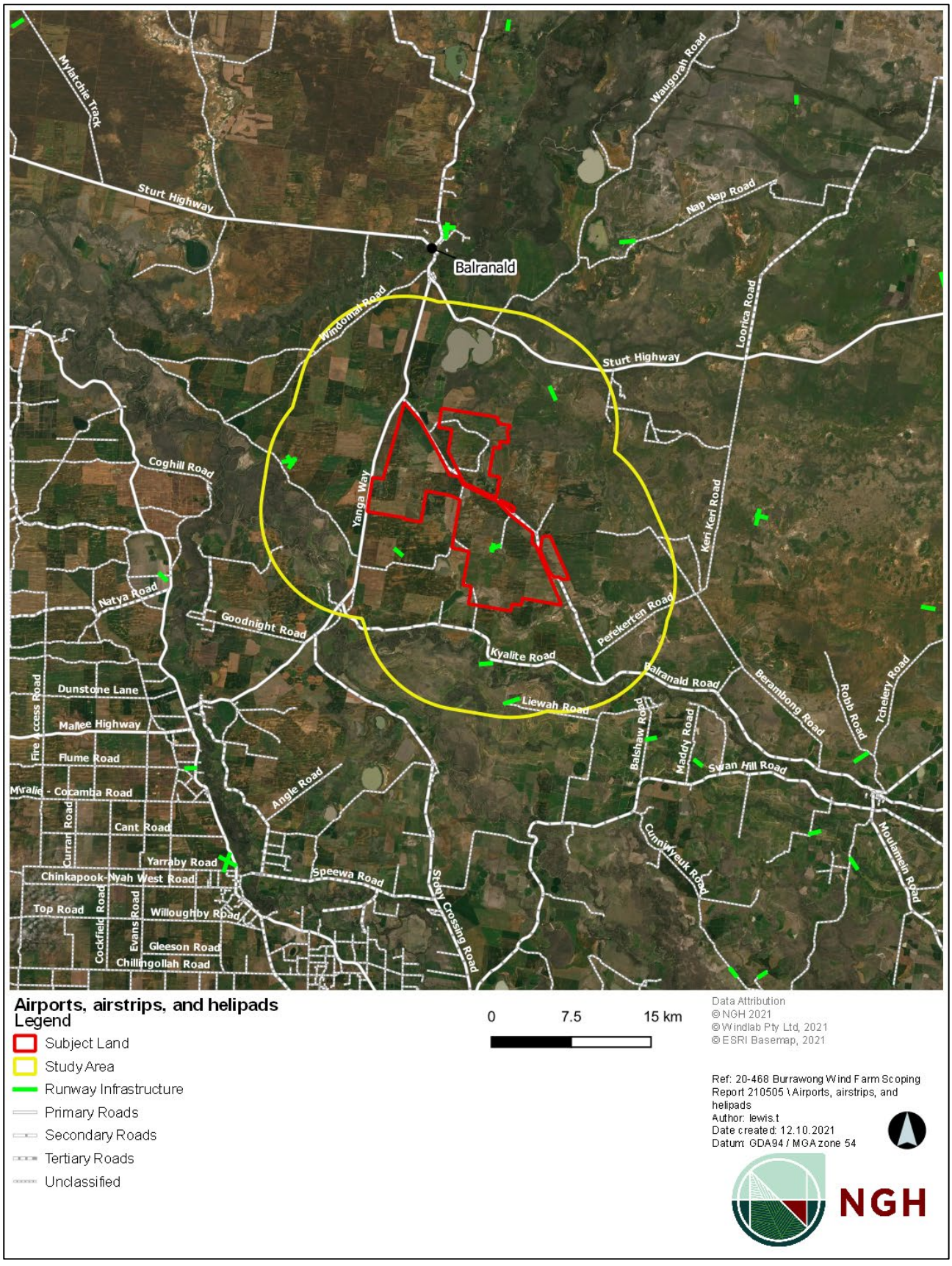

Figure 6-11 Airports, airstrips, and helipads

6.2.7 Telecommunications

Telecommunication services such as television and radio broadcast services, mobile phone services, radio communication services and aircraft navigation services are relied upon in the town of Balranald as well as residences within the Study Area. The operational wind farm has the potential to cause interference with electromagnetic signals.

A search of the Australian Communication and Media Authority (ACMA) database was carried out on the 12 May 2021 and identified 59 registered sites associated with licences and point to point links within 25km of the Subject Land. These included sites held by Telstra Corporation Limited, State Emergency Service, NSW Police and others. The closest site is located within 1km of the eastern border of the Subject Land (Figure 6-12).

Proposed further assessment

The EIS will include a specialist assessment considering telecommunication impacts with reference to required legislation and guidelines including the *Australian Radio and Communications Act 1992, NSW Wind Energy Guideline for State Significant Wind Development* (DP&E, 2016) and the *Clean Energy Council Best Practice Guidelines* (Auswind, 2006).

The assessment will identify ACMA registrations associated with licences and point to point links that have the potential to be adversely affected by the proposed wind farm.

Mitigation measures to minimise potential impacts on telecommunications would be prepared as part of the EIS.

