Scoping Report

Coonerang Wind Farm

August 2023

Project Number: 22-056

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Acronyms and abbreviations

ACHA	Aboriginal Cultural Heritage Assessment
AEMC	Australian Energy Market Commissions
AEMO	Australian Energy Market Operator
AHIMS	Aboriginal Heritage Information Management System
AHIP	Aboriginal Heritage Impact Permit
BAM	Biodiversity Assessment Methodology
BC Act	*Biodiversity Conservation Act 2016* (NSW)
BDAR	Biodiversity Development Assessment Report
BESS	Battery Energy Storage System
BOM	Australian Bureau of Meteorology
BPL	Bushfire Prone Land
BSAL	Biophysical Strategic Agricultural Land
CEMP	Construction environmental management plan
CIV	Capital Investment Value
CSP	Community Strategic Plan
Cwth	Commonwealth
DCCEEW	Dept of Climate Change, Energy, the Environment and Water
DPE	Department of Planning and Environment (NSW)
DPI	Department of Primary Industries
EEC	Endangered ecological community – as defined under relevant law applying to the Project
BCS	Biodiversity Conservation and Science Division
EIS	Environmental Impact Statement
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999* (Cwth)
EP&A Act	*Environmental Planning and Assessment Act 1979* (NSW)
FM Act	*Fisheries Management Act 1994* (NSW)
GIS	Geographical Information Systems
ha	hectares
Heritage Act	*Heritage Act 1977* (NSW)
IBRA	Interim Biogeographic Regionalisation of Australia
IPC	Independent Planning Commission
ISP	Integrated System Plan

kV	Kilovolt
km	kilometres
LALC	Local Aboriginal Land Council
LCU	Landscape Character Units
LEP	Local Environment Plan
LGA	Local Government Area
LUCRA	Land Use Conflict Risk Assessment
m	metres
MW	Megawatt
NPW Act	*National Parks and Wildlife Act 1974* (NSW)
NSW	New South Wales
O&M	Operations and Maintenance
OEH	(Former) Office of Environment and Heritage (NSW) (now EES)
PCT	Plant Community Type
PVIA	Preliminary Visual Impact Assessment
RAPs	Registered Aboriginal Parties
REP	Regional Environmental Plan
RET	Renewable Energy Target
REZ	Renewable Energy Zone
SAII	Serious and Irreversible Impact
SEARs	Secretary's Environmental Assessment Requirements
SEPP	State Environmental Planning Policy
SHR	State Heritage Register
SIA	Social Impact Assessment
SSD	State Significant Development
TEC	Threatened Ecological Community
ZVI	Zone of Visual Influence

Table of definitions for the Scoping Report

Project	Coonerang Wind Farm - the proposed construction, operation and decommissioning of a wind farm and ancillary infrastructure including battery storage. It would have a capacity of approximately 150MW AC, generated from approximately 25 wind turbines; approximately 165m hub height and approximately 266m tip height.
Applicant	Someva Pty. Ltd (ABN 78 617 643 584) of Suite 12 20 Bungan Street Mona Vale NSW 2103.
Subject land	All lots affected by the Project summarised in Chapter 3.1.
Development footprint (indicative only)	The area of land that would be directly impacted by the Project (construction and operation, including all temporary and permanent impacts). The Development Footprint is currently indicative. It would be refined within the Subject land pending the results of further investigations and consultation.

1. Introduction

1.1 Project summary

The Coonerang Wind Farm Project would comprise the construction, operation and eventual decommissioning of a utility scale wind farm and associated infrastructure (including battery storage).

It would be located approximately 11km south-east of Cooma and 8.5km northwest of Nimmitabel. The site is within the Snowy Monaro Regional Local Government Area (LGA) in NSW, and is approximately 130km south of Canberra, ACT.

Important regional features include extensive rural grazing areas, large water bodies used for power generation and recreation, a major transport corridor connecting Sydney to Melbourne, via Canberra and National Parks and Nature Reserves. Refer to Figure 1-1.

The Project is located off Springs Road, Rock Flat, NSW. The Subject land totals approximately 6,713ha owned by four host landowners as well as some land owned by the Crown. Details of the relevant lots are included with the Project description in Section 3.

The Project's key components would include:

- Approximately 25 wind turbines with a combined generating capacity of up to approximately 150 Megawatts (MW) AC.
- A 100MW / 400MWh Battery Energy Storage System (BESS).
- Electricity transmission infrastructure including:
    - Onsite underground and overhead lines.
    - Onsite substation.
    - Connection to existing 132kV Essential Energy infrastructure.
- Access:
    - Primary access point off the Snowy Mountains Highway.
    - Internal access roads.
    - Upgrades to public roads along the haulage route.

Subject to all required approvals being obtained, the Applicant aims to commence construction in mid-2025 so that the Project can be delivering power to the grid by late 2026. The operational life of the Project is expected to be 30 to 35 years, following which the site would either decommissioned or refurbished and re-powered, based on prevailing energy markets at the time.

1.2 The Applicant

Someva is a specialist renewable energy developer focused on wind farm development in NSW throughout the full project life cycle. Someva has over 1GW of experience in the development, financing, construction, and operation of renewable energy assets in Australia and South-east Asia. Someva partners with strategic long-term investors in the development, construction and operation of renewable energy assets in Australia.

Someva develop renewable energy projects with a focus on creating new income opportunities for local landowners, supporting communities grow into new industries, and providing secure lower cost electricity for the needs of future Australian generations.

Table 1-1 Applicant's business details

Company	Someva Pty Ltd
ABN	78 617 643 384
Registered Address	Suite 12 20 Bungan Street Mona Vale NSW 2103
Office Address	38 Young St, Sydney NSW 2000

1.3 Project objectives

The Project aims to provide a meaningful contribution to NSW's transition to renewable energy and is aligned with Federal, NSW and local land use policies in this regard. The increase in renewable energy generation, supported by appropriate storage and existing transmission infrastructure, will reduce Australia's reliance on fossil fuels for electricity generation, prevent shortfalls in electricity supply as coal fired power stations close and contribute to Australia's Nationally Determined Contribution to reduce greenhouse gas emissions 43% below 2005 levels by 2030, and achieve net zero emissions by 2050 under the Paris Agreement.

The Project will be one of several important regional Projects that together will support the Snowy-Monaro region as a net exporter of clean renewable power. It aligns with the South East and Tablelands Regional Plan 2036 to position the region as a hub of renewable energy excellence.

Specifically, the Coonerang Wind Farm will seek to:

- Optimise the generation and storage of renewable energy using technologies appropriate to the site, specifically:
    - Harness the strong wind resources identified at this site
    - Utilise existing civil resources including excellent access, transmission infrastructure, existing quarry materials and rolling terrain, to reduce disturbance areas and impacts
    - Harness and build on the existing local skills in the Snowy-Monaro region.
- Be responsive to the site's environmental constraints and ensure the necessary impacts of the Project are minimised and managed acceptably.
- Be responsive to local social concerns and build in broader community benefits, assuring social license to operate this important long-term Project within the community.

Strategies to minimise impacts and reflect local values will be further investigated as part of detailed environmental investigations and community engagement process.

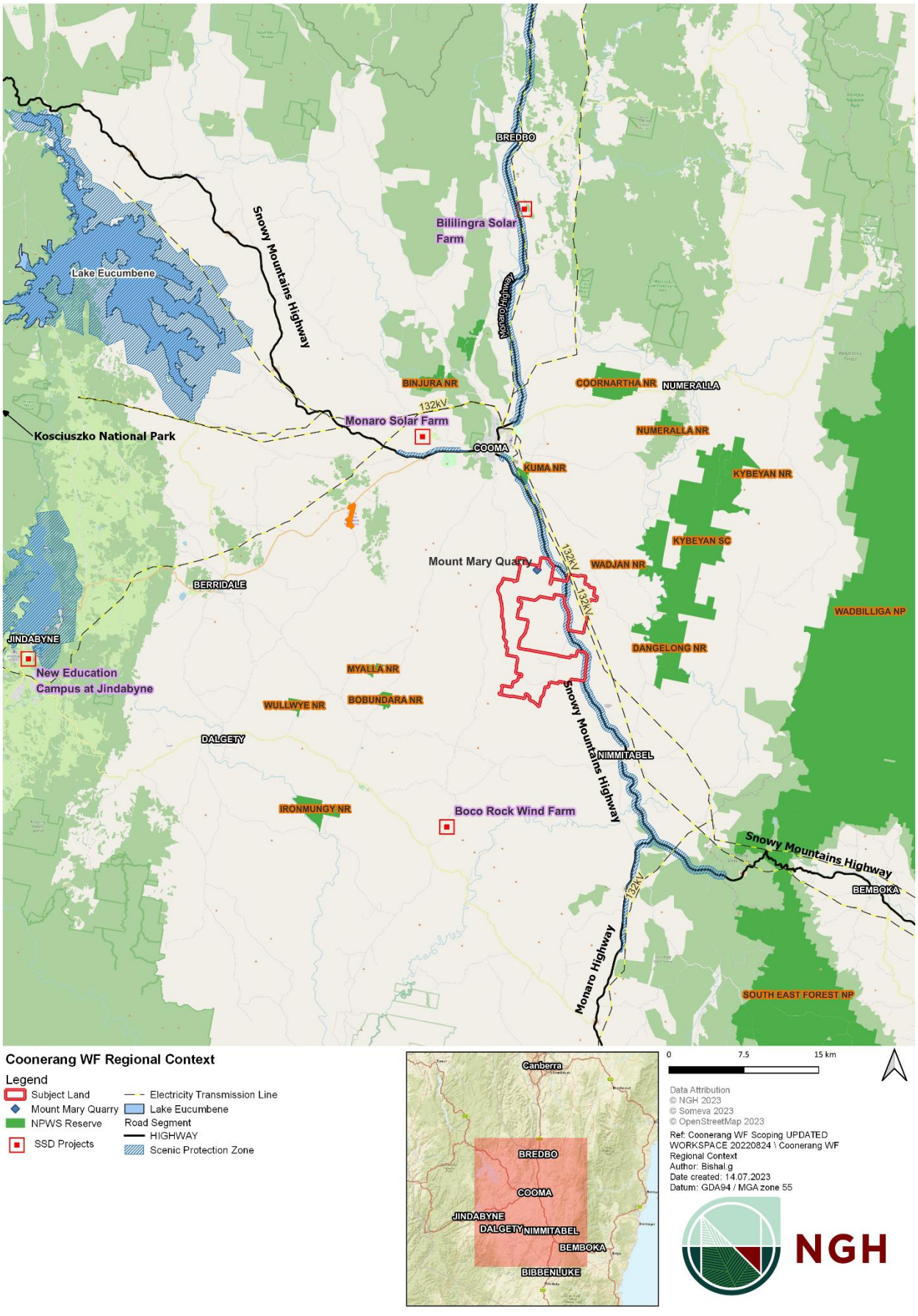


Figure 1-1 Regional setting

1.4 Project background

An initial project layout of **45** wind turbine sites was developed during consultation with local landowners, in consideration of the number of turbines that the originally investigated Subject Land could potentially support. This initial project layout was used for consultation and further refined in consultation with host landowners and after reviewing grid connection capacity.