6.2.8 Social impacts

Social locality

The social locality for the Proposal has been defined as:

- the landholdings, property owners and residents within the Subject Land;
- the State Suburbs (SSC) of Balranald, Yanga, Kyalite and Moolpa, as per the Australian Bureau of Statistics' (ABS) statistical area; and
- the Murray River LGA, which hosts the Proposal and the neighbouring Balranald LGA.

A map of the social locality and social baseline for this area is provided in Appendix D.

Preliminary assessment

An initial evaluation of likely social impacts was undertaken in accordance with the Social Impact Assessment Guideline and supporting Technical Supplement (DPIE 2021). The evaluation is provided in Appendix D. Social impacts will be explored further and confirmed during the EIS but based on the initial evaluation, the following have been identified as areas with potential for high social impacts.

- Negative:
  - Demand on housing and services, in construction
  - Changes to visual amenity, in operations

- Positive:
  - Local economic stimulus, in construction.
  - Diversification of land use, in operations

Proposed further assessment

The EIS will provide thorough consideration of the potential social and economic impacts. Community consultation will be undertaken during the EIS phase to understand any community concerns and ensure the EIS addresses these concerns.

A Social Impact Assessment will be undertaken in accordance with the Social Impact Assessment Guideline for State Significant Projects (DPIE, 2021).

This will include investigating strategies to promote local involvement and employment opportunities. Other mitigation and enhancement methods that are being considered are included in Appendix D.

6.2.9 Cumulative impacts

A number of renewable energy projects are at different stages of approval within 100km of the Proposal. Three major solar farms are located within the neighbouring Balranald and Hay LGAs. Limondale Solar Farm is operating; Sunraysia Solar Farm has been constructed and is being commissioned; and Hay Solar Farm has received development approval.

Limondale and Sunraysia Solar Farms are both located off Yanga Way, directly opposite the location of the Proposal.

Given that the Proposal is located within the proposed South-West REZ and along the proposed EnergyConnect line route, there is expected to be other renewable energy projects within the region.

Preliminary assessment

Consideration of cumulative impacts is provided in the Scoping Summary Table (Appendix E) and Social Impact Assessment Worksheet (Appendix D).

During construction and operation, key cumulative impacts may include:

- Visibility of the Proposal may generate a cumulative impact with transmission lines, adjacent Solar Farms and any other proposed renewable energy proposal within the region.
- Noise and traffic during construction may generate a cumulative impact if construction activities occur concurrently
- Pressure on local facilities, goods and services during construction may generate a cumulative impact if construction activities occur concurrently

Proposed further assessment

The EIS will provide thorough consideration of cumulative impacts. Community consultation will be undertaken during the EIS phase to understand any community concerns and ensure the EIS addresses these concerns.

A Cumulative Impact Assessment will be undertaken in accordance with the Cumulative Impact Assessment Guidelines for State Significant Projects (DPIE, 2021).

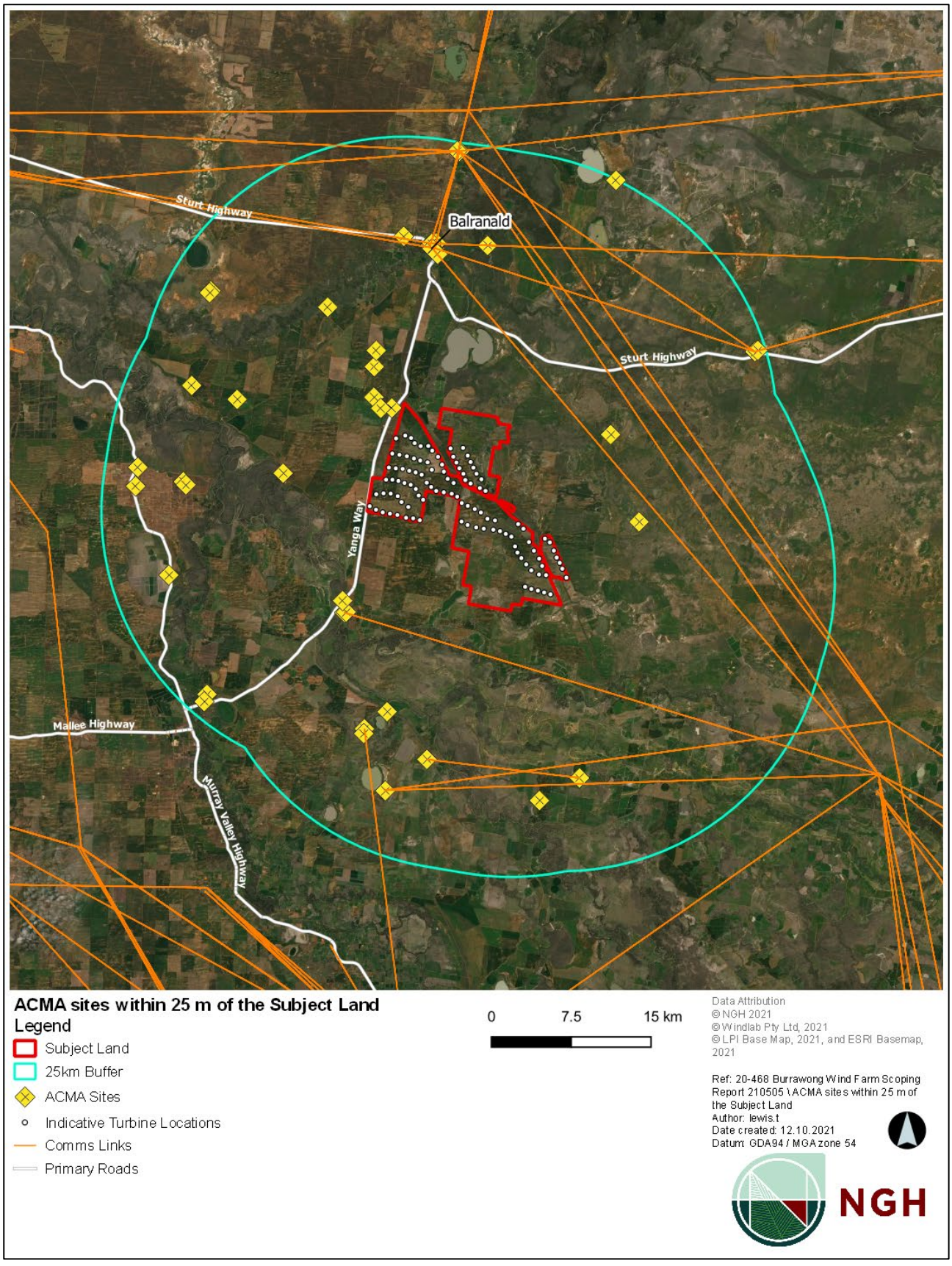

Figure 6-12 ACMA sites within 25 m of the Subject Land

6.3 Other environmental issues

There is a range of additional potential environmental issues associated with the Proposal which are considered secondary issues for investigation, given the characteristics of the Proposal and the availability of appropriate safeguards for mitigation. These issues are outlined in the following sections.

These issues will be addressed by desktop assessment, unless indicated otherwise in the SEARs. It is anticipated that any impacts identified will be able to be managed through appropriate mitigation measures and management plans.

Table 6-6 Other environmental issues

Issue	Existing environment	Potential impacts	Investigation strategies
Soil and contamination	As indicated from the background searches (Appendix A): • The geology of the Subject Land is predominantly Quaternary Woorinen Formation, which includes poorly consolidated red-brown sand dunes usually east-west oriented (NSW Geology Plus, 2021). Quaternary lacustrine deposits, Cainozoic sand dunes and poorly consolidated clay, silt, sand and gravel of the Cainozoic Shepparton Formation are present in pockets within the Subject Land. • Majority of the Subject Land is located on the Condoulpe Land System. Soils are predominantly solonized brown soils and areas of red earths on plains and flats, dunes of deep brownish sands and drainage basins of grey cracking clays (Walker, 1991). • Erosion is considered to be minor to moderate windsheeting and scalding (Walker, 1991). • The ASRIS Acid Sulphate Soils (ASS) Reference Sites and National Atlas (Appendix A) mapping within the locality is predominately 'Extremely Low Probability'. The Subject Land is unlikely to contain	Impacts during construction would include: • Discrete areas of ground disturbance and vegetation removal, which have the potential to cause soil erosion, sedimentation and weed ingress. • Wind farm construction is a linear development involving long thin trenches, roads, and spot development, which reduces soil impact areas considerably. Soil constraints are considered manageable and factors that will be considered in the EIS include: • Means to control erosion during construction/ operation. • Access in wet conditions.	The EIS will provide thorough consideration of soil impacts and propose mitigation measures for construction and operation. Due to the flat nature of the landscape, the proposed linear infrastructure and ability to manage soils during construction and operation, no specialist investigation is proposed, although the utility of base line soil survey, to validate existing mapping and inform remediation post disturbance will be considered.

Issue	Existing environment	Potential impacts	Investigation strategies
	ASS. • Based on EPI data mapping, no salinity issues occur on site. • Agricultural areas can have buried rubbish including contaminants such as herbicides that may be encountered during excavation. However, the Development Site does not appear on the List of NSW contaminated sites notified to the EPA.		
Land use compatibility	The key land use within the study area is agriculture. The soils are not highly productive and have limitations for cultivation. Land and soil capability (LSC) mapping for the Subject Land indicates that: • The majority of the Subject Land is Class 6 under the LSC assessment scheme. Class 6 land is considered to have severe to very severe limitations, suitable only for grazing and not suitable for cultivation (OEH, 2012). • There are small areas of Class 4 land. Class 4 land is considered to have moderate to severe limitations for some land uses. Suitable for grazing with limitations for cultivation (OEH, 2012). See Figure 2-5 for land use zoning of the Subject Land and wider Study Area. In the wider Study Area, there is also some land zoned as E1 - National Parks and Nature	During construction, there would be a reduction in agricultural activities within the Development Site. The final footprint of the development would disturb approximately 300 ha of land, within the broader Study Area of approximately 15,500 ha. This is equates to a 2% impact area, leaving the remaining 98% of land for agriculture. During operations, current agricultural activities such as cropping and grazing could continue without substantive impacts on yield and with the additional income stream provided to the landowners, diversifying the land use and income streams. This is particularly relevant in a context of projected drought and climate change. No part of the Subject Land is within the National Parks zone, however, indirect impacts on the values protected in the park could result.	The impact on agricultural production in the locality and region would be assessed in the EIS as part of a Land Use Conflict Risk Assessment (LUCRA). An Agricultural Impact Assessment would investigate the impact of the loss of agricultural land on agriculture in the region. As above, this may be informed by base line soil surveys to verify mapping for the site. The Biodiversity Assessment would include a landscape scale assessment and consideration of impacts to fauna movement corridors and collision risk, in consultation with NPWS stakeholders. A Bird and Bat Risk assessment would be completed and consideration of the NPWS Development Adjacent to National Parks and Service Lands (2020), would be considered in consultation with NPWS.