A concept layout consisting of **34** potential wind turbine sites is presented in this Scoping Report which has been developed in response to changes to host landowners, preliminary community consultation, biodiversity and visual amenity investigations. This concept layout will be further developed and reduced to approximately **25** wind turbine sites as ongoing consultation and assessment is carried out which represent the best balance of:

- optimising energy yield and constructability factors, and
- minimising environmental and amenity impacts.

This approach will ensure that the Project continues to respond to the outcomes of further project design, detailed environmental investigations and consultation with the community and key government agencies to confirm the approximately **25** wind turbines sites which will fully assessed in the Environmental Impact Statement (EIS). The aim is to develop a Project that responds appropriately to its context.

The key matters that have been applied to avoid and minimise the potential impacts of the Project to date include:

Community

- The overall number of turbines being considered for the site has reduced following consultation with host landowners. Specifically, the turbines nearest the northwest residences in the initial layout (which account for half of all residents living within 5kms of the Subject Land) have been removed from the original concept layout of 45 turbines used to consult the community.
- Co-operative design of the neighbour benefits program is proposed with Non-Associated Dwellings. This will seek to address the sharing of the financial benefits of the Project in the context of specific community concerns.

Biodiversity

- Higher value areas have been identified, in consideration of native vegetation integrity and threatened species habitat potential. Specifically, threatened reptile habitat in the north of the site has been avoided.
- The concept layout seeks to utilise the most modified areas of the site with a history of disturbance for potential compound / laydown areas.

Catchment processes

- Best practice buffers on waterways and associated riparian areas have been adopted.

Further work to mitigate potential environmental impacts of the Project will continue during refinement of the concept layout and detailed investigations. Throughout the assessment process, upper range parameters and impact areas will be used to ensure that the assessment remains conservative and robust approach while providing the level of flexibility consistent with the *State Significant Development Guidelines – Preparing an Environmental Impact Statement* (DPE, 2022) which acknowledges:

> *… with some large, complex Projects this flexibility is often essential as it is difficult, if not impossible, to deal with all aspects of the design of these Projects at the EIS stage.*

The conservative and robust assessment approach adopted will also allow for flexibility to further reduce environmental impacts and account for incremental improvements in wind turbine technology during the assessment process and post-approval. For example; flexibility will be retained in 'micro-siting' the final turbine locations, as well as specific technology options and construction methods. The intention is to ensure the Project can accommodate these changes and thereby optimise energy yield and efficiencies, within the parameters of its approval.

1.5 Related development

Not applicable to this Project.

1.6 Purpose of this document

The Applicant is seeking State Significant Development (SSD) consent under Division 4.7 of Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act). The Project has a capital investment value (CIV) exceeding $30 million and is therefore classified as State Significant Development (SSD).

This Scoping Report has been prepared to support a request to the Department of Planning and Environment (DPE) for the Secretary's Environmental Assessment Requirements (SEARs). The SEARs will set out the matters to be assessed in the Environmental Impact Statement (EIS) for the Project.

This document sets out the strategic context of the Project and its justification. It outlines the Project, including relevant lots, infrastructure components, and indicative proposed timing. It outlines the environmental planning pathway for assessment of the Project under the EP&A Act and identifies the key environmental issues that may be associated with the Project and how these are proposed to be assessed in the EIS. Refer to Appendix A for a Scoping summary that separates matters requiring detailed, standard and cumulative impact assessment.

This document has been informed by desktop analysis, preliminary site inspections, and preliminary community and stakeholder engagement. The concept layout presented in this Scoping Report will be refined in response to further detailed investigation and consultation during the EIS stage.

This Scoping Report has been prepared with reference to the following guidelines:

- *State Significant Development* Guidelines (DPE, 2021), specifically section 4.4 and *State significant development guidelines – preparing a scoping report*: Appendix A to the SSD guidelines (DPE, 2021)
- *Social Impact Assessment Guidelines: For State Significant Projects* (DPE, 2021)
- Section 4.2 of the *Wind Energy Guideline: For State significant wind energy development* (DPE, 2016), including the additional technical supplements:
    - *Wind Energy: Noise Assessment Bulletin for State significant wind energy development* (DPE, 2016)
    - *Wind Energy: Visual Assessment Bulletin for State significant wind energy development* (DPE, 2016a).

2. Strategic context

The strategic context of the Project is set out below in terms of:

- Alignment with the energy transition; specifically, the Australian Energy Market Operator's 2022 Integrated System Plan (AEMO, 2022a) and AEMO's 2022 Electricity Statement of Opportunities (AEMO, 2022b). A nine-fold increase is required in renewable energy generation to meet increasing demand and thermal power retirement.
- The Project's alignment with the federal, state and local renewable energy policy frameworks, land use and economic policies.
- The regional setting of the Project, in consideration of key environmental and community values.

2.1 Alignment with the energy transition

Historically, coal-fired and gas peaking power plants (thermal power) have been used to meet New South Wales' (NSW) electricity needs. Despite the increasing use of wind and solar power, fossil fuel generation still produced over 70% of electricity in the National Electricity Market (NEM) in 2020 (Australian Energy Regulator, 2021). However, this trend is changing, as 16 gigawatts (GW) of thermal generation (equivalent to 61% of the current coal fleet in the NEM) is expected to retire over the next two decades, and new large-scale wind and solar capacity of 26–50GW is required to replace this (Australian Energy Regulator, 2021).

The Australian Energy Market Operator's, 2022 Integrated System Plan (AEMO, 2022a), states the optimal development pathway for the NEM involves a nine-fold increase in utility-scale variable renewable energy. The AEMO 2022 Electricity Statement of Opportunities (AEMO, 2022b) provides updated forecasts for demand and supply of electricity, revealing increased consumption and maximum peak demands from industrial load expansions. This will require additional generation commitments and pose challenges for reliability in some regions. Without further investment beyond present commitments, reliability gaps are expected in NSW in the short to medium term as aging coal fired power stations are closed, starting from 2025–26. In the longer term, reliability gaps are forecast in all NEM mainland regions before 2031–32.

The AEMO 2022 Electricity Statement of Opportunities (AEMO, 2022b) stresses the urgent need to progress anticipated generation, storage, and transmission developments to support the ongoing energy transition. With Liddell Power Station closing earlier this year and a further four planned coal-fired generator retirements in the next decade, as well as the potential for further closures as well, there is a pressing and widespread need for renewable energy investment across the NEM.

A media release from the NSW Government Treasurer and Minister for Energy dated 4 October 2022 acknowledges that recent world events have put enormous pressure on power prices, highlighting the need to fast-track plans to replace aging power stations and reduce reliance on volatile international commodity prices (NSW Government, 2022).

These findings demonstrate the clear need for the proposed Project. The Project aims to meet the increasing demand for energy in the National Electricity Market, address reliability challenges, and support the ongoing energy transition. The Project doesn't require significant grid upgrades and avoids potential delays from proposed grid upgrades being undertaken across the NEM to enable new supply of renewables to reach customers. If the Project is approved it can provide new renewable energy generation within 18 months of commencement of construction, aligning with AEMO's call to urgently progress projects.

2.2 Alignment with Government policy

The Project aims to provide a meaningful contribution to NSW's transition to renewable energy and is well aligned with Federal, NSW and local land use policies in this regard.

2.2.1 Climate Change Act 2022

On 14 September 2022, the *Climate Change Act 2022* (Cwth) implemented the Commonwealth Government's Nationally Determined Contribution commitment under the Paris Agreement to reduce greenhouse gas emissions 43% below 2005 by 2030 and achieve net zero emissions by 2050 into domestic law. The Act supports the Government's Powering Australia Plan, which is focused on creating jobs, cutting power bills and reducing emissions by boosting renewable energy.

2.2.2 Paris Agreement 2030 targets

The Paris Agreement is a legally binding international treaty on climate change adopted by 196 Parties (including Australia) at the Conference of Parties 21 in Paris which entered into force on 4 November 2016 (United Nations Climate Change, 2018). Australia's current Nationally Determined Contribution under the Paris Agreement is to reduce greenhouse gas emissions 43% below 2005 by 2030 and achieve net zero emissions by 2050. The Project assists in this achieving the emissions reductions objectives Australia has committed to under the Paris Agreement through the generation of electricity from renewables rather than fossil fuels.

2.2.3 Australian Government Renewable Energy Target (RET) 2000

The RET scheme was developed to achieve large-scale renewable generation (LRET) of 33,000GWh in 2020, by encouraging additional generation of electricity from renewable sources, thus reducing emissions of greenhouse gases in the electricity sector. The LRET of 33,000GWh target was met in September 2019, however the scheme will continue to require high-energy users to meet their obligations under the policy until 2030. This Project would assist in meeting requirements for high-energy users required to purchase 'large-scale generation certificates' from large renewable energy power stations (such as the Coonerang Wind Farm).

2.2.4 Net Zero Plan Stage 1: 2020–2030

The Net Zero Plan Stage 1: 2020–2030 sets NSW's action on climate change and sets a target to reach net zero emissions by 2050, with an objective to deliver a 50% cut in emissions by 2030 compared to 2005 levels. This Project would assist the NSW government in reaching these targets by providing a renewable energy source for electricity generation.

2.2.5 NSW Climate Change Policy framework 2050 targets

The NSW Climate Change Policy framework outlines NSW's long-term objectives to achieve net-zero emissions by 2050 and to make NSW more resilient to a changing climate. It guides the NSW Government's policy and programs, including the NSW Climate Change Fund and the NSW Electricity Infrastructure Roadmap. This Project aids in meeting the net-zero emissions by the 2050 target.

2.2.6 NSW Electricity Strategy 2019

The three objectives of the NSW Government for the state's electricity system, as stated in the NSW Electricity Strategy, are:

- Reliability
- Affordability
- Sustainability.