Issue	Existing environment	Potential impacts	Investigation strategies
	Reserves Area.		
Hydrology and groundwater	The Subject Land is located on the Lowbidgee Floodplain. Surface water features within the Subject Land include: • Condoulpe Creek • Forest Creek • Undefined ephemeral watercourses • Condoulpe Lake Although flood events and wetland inundation are likely to be seasonal, these aspects should be considered during the planning phase. Farm dams occur within the Subject Land.	Contamination of groundwater and surface water is unlikely given that chemicals and fuels will be appropriately stored, and spills procedures will be implemented. Impacts are best considered as part of the design process to ensure they are manageable. The EIS will include consideration of placement of infrastructure to minimise waterway crossings; protect hydrological function of waterways; and protect against soil erosion.	The EIS will consider the need for further hydrology investigations and provide thorough consideration of hydrology and groundwater impacts. Where required, specialist input from a hydrologist will be sought for works that may affect local hydrology.
Historic heritage	A search of available national heritage inventories (Appendix A) was undertaken for suburbs within the Study Area including Kyalite, Yanga, and Moolpa. No results were found within the Subject Land. A search of available state and local heritage inventories was undertaken via the State Heritage Register within the Study Area including Kyalite, Yanga, and Moolpa. These searches did not indicate any items of local or NSW heritage significance within the Subject Land. The Yanga Homestead is the closest historic site, located approximately 7.5km north-east	The Subject Land has been identified as having low potential for historic heritage constraints. Despite the Subject Land being directly south of the historic Yanga Homestead, there are no records to indicate any constraints. The historical archaeological potential of the Subject Land lies largely in the potential for undocumented structural remains, or personal belongings and artefactual evidence reflecting daily life and activities. Despite this, it is considered a low potential for significant historic archaeological deposits to be present across the Subject Land.	A historic heritage assessment, including onsite inspection, will be required to determine the heritage value of the Subject Land, including the location of unlisted sites.

Issue	Existing environment	Potential impacts	Investigation strategies
	at its closest point to the Subject Land. The Homestead is located on the shores of Lake Yanga, looking south-west towards the Subject Land. The Yanga Homestead has been the subject of several historic studies but is not heritage listed. Whilst there are no legal restrictions on the site, there is an obligation to consider and preserve the historic values of the site.		
Air Quality and climate	The air quality in Balranald is generally expected to be good and typical of that found in a rural setting in NSW due to low population numbers. Existing sources of air pollution in such a location is expected to comprise dust from agricultural practices. During colder months, there may be a minimal increase in air contaminants due to smoke emissions from the operation of solid fuel heating. The Australian Bureau of Meteorology (BOM) (1995-2020) climate records from the nearest climate station at Balranald RSL (station number 49002) indicates a mean summer maximum of 33.1°C (January) and a mean winter minimum of 3.5°C (July). Rainfall records from the same station show a mean annual rainfall of 323.1mm, and that rainfall is generally greatest over spring, with the average monthly maximum occurring in May (31.1mm).	Operation of the proposal will have a positive contribution in mitigating greenhouse gas emissions. Construction of the proposal is not anticipated to have a significant impact on air quality and will mostly be related to dust during construction. Impacts to air quality during operation are likely to be negligible.	The EIS will provide thorough consideration of air quality impacts and propose mitigation measures for construction and operation.

Issue	Existing environment	Potential impacts	Investigation strategies
Electromagnetic Fields (EMFs) and Health	EMFs are associated with transmission lines and substations in the area.	Additional EMFs would be generated from the proposed transmission lines, and the substation(s), during the operation of the Proposal.	An EMF assessment which considers the potential health issues and risks associated with EMF produced by the wind farm and associated electrical infrastructure will be undertaken during the EIS.
Bushfire	Bushfire Prone Land – Category 2 occurs directly to the west of the Subject Land, and Category 3 occurs 3.5km south. These are considered the second and third highest risk for bush fire.	Wind farms generally pose a low risk of starting bushfires, and the Proposal would employ proven and mature technology for wind turbine generators and associated ancillary electrical infrastructure. Access to the site and surrounding areas will be improved, reducing response times to local fires.	The EIS will provide thorough consideration of bushfire risk and propose mitigation measures. Development of defensible set back buffers, access and other protection measures in consultation with the Rural Fire Service will be investigated to ensure bush fire safety.
Blade Throw	Not currently relevant.	Blade throw is considered low risk during the operation phase, as the Proposal would employ proven and mature wind turbine technology. However, the risks from blade throw include damage to infrastructure and injury.	The EIS will provide thorough consideration of blade throw impacts.
Battery Storage	Not currently relevant.	Batteries pose a potential fire or contamination risk to the Development Site and surrounds.	An assessment of hazard and risk would be assessed in the EIS as per SEPP 33 – Hazardous and Offensive Development. A Preliminary Hazards Assessment will be undertaken as part of the EIS.
Waste management	Not currently relevant.	The Proposal would utilise a variety of materials during the construction phase, and generate several waste streams including excavated material.	The EIS will provide thorough consideration of waste management impacts and proposed mitigation measures during construction and operation.