The NSW Government's Electricity Strategy will:

- Improve the efficiency and competitiveness of the NSW electricity market by reducing risk, cost, Government caused delays and by encouraging investment in new price-reducing generation and energy saving technology.
- Prompt Government to act if there is a forecast breach of the Energy Security Target which private sector Projects are unlikely to address. This should be done in a way that minimises costs to consumers and taxpayers and does not give rise to moral hazard risk.
- Ensure that there are appropriate powers available for Government to analyse and respond to electricity supply emergencies, should they arise.

This Project would contribute to the NSW government's plan to achieve the objectives for the electricity system which include reliability, affordability and economic growth and sustainability. The contribution of the Project to local employment and economy will be studied in detail in the EIS.

2.2.7 NSW Electricity Infrastructure Roadmap

The roadmap aims to increase the share of renewable energy generation in NSW to 60% by 2030 and achieve net-zero emissions by 2050. With the retirement of aging coal-fired power stations and increasing demand for electricity, the roadmap recognises the need for new investments in renewable energy infrastructure, including wind farms and battery energy storage systems. The proposed Project can contribute to meeting the state's renewable energy targets and help to ensure a sustainable transition towards a reliable, affordable, and low-carbon electricity future.

2.2.8 Regional and local planning instruments

The Project would address key regional and local planning instruments which aim to grow the renewable energy sector and harness the benefits for the local community.

Southeast and Tablelands Regional Plan 2036

The *Southeast and Tablelands Regional Plan 2036* focuses on the strategic and long-term direction for the Southeast and Tablelands Region. Broadly, the plan identifies renewable energy is an identified priority growth sector for the region. The Project would align with a number of the specific goals and directions of the Plan including:

- Direction 6 – Position the region as a hub of renewable energy excellence
- Direction 17 – Mitigate and adapt to climate change.

Snowy Monaro Community Strategic Plan 2042

This plan outlines the community's aspirations and long-term vision of the communities of the Snowy Monaro Regional LGA. The CSP sets out the community's vision, objectives strategies,

priorities, and aspirations. It is a community plan based on information provided by the community. It sets out clear objectives with regard to maintaining and improving the lifestyle of this regional community, specifically:

- Health infrastructure
- Transport infrastructure
- Telecommunication networks
- Civic and recreational infrastructure

The plan provides a clear indication of the type of improvements and benefits that the local community is interested in and which the Project should consider, in terms of ways to support the community in which it would become a long-term member.

SMRC's Draft Rural Land Use Strategy 2022

This Project is consistent with SMRC's Draft Rural Land Use Strategy. The strategy works to balance the interests of agriculture and tourism, ensuring that both can operate without significant impacts on the other as well as elevate the significant environmental values that exist within the region.

The Draft Strategy states that the Council is supportive of further renewable energy projects within the LGA noting:

> "*Existing cleared areas currently used for agriculture, that the land can be easily returned or maintained as somewhat productive agricultural land should be pursued in the first instance. Generally, the development of renewable energy does not sterilise agricultural land; however, locations need to be carefully selected*."

The Draft Strategy advises that wind farms are not suitable in biodiversity corridors; the Project has been designed to avoid biodiversity corridors.

The Project will:

- Rehabilitate areas disturbed during construction and maximise concurrent agricultural practice during the operation of the Project.
- Protect catchment values and biodiversity values.
- Preserve the scenic landscape character from important locations.
- Coexist with existing agricultural with limited disturbance footprint.

As above, this Project is committed to helping Snowy-Monaro position itself in the region as a hub of renewable energy excellence. This is considered to enhance the region's image as an area of significant environmental sensitivity where sustainable development options are encouraged.

SMRC's Regional Economic Development Strategy Update 2023

In 2023, the NSW Government updated the Snowy Monaro Regional Economic Development Strategy (REDS 2023) to reflect updated data and further engagement with councils and communities. The REDS 2023 Update assists governments make policy and investment decisions to enhance resilience and drive sustainable, long-term economic growth in regional NSW.

Renewable energy is one of the key industries generating jobs and growth in the region. It is identified as an "Engine of Growth" and an area of specialisation. Contributing factors to this include local natural resources, human capital, educational infrastructure and strong institutions

and good transport infrastructure. The energy generation sector contributed to the creation of 368 jobs in 2021. The strategy identifies a strength of "higher than average wind speeds across the year, providing good conditions for wind power generation."

The Project could contribute to providing benefits to local businesses and community groups, in particular by ensuring local skills are aligned with employment opportunities created by this Project and other renewable projects in the future.

2.3 Site context

2.3.1 Snowy Monaro region

The Subject Land is situated within the Snowy Monaro Regional LGA in the NSW. The south-eastern highlands within the Monaro subregion are characterised by a cool climate, high elevation, rolling hills and mostly treeless grasslands, both native and modified for agricultural use.

Key regional features include:

- Fertile soils, often in the higher landscape positions, supporting conservation significant native grasslands as well as open woodlands, used for extensive sheep and cattle grazing.
- Expansive national park reserves:
    - Wadbilliga National Park to the east and Southeast Forest National Park to the southwest, where the fertile grassland plateaus transition to rugged escarpment forests.
    - Kosciuszko National Park further to the west, with its unique alpine and montane ecosystems, supporting recreation alongside nature conservation objectives.
- The Monaro Highway and Snowy Mountains Highways, which connect Sydney, via Canberra to the Far South Coast of NSW and Victoria; an important network for freight as well as tourism.
- Important renewable energy projects including:
    - Lake Eucumbene which is part of Snowy Mountains Scheme and is used for hydroelectricity generation.
    - Snowy Hydro 2.0, under construction in the Kosciuszko National Park.
    - Boco Rock Wind Farm, approximately 8km south of the Project,
    - The proposed Monaro Solar Farm and Bililingra Solar Farm, north of the Subject Land.

The regional setting is illustrated in Figure 1-1.

The Snowy Monaro Regional LGA has a population of approximately 21,666 people (ABS, 2022). The region covers includes ten major urban areas, but due to its size has a very low population density of approximately 0.14 persons per km^2. Most residents live near the township of Cooma (ABS, 2022), approximately 11km from the Subject Land. Nimmitabel is the closest town 8.5km south of the Project.

2.3.2 Local features

The majority of the local area is zoned as RU1- Primary Production under Cooma-Monaro LEP and Snowy River LEP as shown in Figure 2-2.

The Subject Land is predominantly used for grazing. Surrounding land is also shown as grazing land, on both native and modified pastures with open woodland remnants and ephemeral lagoons as well as farm dams (Figure 2-1 and Figure 2-3). An active Mount Mary Quarry mines Basalt to the northern side of the site used in the Snowy 2.0 Project.

Rock outcropping which supports threatened reptile populations occurs to the north of the site.

Weeds including a variety of thistles, African Lovegrass and Serrated Tussock are present in many areas locally.

Approximately 40 non-associated dwellings are located within 5.2km of the concept wind turbine locations, in addition to the five associated dwellings located within the Subject Land; all are rural dwellings associated with large land holdings. A further 40 non-associated dwellings are located within 8km of the proposed wind turbines.

The Snowy Mountains Highway bisects the site and includes a narrow 'Scenic Protection Zone' along its alignment to maintain the visual amenity of this major rural road corridor (Cooma-Monaro LEP 2013). Existing transmission line networks follow the highway alignment in this area. A decommissioned railway line also bisects the site.

Initial community consultation carried out to date has identified key community values and interests in relation to the development of a wind farm locally. These include:

- Strongly valued landscape amenity.
- Consideration of the First Nations peoples' connection with the land and the complicated history of forced people movement.
- Equitable sharing of Project benefits.
- Potential for positive and negative impacts on local infrastructure (particularly roads and housing), local businesses (particularly agricultural business resilience) and land values.

The site and surrounds are shown in the following images.