Issue	Existing environment	Potential impacts	Investigation strategies
		Limited operational waste will be associated with the Proposal. Waste management constraints are considered manageable.	

7. Response to key issues and constraints

This section provides a summary of the key constraint areas identified through the preliminary assessment and consultation that has occurred to date. It outlines how Windlab is responding to these as the development of the Proposal progresses.

Based on the information provided in Sections 4 and 6, and commensurate with potential risk, the key issues for investigation are summarised in Table 7-1 and Figure 7-1 (where mappable) and include:

- Visual Amenity
- Noise Amenity
- Biodiversity
- Aboriginal Heritage

These areas have sensitive features that require detailed assessment in accordance with the SSD Guidelines (DPIE, 2021). The further investigation of these issues will shape the development of the Burrawong Wind Farm and ensure that the detailed Proposal presented in the EIS is responsive to its environmental and social context. They may require avoidance or other detailed mitigation strategies to be considered.

A precautionary approach is adopted at this early stage, and where uncertainty or information gaps exist, a higher constraints rating has been applied. These areas will be prioritised for further specialist investigation in the EIS, which may reduce the area of constraint.

Other areas that are considered low and moderate constraint are not presented in this section. These areas may require specific management protocols and will be investigated commensurate with risk in the EIS, as outlined in Section 6.

Table 7-1 includes how Windlab will respond to each issue moving forward. Further detail regarding how the preliminary layout and proposed project design has responded to these constraints is detailed in Section 2.4.

Table 7-1 Response to preliminary 'high constraint' areas

Key Issue	Features	Windlab's Response
Visual Amenity	Based on preliminary site investigations, three close residential receivers have potential for high visual impacts (see Figure 7-1). The visibility of the Proposal is likely to extend beyond the generally defined Study Area in the Visual Bulletin of 8km due to the flat terrain and scale of the proposed wind turbines.	As part of the site selection process, Windlab selected a Development Site that minimises the number of close residential receivers. While there are a low number of close residential receivers for a wind farm of this scale, it is acknowledged that the Proposal has the potential for high visual impacts on those close residential receivers identified in Table 6-1 and Figure 7-1. In response to the preliminary site investigations and feedback from DPIE at the Scoping Meeting, the Study Area has been extended beyond 8km (DPIE, Wind Energy: Visual Assessment Bulletin, 2016) to include detailed assessment from key viewpoints and townships (in particular the townships of Kyalite and Balranald, Yanga National Park, dwellings along the Edward River and dwellings within the National Park Estate). This will ensure more receivers are captured in the assessment and consideration of mitigation strategies. As part of the EIS, Windlab will: • Complete a detailed visual impact assessment • Prioritise consultation with affected stakeholders • Revise infrastructure layout to minimise impacts • Develop mitigation strategies for residual impacts with input from affected residents and specialists, with a priority on negotiated agreements.

Key Issue	Features	Windlab's Response
Noise Amenity	Based on preliminary site investigations, two close residential receivers have potential for high noise impacts.	As above, as part of the site selection process, Windlab selected a Development Site that minimises the number of close residential receivers. While there are a low number of close residential receivers for a wind farm of this scale, it is acknowledged that the Proposal has the potential for high noise impacts on those close residential receivers identified in Table 6-2. As part of the EIS, Windlab will: • Complete a detailed noise impact assessment • Prioritise consultation with affected stakeholders • Revise infrastructure layout to minimise impacts • Develop mitigation strategies for residual impacts with input from affected residents and specialists, with a priority on negotiated agreements.
Biodiversity	Based on our preliminary site investigations, high value features include: • TEC with an intact overstorey and/or native dominated understorey. • Non-TEC Plant Community Types (PCTs) in good condition • Areas containing a high abundance of hollow bearing trees in a landscape generally devoid of or that has a sparse abundance of canopy species. • High potential candidate species credits habitat (i.e., Hollow dependent species). • Riparian areas and marshlands in moderate to good condition and mapped as vulnerable land on the Native Regulatory Map.	In response to the preliminary site investigations, Windlab has developed a preliminary layout for the Proposal that avoids most native vegetation. As part of the EIS, Windlab will: • Carry out detailed flora and fauna surveys, including 'utilisation surveys' to understand fauna movements and potential collision risks. • Complete a Biodiversity Assessment Report (BDAR) in consultation with Biodiversity, Conservation and Science (BCS) and National Parks and Wildlife Services (NPWS). • Complete a collision risk assessment, specific to birds and bats and outline a monitoring strategy appropriate to the proposal. • Concurrently, revise infrastructure layout to avoid and minimise impacts, concentrate development in areas of non native or degraded native vegetation. • Calculate and commit to meeting the offset obligation for the proposal, as required under the BC Act. • Develop specific additional mitigation strategies for residual impacts with input from specialists.