Figure 2-1 Local views

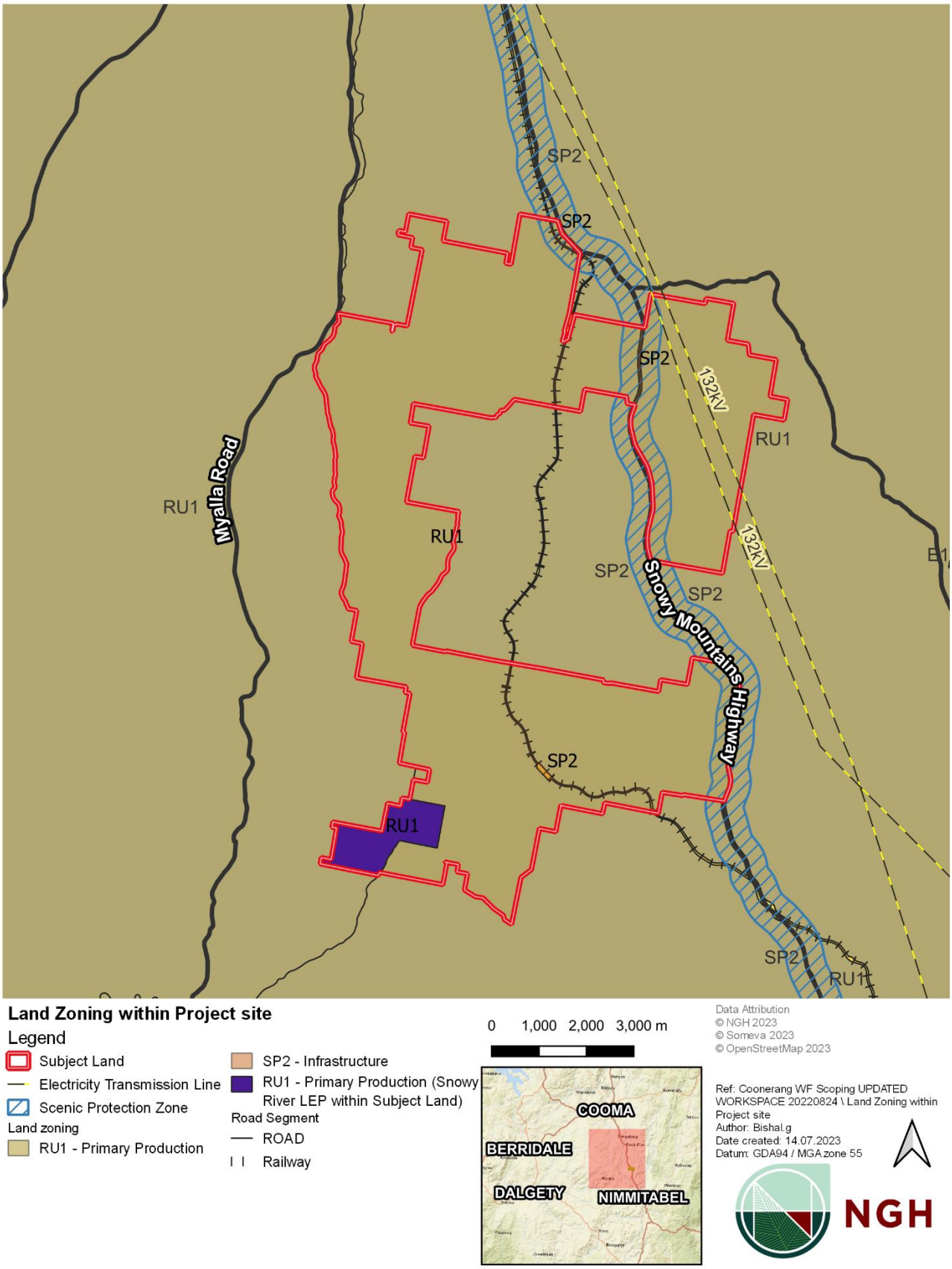


Figure 2-2 Local land zoning; predominantly rural

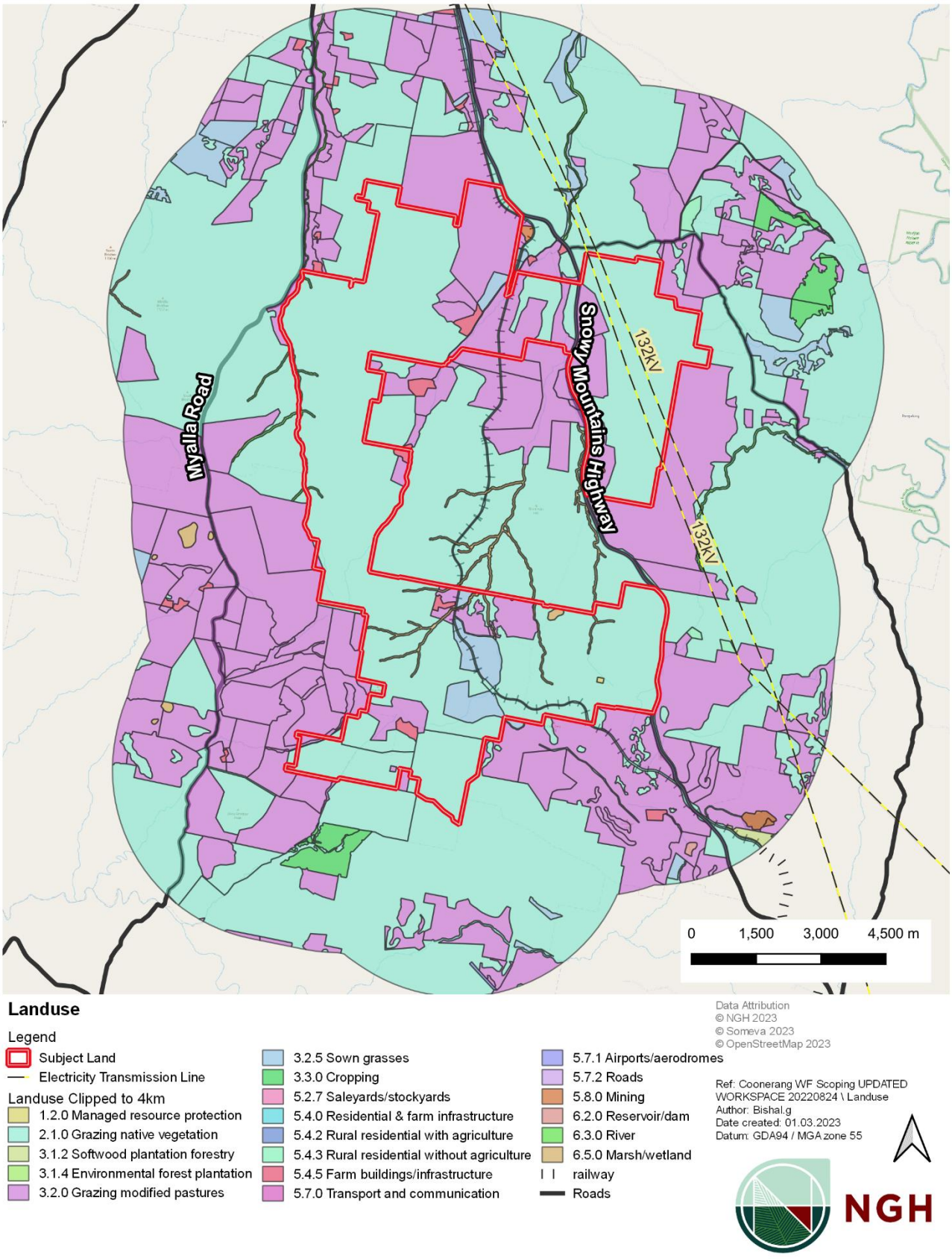


Figure 2-3 Local land use; predominantly grazing lands.

2.4 Project justification

2.4.1 Need for the Project

The NSW market needs electricity as ageing coal-fired power stations reach the end of their operational life. 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.*

As a utility scale energy generation facility, the Project aligns well with key international, national, state, regional and local government plans and strategies, in relation to renewable energy and climate change policy. The Project would:

1. Support international commitments to reduce greenhouse gas emissions and arrest climate change.
2. Support national targets to encourage the additional generation of electricity from sustainable and renewable sources.
3. Support state initiatives to replace retiring aging coal fire power plants and attract renewable energy investment.
4. Support regional initiatives to support an “engine of growth” industry and position the region as a hub of renewable energy excellence.
5. Be compatible with local strategies to balance agriculture, tourism and the environmental values of the area.

2.4.2 Site suitability

The *Best Practice Guidelines: For Implementation of Wind Energy Projects in Australia* (CEC, 2018) notes the importance of demonstrating the site suitability of the proposed wind farm location. Evaluated against these criteria, preliminary investigations suggest the Project is well located to:

- Harness the strong wind resources identified at this site
- Utilise existing civil resources including excellent access, transmission infrastructure, quarry materials and rolling terrain, to reduce disturbance areas and impacts to an indicative 158 hectares.
- Harness and build on the existing local skills in the Snowy-Monaro region
- Be responsive to the site’s environmental constraints and values:
    - Retain agricultural land values and operations.
    - Minimise direct impact through use of existing transmission infrastructure and access off the highway
    - Avoid inappropriate environmental and social impacts.

The Project details will continue in tandem with further environmental investigations and consultation with the community and key government agencies during the preparation of the EIS. The aim is to develop a Project that responds appropriately to its context.

Table 2-1 Preliminary evaluation of site suitability: Technical considerations (criteria source from CEC, 2018)

Technical considerations	
Wind resources	The Subject Land has good wind resources that can support feasible wind farms at the size proposed in the Project.
Commercially viable size of site	The site is of sufficient size to support a utility scale wind farm of approximately 25 wind turbines.
Electrical connection	The Subject Land has an onsite connection point to a suitable 132kV transmission line (Essential Energy).
Land ownership	The majority of the Subject Land is under freehold title and landowners are interested in long term leases for the duration of the Project.
Construction	The terrain consists of rolling hills with gentle slopes expected to result in simple construction process with low direct disturbance of an indicative 158 hectares. It is close to existing transport and electricity network infrastructure, reducing the additional impacts related to haulage and grid connection.

Table 2-2 Preliminary evaluation of site suitability: Technical considerations (criteria source from CEC, 2018)

Environmental considerations to date	
Planning constraints	The Project aligns with federal, state, regional and local planning priorities and is permissible.
Nearby land uses	Existing grazing and quarrying operations are able to continue largely unaffected by the Project. Located within a region positioned to be a hub of renewable energy excellence and where the Project would contribute to this ‘Engine of Growth’ industry specialisation.
Biodiversity	The Subject Land is largely treeless, reducing clearing requirements and potential impacts on birds and bats.
Conservation and recreational uses	Suitable distance between the site and nearby reserves (Wadjan Nature Reserve, Dangelong Nature Reserve and Kuma Nature Reserve) to avoid indirect impacts on these areas.

2.4.3 Project benefits

The key Project benefits have been identified as follows:

- Once operational, the wind farm would produce an estimated 460,000MWh per year – enough energy to power more than 62,000 houses – replacing 275,000 tonnes per year of greenhouse gas emissions based on the existing average carbon intensity of power generation in the National Electricity Market.
- The Project would create downward pressure on electricity prices. The Australian Energy Market Commissions (AEMC) analysis indicates that the development of multiple renewable energy Projects will also be likely to put downward pressure on the wholesale electricity prices. This has the potential to reduce electricity bills for households and businesses across NSW.
- The Project would create local economic stimulus during construction. As well as creating up to 72 Full Time Equivalent (FTE) jobs during construction, the Project would create opportunities for local contractors and suppliers, sourcing a supply of a wide range of goods and services from trade equipment, materials and services, to accommodation, food and fuel.
- Contributing to an identified “Engine of Growth” specialisation. Renewable energy is one of the key industries generating jobs and growth and is identified as an “Engine of Growth” for the region (SMR Council 2023). The Project would provide benefits to local businesses and community groups by ensuring local skills are aligned with employment opportunities created in the renewable energy sector.
- Benefits sharing will also occur through a Voluntary Planning Agreement (enabling a Community Enhancement Fund to be established), a dedicated Neighbour Benefits Program (for neighbours to the Project), and host landowners’ royalties.

To operate in the local community for a project life of in the range of 30–35 years, the Project recognises it must realise significant benefits for the local community as well as broader benefits. The Project aims to identify specific local initiatives in consultation with the local community as investigations continue. Refer to Section 3.3 Project agreements and Section 5 Engagement for more details.

3. The Project

While still at an early stage of Project development, this section outlines:

- The lots on which the Project is proposed (the Subject land).
- Key infrastructure components.
- Project agreements required to accompany the Project.
- The estimated Capital Investment Value of the Project.

As well, a broad explanation of the key project phases is provided:

1. Project design refinement: this will be informed by the detailed investigations and consultation in tandem with completion of the EIS studies.
2. Construction.
3. Commissioning and operation.
4. Decommissioning.

There are currently no plans to stage specific areas or components of the Project at this time, although this may be considered further in the EIS.

Figure 3-1 Subject Land

3.1 The Subject Land

The Project would be located off Springs Road, Rock Flat, NSW 2630. The Subject Land totals approximately 6713ha and is owned by four involved landowners under freehold title plus a number of Crown land and Transport Asset Holding Entity owned lots as detailed below and illustrated in Figure 3-2.

Table 3-1 Lots within the Subject Land

Landowners	Lot Number	DP No.
Crown land and land owned by Transport Asset Holding Entity	91	DP750555
	1, 2, 3, 5, 6	DP954744
	1	DP946632
	1, 2, 3	DP954889
	5804	DP1250762
	6901	DP1140419
	7201	DP1140410
	7202	DP1140416
Freehold Owner 1	137 and 141	DP756818
	1, 146	DP756724
	1, 2, 3	DP1097721
	3	DP114647
	1 and 2	DP183565
	140	DP750540
	1	DP183564
Freehold Owner 2	3, 12, 14, 15, 16, 48, 82, 84, 86, 102, 110, 111, 114, 115, 116, 117, 118, 138, 139, 141, 142, 145, 146, 148, 149, 151, 152, 153, 166, 167	DP750540
	2, 8, 25, 28, 38, 39, 41, 44, 47, 48, 52, 87, 109, 113, 114, 115, 116, 117, 119, 138, 139, 140, 141, 142, 162, 163, 165, 171	DP750555
	118	DP1099852
	16, 17, 18, 19, 20, 21	DP228387
	2	DP1112864
	1, 2, 3	DP1226161
	14, 15, 21, 54, 57, 113, 114, 115	DP756818
Freehold	5, 6, 19, 22, 23, 24, 40, 43, 44, 45, 46, 47, 49, 52, 53, 60, 61, 62, 63, 64,	DP750540

Landowners	Lot Number	DP No.
Owner 3	69, 70, 75, 76, 77, 78, 85, 105, 106, 108, 119, 120, 121, 122, 123, 131, 134, 135, 136, 137, 154, 155, 156	
Freehold Owner 4	1	DP552035
	55	DP660245
	53	DP750537
	13, 15, 16, 17, 18, 22, 26, 54, 56, 77, 78, 79, 80, 82, 84, 85, 86, 89, 92, 94, 101, 102, 120, 121, 122, 123, 151, 175	DP750555
	1	DP1101138

3.2 Key infrastructure components

The Project would involve the construction, operation and decommissioning of a wind farm with a total nominal proposed capacity of approximately 150MW (AC).

The Project would include the following key components:

- Approximately 25 wind turbines.
- A 100 MW / 400-MWh Battery Energy Storage System (BESS).
- Electricity transmission infrastructure including:
    - Onsite underground and overhead lines.
    - Onsite substation.
    - Switching Station to connect into the existing 132kV Essential Energy infrastructure.
- Access:
    - Primary access off the Snowy Mountains Highway.
    - Internal roads.
    - Public road upgrades along the haulage route.

The Project is likely to include the following ancillary infrastructure and considerations:

- Watercourse crossings where required for the internal access tracks as required.
- Met masts, temporary and permanent.
- Operations and maintenance (O&M) buildings.
- Optional concrete batching plant and other temporary construction facilities, including laydown areas and construction compounds.
- Staff amenities and parking facilities.
- Landscape plantings, where required to reduce visual impacts.

An indicative conceptual layout and its associated Development footprint of an indicative 158 hectares are presented in this Scoping Report to identify the areas of land that may be directly impacted by construction and operation, including temporary and permanent impacts. As outlined in above, the concept layout consists of **34** potential wind turbine sites and will be further developed and reduced to approximately **25** wind turbine sites during ongoing consultation and assessment.

The mapping includes key site features identified in preliminary investigations including:

- Scenic protection zone, buffering the Snowy Mountains Highway
- Native Plant Community Types (PCTs) and areas of exotic (non-native) vegetation
- Waterways (Strahler stream orders 1-4)
- Recorded Aboriginal and historic heritage sites
- Areas of higher land capability (class 3).

Refer to Figure 3-3. These features are discussed in more detail in Section 6.

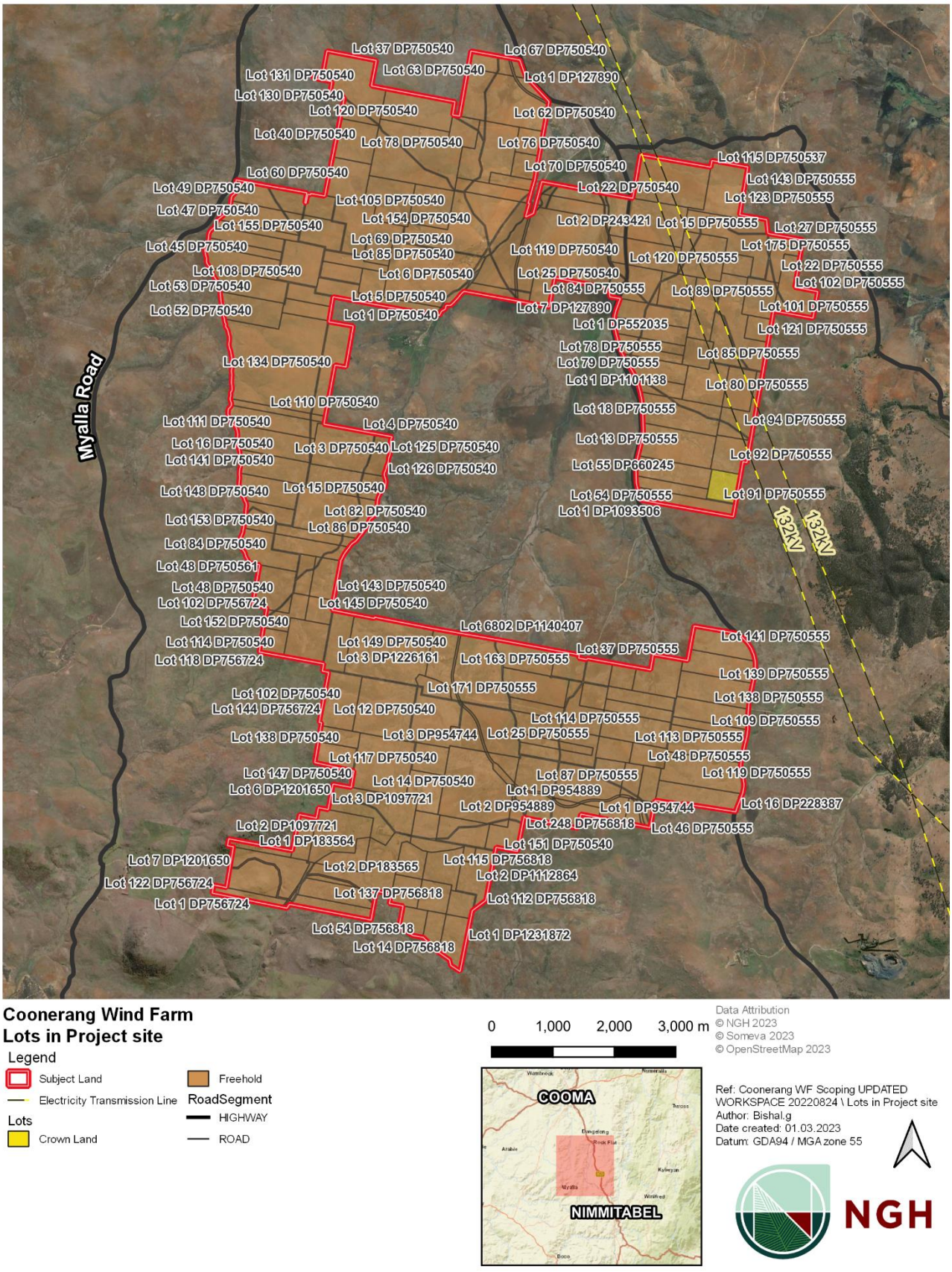


Figure 3-2 Lots/DP across the Subject Land

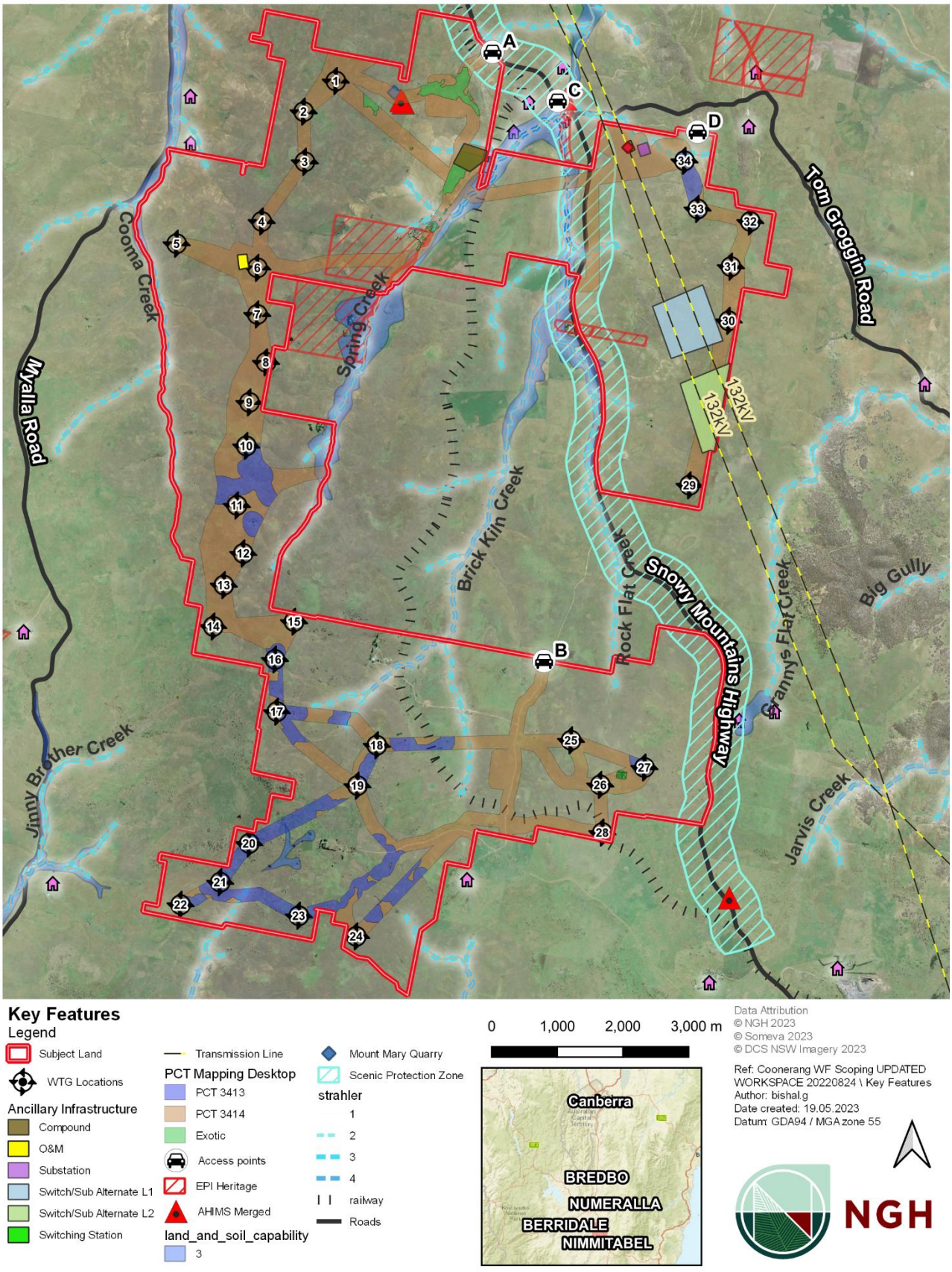


Figure 3-3 Indicative concept layout and its associated Development Corridor, showing the key site features identified to date and showing the four access options labelled A-D