Key Issue	Features	Windlab's Response
Aboriginal Heritage	Based on our preliminary investigations, areas of high significance or potential significance include: • Registered AHIMS sites and archaeological sensitive landforms (such as waterways). • Thirteen sites for avoidance include burials, modified trees and hearths. • Elevated areas, areas of known site clusters, paleochannels and lunette features, red sandy rises and areas on the margins of wetlands and drainage depressions.	In response to the preliminary site investigations, Windlab has developed a preliminary layout for the Proposal that avoids all previously registered AHIMS sites. As part of the EIS, Windlab will: • Complete an Aboriginal Cultural Heritage Assessment (ACHA), including prescribed consultation with Registered Aboriginal Parties (RAPs) • Concurrently, revise infrastructure layout in response to findings (which may include additional areas). • Develop mitigation strategies in consultation with RAPs which could range from avoidance to salvage programs to more intensive survey including test pits.

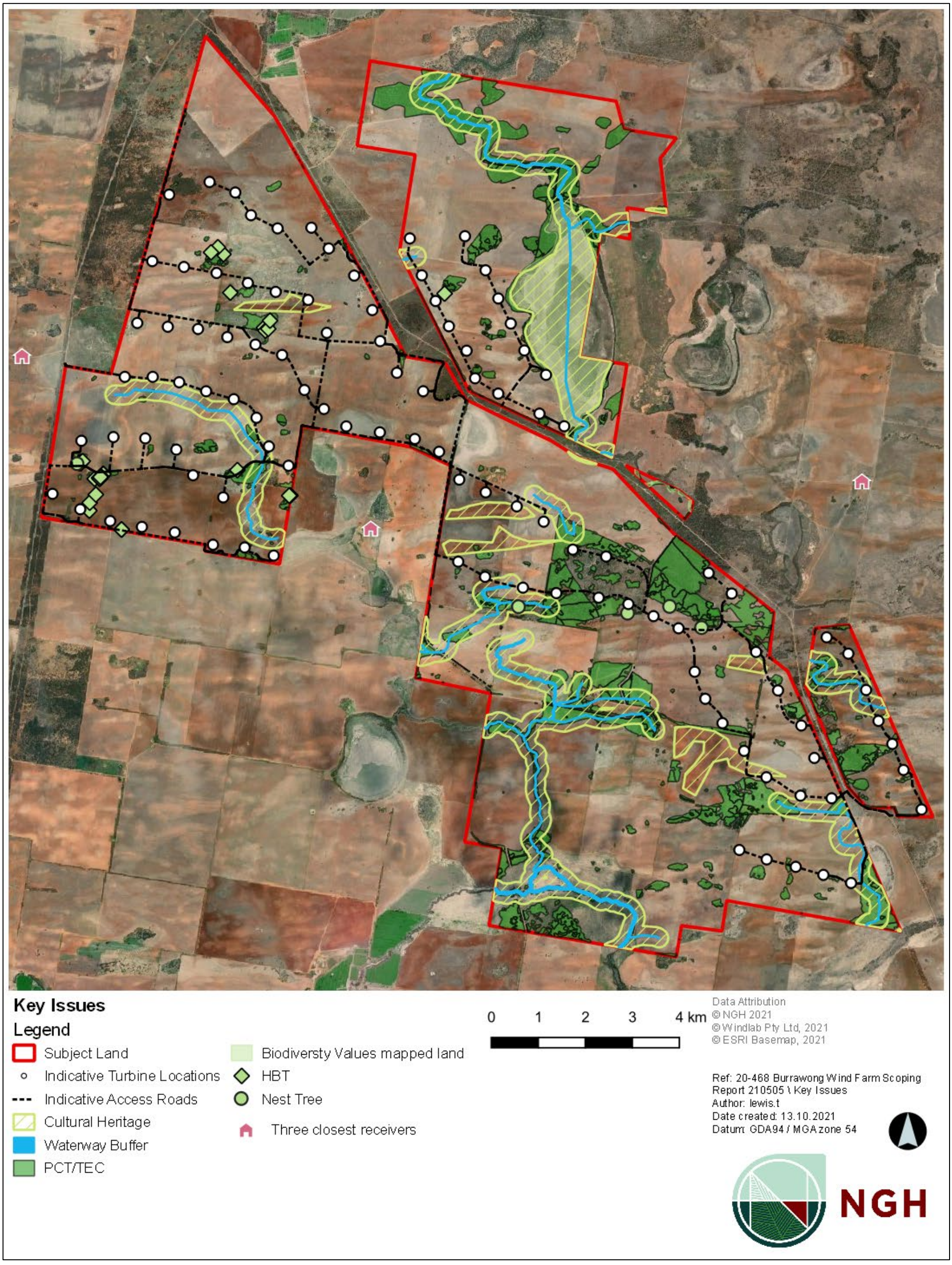

Figure 7-1 Key issues map

8. Conclusion

This Scoping Report has provided an outline of the proposed Burrawong Wind Farm and has established the planning context of the Proposal. The detailed Proposal will be assessed under Part 4 of the EP&A Act and classed as State Significant Development under *State Environmental Planning Policy (State and Regional Development) 2011*.

Located in the proposed South-West Renewable Energy Zone and with its advantageous site characteristics, the Proposal has the potential to deliver cheap, clean and reliable energy for New South Wales consumers, while generating significant investment in the Murray River and Balranald regions. In addition, the Proposal has the potential to be construction ready by 2023 and would provide additional generation capacity that supports the scheduled retirement of coal generation.

Benefits of the site include the potential for low capital costs, compatibility with existing land use, minimal number of close residential receivers, good access to both existing and proposed electricity transmission infrastructure, and positive engagement with the local community.

The report provides the preliminary infrastructure layout including an upper limit of 107 wind turbines. The preliminary infrastructure layout will be refined following more detailed investigations in response to identified constraints.

Preliminary assessment and consultation have identified key environmental constraints that require further investigation in the EIS. This further investigation will shape the development of the Burrawong Wind Farm and ensure that the detailed Proposal presented in the EIS is responsive to its environmental and social context.

A precautionary approach has been adopted at this early stage of investigation to ensure a comprehensive assessment of potential impacts. Potential environmental impacts associated with the Proposal have been categorised as ‘key issues’ requiring detailed assessment or ‘other issues’ requiring standard assessment. Based on this preliminary environmental assessment, an indicative scope for the EIS has been developed, focusing on the key issues:

Key issues with potential for high impacts (high constraint):

- Visual amenity
- Noise amenity
- Biodiversity
- Aboriginal heritage

Key issues with potential for moderate impacts (moderate constraint):

- Traffic impacts
- Aviation
- Telecommunications
- Social impacts
- Cumulative impacts

Other issues are expected to be able to be addressed through desktop investigation to inform appropriate mitigation and management measures.

Given the nature and scale of the Proposal, an EPBC referral is considered likely and recognition of the need to address Commonwealth matters is therefore sought in the SEARs. A referral will be lodged shortly with the DAWE. Further biodiversity studies undertaken for the EIS will confirm biodiversity impacts and mitigation strategies.

Preliminary consultation has provided valuable early input into identifying opportunities and constraints for the Proposal. At this early stage, the response from the community has been positive. Ongoing consultation with the community and other stakeholders will be used to understand concerns and ensure that the Proposal presented in the EIS responds to these concerns.

The EIS will be prepared in accordance with the SEARs once received. Mitigation measures will be developed for inclusion in the EIS and will address the management of key issues and other issues identified in the assessment process.

The project specific SEARs for the Proposal are now sought on the basis of this preliminary assessment.

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Appendix A Background searches

Appendix B Preliminary Landscape and Visual Impact Assessment (PVIA)

Appendix C Land Category Assessment

Appendix D Social Baseline and Initial Evaluation of Social Impacts

Appendix E Scoping Summary Table

Matter	**Scoping report reference** (where description of potential impact is included)	***Scale of impact**	***Nature of impact**	***Sensitivity of receiving environment**	**Mitigation measures required**	**Level of assessment**	***CIA**	**Engagement**	**Relevant government plans, policies and guidelines**
Amenity - visual	Section 6.2.1	High	Direct Cumulative Perceived	Sensitive (change in visual amenity of nearby residents and townships)	Likely	Detailed	Yes	Specific	• Wind Energy: Visual Assessment Bulletin 2016 (NSW Government)
Amenity - noise	Section 6.2.2	High	Direct Cumulative Perceived	Sensitive (amenity of nearby residents)	Likely	Detailed	Yes	General	• State Environmental Planning Policy (Infrastructure) 2007 • Wind Energy: Noise Assessment Bulletin 2016 (NSW Government) • Noise Policy for Industry (2017) (NSW Environment Protection Authority) • Interim Construction Noise Guidelines 2009 (Department of Environment, Climate Change) • NSW Road Noise Policy 2011 (Department of Environment, Climate Change and Water) • Assessing Vibration: A Technical Guideline 2006
Biodiversity	Section 6.2.3	High	Direct Indirect Cumulative	Sensitive (environmental value of high risk species, biodiversity)	Likely	Detailed	Yes	General	• NSW Biosecurity Strategy 2013-2021 • Biodiversity Assessment Method (BAM) (NSW Government, 2020)
Heritage - Aboriginal	Section 6.2.4	High	Direct Indirect Cumulative Perceived	Sensitive (cultural value to Traditional Custodians)	Likely	Detailed	Yes	Specific	• Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW 2011 • Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 • Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW 2010
Access – traffic	Section 6.2.5	Moderate	Direct Indirect Cumulative	Sensitive (lifestyle disturbance due to increased traffic volumes during construction))	Likely	Detailed	Yes	Specific	• Austroads Guidelines for Road Design (Austroads) • Austroads Guidelines for Traffic Management (Austroads) • Guide to Traffic Management – Part 3 Traffic Studies and Analysis (Austroads, 2013)
Hazards and risks - aviation	Section 6.2.6	Moderate	Direct	Sensitive (lifestyle disturbance from potential impact on agricultural and recreational aviation)	Likely	Detailed	No	Specific	• National Airports Safeguarding Framework Guideline D: Managing the Risk of Wind Turbine Farms as Physical Obstacles to Air Navigation (DITRDC, 2019)