Wind turbines

Individual wind turbine capacity is likely to be in the order of 6MW rated output. The wind turbine specification will be refined as part of the detailed engineering undertaken and based on the prevailing wind turbine technology available at the time of construction. The indicative dimensions based on currently available turbine technology are:

- Hub height up to a maximum of 165m
- Blade length up to a maximum of 101m
- Tip height up to a maximum of 266m.

The turbines will be fixed to a concrete footing and mounted on a combination or tubular concrete or steel towers, with adjacent hardstand areas (similar to compacted road base finish) created for installation and maintenance purposes.

Figure 3-4 6MW wind turbine, courtesy Enercon

Battery Energy Storage System

Large-scale battery storage is also proposed to support stabilising the supply of the electricity generated onsite into the grid.

The BESS facility will have a capacity of approximately 100 MW / 400MWh.

Figure 3-5 Typical BESS concept image.

Access

Four construction and operational access points are proposed via the Snowy Mountains Highway:

- Access point A: entry to the site via Snowy Mountains Highway
- Access Point B: via The Peak Road
- Access Point C: via Springs Road
- Access Point D: via Tom Groggin Road.

The Project would include an onsite access track network, connecting each wind turbine to its adjacent hardstand area and then to the rest of the infrastructure locations. The undulating terrain means the extent of cut and fill required to construct the access tracks can be minimised, reducing the Project's footprint.

Haulage network upgrades will be required to the public road network outside of the Subject Land, to accommodate the transportation of over-sized wind farm components. Upgrades may include specific areas of temporary road widening, changes to street signage and lighting and temporary protection near overhead power lines. The upgrade requirements and intersection treatments will be investigated and assessed as part of the EIS.

Substation and connection to the grid

The Project would include one substation to step up the voltage from the wind turbines at 33kV to the voltage for the electricity network at 132kV. An image of a switching station and substation is provided below as an indication.

A suitable transmission line crosses the site, and the Project is proposed to connect into this transmission line with a proposed switching station co-located with the substation.

The substation and switching station would include power transformers, switchgear, protection and communications equipment, and a control room. An underground electrical reticulation network

with potential for short overhead section to avoid creek lines, would connect the wind turbines to the collector substation. The cables would generally follow the access tracks between the wind turbines but may deviate where terrain allows a more direct route.

All cables would be installed in accordance with relevant Australian Standards. The final location and design of the substation and electrical infrastructure will be confirmed in the EIS, but indicative locations have been provided as shown in Figure 3-3.

Figure 3-6 Typical substation; source Gullen Range Wind Farm

Ancillary infrastructure and activities

A permanent site office and permanent maintenance and storage facilities would also be required. Construction of the Project would require temporary concrete batching plants, rock crushing facilities, potential for gravel pits (although Mount Mary Quarry is likely to be a key source of materials) 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 Project would also include temporary and permanent wind monitoring masts. The design and location of the associated infrastructure will be confirmed in the EIS and will be informed by detailed technical and environmental studies.

The Project would include the following ancillary activities:

- Geotechnical investigations to inform location and footings requirements of infrastructure
- Sourcing of gravel, rock and other materials for construction, likely from the Mount Mary Quarry located within the Project Area

- Sourcing of water for construction
- Consideration of visual screening
- Potential for subdivision and boundary adjustments.

3.3 Project agreements

In addition to lease agreements with the host landowners, Someva also proposes to:

1. Offer neighbour agreements to eligible offsite landowners to enable the benefits of the Project to be shared and compensate for any specific impacts.
2. Negotiate a Voluntary Planning Agreement to fund agreed additional infrastructure and community enhancement upgrades, where both the Project and broader community will benefit with the Council; and

The details of each agreement type would be developed further during consultation with these key stakeholders, during the preparation of the EIS.

3.4 Capital investment value

The capital investment value (CIV) of the Project is approximately $352 million. A detailed CIV report would be prepared as part of the development application process, which will confirm the CIV.

3.5 Timing

3.5.1 Project design refinement

The Subject Land and indicative conceptual infrastructure layout is provided in Figure 3-3. The development footprint will be assessed in the EIS and the conceptual layout will be revised and informed by community and stakeholder consultation, and ongoing detailed environmental investigations.

To assist further investigations, the conceptual layout includes 34 turbine sites which will be investigated toto inform the approximately 25 turbine locations which will optimise energy yield while minimising impacts on any key site values for assessment in the EIS. This allows Someva flexibility to continue to respond to community feedback, detailed environmental assessment and further investigations in selecting the final turbine locations. The layout presented and assessed in the EIS will be finalised during detailed design following approval and a final layout plan submitted as required by the conditions of approval.

3.5.2 Construction

The construction of the Project is targeted to begin in late-2025 subject to planning approval, with an expected duration of approximately 15 months, including an estimated 3 months of early works, 9 months of peak construction and 3 months of commissioning.

The BESS may be phased separately with the final location to be confirmed in the EIS (most likely located in close proximity to the wind farm substation and operations and maintenance office).

A construction workforce of 72 people is expected during the peak of construction, with fewer workers in the early works and commissioning phases of construction. The Project is expected to

generate 10 operational jobs and also contribute indirectly during construction and operation to the local community.

The majority of construction activities would be carried out during the following hours:

- 7am–6pm Monday to Friday
- 7am–3pm Saturdays
- No work on Sundays or Public Holidays.

Certain activities would require work to be conducted outside normal work hours to prevent damage to concrete tower bases and trenches, to reduce the safety risk of open trenches and to reduce the risk of tower self-oscillation. Some examples of these activities include concrete pours, in-ground electrical work and wind turbine installation. Other activities that would be carried out outside of the standard daytime construction hours may include:

- Work determined to comply with the relevant noise management level at the nearest sensitive receiver.
- The delivery of materials outside approved hours as required by the NSW Police or other authorities for safety reasons.
- Emergency situations where it is required to avoid the loss of lives and properties and/or to prevent environmental harm.
- Situations where agreement is reached with Project landowners and neighbours.

3.5.3 Commissioning and operation

Commercial operations of the first commissioned turbines would commence at the end of 2025 (subject to Project approval). The BESS may be phased separated but most likely located in close proximity to the wind farm substation and operations and maintenance office.

The Project would operate on a 24 hour and 365 days per year basis. The Project would be monitored by both on-site staff and through remote monitoring. The operational workforce is anticipated to consist of approximately 10 ongoing jobs.

It is anticipated that the Project would operate for 30–35 years, during which time existing grazing could continue largely unaffected by the wind farm infrastructure. Maintenance activities would be required, including maintenance of landscaping and asset protection zones, access tracks and inspection, testing and replacement of components on a rolling basis. Components may be replaced and or upgraded to support the estimated Project life.

3.5.4 Decommissioning

Following the end of economic life, the Project would either be decommissioned or refurbished with upgrades to power generation infrastructure. Any refurbishment will be subject to obtaining appropriate approvals under the EP&A Act If decommissioned, the Project area would be rehabilitated to its preconstruction conditions. Someva will prepare a decommissioning and rehabilitation plan to be provided as part of the EIS, in consultation with relevant stakeholders and landowners.

3.6 Alternatives

3.6.1 No Project

The “do nothing” scenario forgo the Project’s many benefits which include:

- Up to 72 FTE jobs during construction
- Associated direct and indirect economic inputs to the local and regional economy
- Community contributions including Neighbour Benefits (annual payments), a Community Enhancement Fund (enabled via Voluntary Planning Agreement), and host landowner payments
- Contribution to an ‘Engine of Growth’ specialisation for the region (SMR Council 2023).

Under the “do nothing” scenario the Project’s capital investment and associated flow on effects would also not be realised and is a source of opportunity well understood in this area.

The “do nothing” approach does not meet the objectives to develop renewable energy projects in NSW and does support the Project objectives.

The Project would generate renewable energy and limit greenhouse gas emissions. To not progress the Project would not result in savings of 275,000 tonnes of greenhouse gases (compared to the current carbon intensity of electricity generation in the national electricity market) and powering of 62,000 households annually.

Not developing the Project would be a missed opportunity to contribute to the transition away from Australia’s use of fossil fuels for energy generation and address the increasing demand for energy in the National Electricity Market and reliability challenges outlined by AEMO (2022a and 2022b).

3.6.2 Alternative sourcing of energy

The Project does not lie within a currently designated Renewable Energy Zone. Renewables Energy Zones have been identified by the NSW Government to identify areas of high renewable resources which benefit from the requirement to focus efforts to invest in grid upgrades to allow the renewable resources to be harnessed.

This Project is located within a region of high renewable energy resources, demonstrated through projects such as Snowy Hydro 2.0, Boco Rock Wind Farm and Monaro and Bilingra Solar Farms. The recent Snowy Monaro Regional Economic Development Strategy (SMR Council 2023) identified the renewable energy sector as an ‘Engine of Growth’ and identified the region has “higher than average wind speeds across the year, providing good conditions for wind power generation.”

The Project has access to existing transmission lines that intersect the site and doesn’t require significant upgrades to allow electricity to reach customers across the National Electricity Market.

The Subject Land is a unique and suitable site, located close to access and transmission infrastructure and can realise the benefits of increased renewable energy input into the grid relatively quickly, without relying on significant infrastructure upgrades.

3.6.3 Alternative site location

During Project pre-feasibility assessments, the Applicant identified neighbouring land in the immediate vicinity. Due to the location of nearby towns Cooma and Nimmitabel, the Subject Land was selected as mid-way between these townships and accordingly maximising distances to more densely populated areas.

Areas investigated west of Cooma did not have the same network capacity to create the same level of electricity export. They also had existing proposed solar farms which constrains the potential for additional renewable energy capacity.

3.6.4 Maximised site layout

An initial project layout of 45 wind turbines was developed during consultation with local landowners, in consideration of the likely maximum number of turbines that the Subject Land could support. This initial project layout was used for consultation. After reviewing grid connection capacity and in further discussions with host landowners, that number has been reduced. A concept layout of 34 wind turbine sites is now presented and will be used to further ongoing consultation and investigate impacts and inform the selection of approximately 25 wind turbine sites which provide the best balance of:

- optimising energy yield and constructability factors, and
- minimising environmental and amenity impacts.

This approach ensures that the outcomes of ongoing community consultation are reflected in project design. An iterative process will be utilised to determine the optimum number of turbines and associated infrastructure in relation to consultation outcomes and preliminary environmental assessment findings for detailed assessment in the EIS.

A similar process was followed to derive the conceptual layout presented in this Scoping Report which removed 11 potential turbines from the north and central area of the Project. The change reflected direct consultation with host landowners. Reducing the conceptual layout from 45 to 34 turbine sites created the following benefits:

- For residents on Myalla Road, the removal of 5 turbines from the northern section of the Project created:
    - Greater setback of turbines for residents on Myalla Road
    - Fewer 60-degree sectors within which turbines are visible
- For residents on Rock Flat Road, the removal of 5 turbines from the northern section and 6 turbines from the center of the Project created:
    - Fewer 60-degree sectors within which turbines are visible
    - Fewer turbines located within 3.1km of dwellings
- Greater set back distance from known threatened species habitat areas.

4. Statutory context

Someva is seeking SSD consent under Division 4.7 of Part 4 of the EP&A Act. Relevant statutory considerations for the Project are presented below.

Table 4-1 Statutory requirements

Category	Statutory requirements	Relevance to Project
Power to grant consent	*EP&A Act* *State Environmental Planning Policy (Planning Systems) SEPP 2021* (Planning Systems SEPP)	Clause 20 of Schedule 1 of the Planning Systems SEPP states that the following is considered to be 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, or* *(b) has a capital investment value of more than $10 million and is located in an environmentally sensitive area of State significance.'* The Project will have a capital investment cost estimate of more than $30 million (currently estimated at $356 million) and is for the purpose of electricity generating works using wind power as an energy source. Accordingly, the Project is State Significant Development under section 4.36 of the EP&A Act. Under section 4.5 of the EP&A Act the Minister for Planning and Public Spaces (or his delegate) is the consent authority for SSD (unless specific conditions occur e.g., where 50 or more people have objected to the application, the local council has objected to the application; and/or the Applicant has disclosed a reportable political donation, whereby the Independent Planning Commission (IPC) would be the consent authority).
Permissibility	*State Environmental Planning Policy (Transport and Infrastructure) 2021* (TI SEPP),	Section 2.36 of the TI SEPP relevantly provides that *'development for the purpose of electricity generating works may be carried out by any person with consent on the following land … any land in a prescribed non-residential zone'* The Subject Land is located within land zoned RU1 Primary Production under the Cooma-Monaro and

Category	Statutory requirements	Relevance to Project
	Cooma-Monaro Local Environmental Plan 2013 (Cooma-Monaro LEP) *Snowy River Local Environmental Plan 2013* (Snowy River LEP)	Snowy River LEP apart from Snowy Mountains Highway and railway corridor which is mapped as SP2 . Each of these zones form part of a *'prescribed non-residential zone'*. Accordingly, the Project is permissible with consent under the EP&A Act.
Other approvals	*Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), *Roads Act 1993* (Roads Act), *Crown Lands Management Act 2016* (CLM Act), *Water Management Act 2000* (WM Act), *Protection of the Environment Operations Act 1997* (POEO Act)	The EP&A Act operates so that a number of other statutory approvals are no longer required for approved SSD projects or must be granted consistently with any SSD development consent granted. **EPBC Act** Preliminary assessments indicate that the Project has the potential to have a significant impact on matters of national environmental significance protected by the EPBC Act. Accordingly, a referral will be lodged shortly with the Dept of Climate Change, Energy, the Environment and Water (DCCEEW) seeking confirmation as to whether the Project is a controlled action requiring approval under the EPBC Act. If so, it is anticipated that the Project will be assessed under the bilateral agreement with the Commonwealth. **Other approvals** Other approvals/licences that may be required for the Project include: • An easement, licence or permit under division 5.6 of the CLM Act • Water access licences under the WM Act • Consent under section 138 of the Roads Act for road upgrades to the public road network. • Environment Protection Licence under the POEO Act.
Pre-condition to exercising the power to grant consent	N/A	No pre-conditions to exercising the power to grant approval have been identified for the Project.

Category	Statutory requirements	Relevance to Project
Mandatory matters for consideration		The following key Commonwealth, State and Local legislative and policy instruments are applicable to the Project: <u>Commonwealth</u> • EPBC Act • *Native Title Act 1993* <u>NSW</u> • EP&A Act • TISEPP • RHSEPP • *State Environmental Planning Policy (Primary Production) 2021* (PPSEPP) • *State Environmental Planning Policy (Biodiversity and Conservation) 2021* (BCSEPP) • Roads Act • CLM Act • NPW Act • WM Act • Heritage Act • *Biodiversity Conservation Act 2016* (BC Act) • *Electricity Infrastructure Investment Act 2020* (EII Act). <u>Local instruments</u> • Cooma-Monaro LEP • Snowy River LEP • Snowy Monaro Local Strategic Planning Statement • Snowy Monaro Regional Council Draft Rural Land Use Strategy 2022

5. Engagement

5.1 Engagement objectives and methods

Preliminary early engagement has commenced and has informed the Project to date. Further engagement will continue to establish avenues to the community to ensure comprehensive consultation and that the final Project presented will be one that is informed by consultation outcomes.

A Community Engagement Strategy (Appendix D) has been prepared to ensure the following objectives are achieved:

1. Produce clear information on the Project, potential impacts (positive and negative) and benefits for the environment, community, and region by delivering high- quality communication channels across all targeted channels.
2. Ensure the Project has a positive impact on the region with clear demonstration of shared local and broader regional social, economic, and environmental benefits.
3. Develop a sense of local ownership in the Project by identifying several local advocates.
4. Work together with the community in a collaborative way by identifying issues and likely mitigations throughout Project phases.
5. Support an uplift in the regional economy and level of local prosperity via a regional economic assessment.
6. Demonstrate sharing of Project benefits with a creation of a successful community led Community Benefit Scheme.
7. Support and engage local capabilities, engaging several local suppliers including Aboriginal owned suppliers.

To date, the engagement planning has identified key stakeholders and suitable engagement strategies specific to each stakeholder group and stage of the Project. Early engagement with host landowners, nearby neighbours (within 5km zone), and local council noted their preference for the engagement methods identified in Table 5-1.

Consultation methods will continue to be modified in response to stakeholder feedback, as additional stakeholders are identified and as monitoring data is captured, providing a more comprehensive understanding of the impact of each engagement tool.

All stakeholder engagement for the Project will be carried out in accordance with the DPE's *'Undertaking Engagement Guidelines for State Significant Projects'* dated October 2022.

Table 5-1 Preferred engagement methods

Indicative Preference Level	Engagement Tool
High	Individual meetings (face-to-face / 1-1)
	Email communications (for significant Project updates and general notification of when we are in-region for follow up meetings/ engagements)
	Limited group size Project briefings/ meetings (both virtual and in-person), among key stakeholder groups (mainly nearby neighbours indicate preference for this). Groups sizes have typically included 2–3 families and/or individuals at one time.
Medium	Individual meetings (phone and video conference calls methods)
	Community / stakeholder surveys, including options for follow up face-to-face engagements / survey administering
	Project website (Coonerang Wind Farm) with frequent updates and direct notification of updates to key stakeholders by the Applicant.
	Letters and newsletters (mailbox drops).
	Newspaper ad updates (to Cooma and surrounds community)
Low	Mass community information sessions (virtual, and drop-in) – which are planned to commence in 2023.

5.2 Activities undertaken and soon to be undertaken

The Project website was launched on 4 October 2022. It is currently active and includes access to an online community survey, Project Fact Sheet (October edition), Frequently Asked Questions (FAQ, October edition), and key points of contact to engage directly and discuss the Project.

A half page advertisement was run for four weeks in the Monaro Post from 12 October 2022 to commence broader community engagement and increase awareness, including of the Project website. A 'Letter to the Editor' of the Monaro Post was also published in early June to respond to community concerns raised through Monaro Post publications during February to May 2023.

A community drop-in session and update to local council is planned for mid-2023 (following the issuing of SEARs) to initiate broader community engagement and Project awareness.

Direct engagement, including meetings with neighbour groups near the Project zone, is being prioritised to ensure their active engagement with the Project.

Outcomes from preliminary engagement activities undertaken to date are summarised below in Table 5-2**.**

Table 5-2 Summary of Preliminary Consultation undertaken to date (Details in Appendix D)

Stakeholder	Date/s	Consultation activity and key outcomes
Host Landowners (Associated Dwellings# 1-9)	Continuous since (2021)	Regular contact regarding community engagement (with neighbours within 5kms of Subject Land), ecological, visual, noise and other survey work. Favourable responses received.
Non Associated Dwellings (NADs)	Aug 2022 onwards	Main concerns raised include the perceived visual impact on the landscape and equitable share of Project benefits among nearby neighbours. Overall, the opportunity for positive benefits of the Project are noted by neighbours while concerns are sought to be addressed in detailed EIS stage. Efforts were made to contact all NADs within 8kms of the Project through flyer drops in letter boxes, door knocking and direct calls.
Snowy Monaro Regional Council (SMRC)	24 Aug 2022 onwards	Meetings with heads of department and presentation to Councillors. Generally supportive response from Council and willingness to continue to engage with Applicant. Scenic Protection Zone (SPZ) discussed, noting no Project elements are within the SPZ. Specific interest placed on seeking outcomes of biodiversity and visual amenity assessments and on the sharing of Project benefits. Discussed Council's Draft Rural Land Use Strategy, noting no Project elements are within constraint areas identify by this strategy.
Matt Kean, MP (NSW Government)	24 Aug – 3 Oct 2022	Acknowledgement of communication received and no further follow up response (e.g., request for meeting/briefing).
Kristy McBain, MP (Federal Government), Member for Eden-Monaro.	24 Aug 2022; 19 Oct 2022; 22 Feb 2023; 29 June 2023	Project overview provided and follow up Project information shared, including updates to stakeholder engagements. Supportive response to the renewables sector received. Emphasis placed by MP McBain on ensuring the Applicant follows the EIA process and guidelines to ensure thorough assessment and community consultation (and information sharing) is achieved.
Nicole Overall, MP (NSW Government), former Member for Monaro.	26 Aug, 11 Oct, and 9 Dec 2022; 22 Feb 2023.	Applicant met with MP Overall on 9 December 2022 to brief on the Project in person. Concerns were raised on behalf of constituents. Emphasis placed on ensuring Project information is shared by the Applicant when available.