Matter	**Scoping report reference** (where description of potential impact is included)	***Scale of impact**	***Nature of impact**	***Sensitivity of receiving environment**	**Mitigation measures required**	**Level of assessment**	***CIA**	**Engagement**	**Relevant government plans, policies and guidelines**
Hazards and risks - telecommunications	Section 6.2.7	Moderate	Direct	Sensitive (lifestyle disturbance due to interference with communication signals)	Likely	Detailed	No	Specific	• NSW Wind Energy Guideline for State Significant Wind Development (Department of Planning and Environment, 2016)
Social impacts	Section 6.2.8 Appendix D	Moderate	Direct Indirect Cumulative Perceived	Sensitive (social, environmental and economic values of local community)	Likely	Detailed	Yes	Specific	• Social Impact Assessment Guidelines for State Significant Projects (Department of Planning Industry and Environment, 2021) • Undertaking Engagement Guideline for State Significant Projects (Department of Planning Industry and Environment, 2021)
Cumulative impacts	Section 6.2.9	Moderate	Direct Indirect Perceived	Sensitive (social, environmental and economic values of local community	Likely	Detailed	Yes	General	• Cumulative Impact Assessment Guidelines for State Significant Projects (Department of Planning Industry and Environment, 2021)
Land - soil and contamination	Section 6.3	Low	Direct Indirect	Sensitive (bare or erodible soils as well as fertility of soils)	Likely	Standard	No	General	• The Land and Soil Capability Scheme (Office of Environment and Heritage, 2012) • Soil and Land Survey Handbooks • Managing Urban Stormwater: Soils and Construction Volume 1 (Landcom, 2004) • Managing Urban Stormwater: Soils and Construction Volume 2 (Department of Environment and Climate Change, 2008) • Agricultural Land Use Mapping Resources in NSW
Land - land use compatibility	Section 6.3	Low	Direct Indirect	Sensitive (onsite agricultural activities; local agricultural economy)	Likely	Standard	No	General	• Agricultural Land Use Mapping Resources in NSW • The Land and Soil Capability Scheme (Office of Environment and Heritage, 2012)
Water – hydrology and groundwaters	Section 6.3	Low	Direct Indirect	Sensitive (local hydrology and water quality values)	Likely	Standard	No	General	• Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZG 2018) • NSW Water and River Flow Objectives (NSW Government, 2006) • Floodplain Risk Management Guidelines (Department of Environment and Climate Change, 2016) • Floodplain Development Manual: The management of flood liable land (NSW Government, 2005) • Managing Urban Stormwater: Soils and Construction Volume 1 (Landcom, 2004) • Managing Urban Stormwater: Soils and Construction Volume 2 (Department of Environment and Climate Change, 2008) • NSW State groundwater dependent ecosystem policy (Department of Land, Water and Climate, 2002)

Matter	**Scoping report reference** (where description of potential impact is included)	***Scale of impact**	***Nature of impact**	***Sensitivity of receiving environment**	**Mitigation measures required**	**Level of assessment**	***CIA**	**Engagement**	**Relevant government plans, policies and guidelines**
Heritage - historic	Section 6.3	Low	Direct Indirect	Sensitive (heritage values)	Likely	Standard	No	General	• NSW Skeletal Remains: Guidelines for Management of Human Remains (Heritage Office, 1998)
Air - air quality and climate	Section 6.3	Low	Direct Indirect	Sensitive (local air quality)	Likely	Standard	No	General	• NSW Climate Change Policy Framework (Office of Environment and Heritage, 2016) • National Greenhouse Accounts Factors (Australian Government, 2021)
Hazards and risks - EMFs	Section 6.3	Low	Direct Perceived	Sensitive (amenity of nearby residences)	Likely	Standard	No	General	• Latest advice of the National Health and Medical Research Council
Hazards and risks - bushfire	Section 6.3	Low	Direct Indirect	Sensitive (safety)	Likely	Standard	No	General	• Planning for Bushfire Protection (NSW Rural Fire Service, 2019)
Hazards and risks - blade throw	Section 6.3	Low	Direct	Sensitive (safety)	Likely	Standard	No	General	• Applicable international standards for design of wind turbine components
Hazards and risks - battery storage	Section 6.3	Low	Direct Indirect Perceived	Sensitive (safety)	Likely	Standard	No	General	• State Environmental Planning Policy No 33—Hazardous and Offensive Development (1992 EPI 129) • Hazardous and Offensive Development Application Guidelines: Applying SEPP 33 (Department of Planning, 2011) • Assessment Guideline: Multi-level Risk Assessment (Department of Planning and Infrastructure, 2011) • Hazardous Industry Planning Advisory Paper No 6: Hazard Analysis (Department of Planning, 2011)
Hazards and risks - waste	Section 6.3	Low	Direct Indirect	Sensitive (safety, environmental value)	Likely	Standard	No	General	• Waste Classification Guidelines (DECCW, 2009)

*Scale of impact – Refer to Appendix C of Appendix A to the State Significant Development Guidelines – Preparing a Scoping Report (DPIE, 2021). High, moderate and low are based on the severity of the impact, the geographical location and the duration of the impact.

*Nature of impact - Refer to Appendix C of Appendix A to the State Significant Development Guidelines – Preparing a Scoping Report (DPIE, 2021). Direct, indirect, cumulative and perceived represent the nature of the impacts of the proposal.

*Sensitivity of the receiving environment - Refer to Appendix C of Appendix A to the State Significant Development Guidelines – Preparing a Scoping Report (DPIE, 2021). Sensitivity refers to: the degree of sensitivity expressed in legislation or relative to adopted standards, value to society; and