Stakeholder	Date/s	Consultation activity and key outcomes
Stephen Whan, MP (NSW Government), current Member for Monaro	16 June 2023	Applicant met with MP Whan on 16 June 2023. Supportive response to the renewables sector received. Emphasis placed by MP Whan on ensuring the Applicant follows the EIA process and guidelines to ensure thorough assessment and community consultation (and information sharing) is achieved. MP Whan had specific interest in outcomes of biodiversity, visual amenity and social impact assessments.
Department of Planning and Environment (DPE)	13 Dec 2022, 7 Mar 2023, 13 July 2023	Initial engagement preparatory to lodging Scoping Report including providing a high level introduction to the Project, including with NSW Government Planning Concierge service who met with the Applicant on 18 Oct 2022 and again in March 2023.
Department of Regional NSW	28 Sept – 18 Oct 2022	Advised we engage with NSW Government Planning Concierge service, who we met via videoconference on 18 Oct 2022.
Bega LALC	3 Oct 2022 onwards.	Ngarigo people authorised to engage with state significant Projects on behalf of their peoples.
Merrimans LALC	August 2022 onwards	Favourable response and support received. Merrimans LALC are keen to be involved in the cultural heritage management and any future soil turn activities at identified Subject Lands.
Snowy 2.0 partner/ joint venture	6 Oct 2022	Positive response received about the Project.
Special interest groups including Climate Action Monaro; Monaro Rail Trail Inc	4–15 Nov 2022	Positive reception, ongoing engagement.
Biodiversity Conservation Directorate (NSW DPE)	27 July 2023	Project overview provided including results of rapid ecology survey. The Preliminary biodiversity technical report was shared via email prior to meeting. BCD feedback in the meeting included: • Potential for Grassland Earless Dragon to be listed as a Serious and Irreversible Impact (SAII) candidate species.

Stakeholder	Date/s	Consultation activity and key outcomes
		• Known records of Grassland Earless Dragon on a nearby project. • Discussion regarding suitable threatened reptile habitat types, appropriate survey methods, likely impact types and contacts for further agency input (Commonwealth and NSW) as well as mitigation strategies. • Expressed interest in site visit. • Discussed offset options and successful habitat enhancement strategies. Further information regarding input from BCD is provided in Chapter 6.1.4.
TfNSW	8 June 2023	Message left with Team leader seeking opportunity to meet. No response received as of July 17 2023.

5.3 Community feedback to date

The preliminary community consultation to date has identified a broad range of interests regarding all aspects of the Project including in the planning and assessment of the Project, environmental and social impacts, opportunities for economic and other social benefits and the Project's interaction with other large developments in the region.

Significant Project design adjustments have been made to the initially proposed project layout in response to preliminary community consultation prior to submission of this Scoping Report. This includes direct input from largest Project neighbour group located to the northwest of the Subject Land, which accounts for half of all residents living within 5kms of the Subject Land. The majority of the turbine locations closest to these residences have been removed.

Table 5-3 Feedback from initial stakeholder consultations

Description of concerns raised	Source of feedback	Feedback received (issues / concerns raised)
A change in the natural environment and visual amenity.	Neighbours within 5kms of the Project; local Council (SMRC).	Key issue raised for stakeholders. The rolling hills of treeless and grassy plains are strongly valued by stakeholders in the community. This concern appears to be the main driver of objection to wind farm developments by stakeholders living in this region. The northwest Project neighbour group had significant concerns about the cluster of wind turbines closest to their residences. These turbines have now been removed.
Community disharmony / division.	Host landowners; most neighbours within 5kms of the Project; local Council (SMRC).	Concerns were raised about community disharmony or division resulting from the Project. For/against groups that support/object to the Project exist in the area and have been engaged directly. A related concern is the potential for uneven/ inequitable (financial) benefits. A detailed assessment and co-design of the Neighbour Benefits Program is proposed.
Ability to inform decisions, influence Project design, benefits programs (neighbour or community programs), and access enquiry and complaint processes.	Some neighbours within 5kms of the Project; local Council (SMRC).	This was a key issue for the stakeholders who flagged concern or potential opposition to the Project. Stakeholders, especially neighbours consulted within 5kms of the Project, want direct (1-1 or face-to-face) engagements and the provision of updated information (e.g., completion of site surveys etc.) as soon as available so they can review and inform decisions. The co-design of a Neighbour Benefits Program with neighbours directly affected by the Project was also raised as something stakeholders wanted.
Housing and accommodation.	Local business engagements; local Council (SMRC).	Added housing demand pressures in Cooma and surrounds, noting extensive impact of ongoing Snowy Hydro 2.0 Project forecasted over next decade.

Description of concerns raised	Source of feedback	Feedback received (issues / concerns raised)
Land / property values.	Some neighbours within 5kms of the Project.	Some stakeholders noted a perceived negative impact on land prices resulting from their land being situated near proposed wind turbines (within 5kms). This factor will be further assessed during preparation of the EIS.
Local road usage and damage.	Host landowners; most neighbours within 5kms of the Project; local Council (SMRC).	Main concern raised included damage to local road infrastructure during construction phase. Several stakeholders noted the positive benefits of upgraded road infrastructure that is anticipated from the Project, noting the nearby Boco Rock Wind Farm experience.
Local infrastructure (road network and electricity grid).	Local business engagements; local Council (SMRC).	Local businesses are already benefiting from local renewable energy development Projects (Snowy Hydro 2.0; Boco Rock), and a reliable service economy has emerged in Cooma and surrounds that would support this Project. Several stakeholders wanted to understand the extent of potential local infrastructure upgrades, including to roads and energy distribution networks (grid / transmission line upgrades). Concerns were raised by these groups about the constraints on the electricity grid stemming from additional renewable energy generation Projects in the near future.
Aboriginal heritage.	Merrimans LALC; local Council (SMRC).	Minimal concerns raised by Merrimans Local Aboriginal Land Council following initial discussions about potential future impacts of the Project, especially infrastructure works (namely on crown land), and mitigation strategies proposed by Someva in partnership with Merrimans LALC. Other stakeholders noted the complicated situation that exists in this region for First Nations peoples due to historic forced people movement and recognition of prior connection to land.
Diversification of income streams for involved landowners and neighbours.	Host landowners; most neighbours within 5kms of the Project.	Stakeholders noted the severe impact of the recent droughts on the landscape and ability to continue stock grazing (sheep and cattle) activities – direct financial benefits from hosting and being in proximity (neighbours) to wind turbines was noted as a benefit sought to improve agribusiness resilience. The value of Community Benefit Funds (Voluntary Planning Agreement) seen from nearby renewable energy Projects (Boco Rock, Snowy Hydro 2.0) were noted during consultation.
Demands for local goods and services.	Local business engagements; local Council (SMRC).	Local businesses are already benefiting from local renewable energy development Projects (Snowy Hydro 2.0; Boco Rock), and a reliable service economy has emerged that would support this Project. This Project is forecasted to commence construction as Snowy 2.0 is forecasted to start winding down from peak construction efforts. Several stakeholders noted the value of exploring 'Local Content' targets for the Project.

Description of concerns raised	Source of feedback	Feedback received (issues / concerns raised)
Health and wellbeing.	Limited number of nearby neighbours within 5kms of the Project.	A limited number of stakeholders (neighbours) cited concerns about potential noise impacts. They wanted to understand the extent to which the turbines would produce noise. Several stakeholders were also provided initial desktop noise impact assessments to assist them to understand this issue.
Future wind farm decommissioning (or re-energising/replacement)	Limited number of nearby neighbours within 5kms of the Project.	Limited number of stakeholders (neighbours) cited concerns about the extent to which wind turbines could be recycled in the future and/or replaced ('re-energised'). These stakeholders want assurance that the turbines will continue to deliver value or be replaced/removed in the future.

5.4 Ongoing engagement

A high level outline of the proposed future engagement based on current community and stakeholder consultation is provided in Table 5-4.

Table 5-4 Proposed ongoing engagement

Stakeholder Group	Engagement Activities
Host landowners	• Face-to-face (f2f) meetings • Email / letter / phone calls / factsheet / newsletter updates / website / direct contact line (mobile + email) • Community information sessions
Neighbours (landowners) within 5kms of the Subject Land	• Door knocking • Face-to-face (f2f) meetings • Email / letter / phone calls / factsheet / newsletter updates / website / direct contact line (mobile + email) • Community information sessions
Nearby towns	• Information sessions (virtual and in-region) / website / direct contact line (mobile + email) / newsletter and email updates • Advertising in local newspaper and via Snowy Monaro Regional Council channels
Community Consultative Committee (note: mandatory under current DPIE guidelines)	• Face-to-face (f2f) meetings • Email / letter / phone calls / factsheet / newsletter updates / website / direct contact line (mobile + email) • Community information sessions
Snowy Monaro Regional	• Face-to-face (f2f) meetings

Stakeholder Group	Engagement Activities
Council	• Email / letter / phone calls / factsheet / newsletter updates / website / direct contact line (mobile + email) • Community information sessions
Local businesses	• Information sessions (virtual and in-region) / website / direct contact line (mobile + email) / newsletter and email updates • Advertising in local newspaper and via Snowy Monaro Regional Council channels
Traditional Owners and other Aboriginal Groups	• Face-to-face (f2f) meetings • Email / letter / phone calls / factsheet / newsletter updates / website / direct contact line (mobile + email)
Project partners	• Information sessions (virtual and in-region) / website / direct contact line (mobile + email) / newsletter and email updates • Advertising in local newspaper and via Snowy Monaro Regional Council channels
Emergency Services (Cooma and Nimmitabel), including Local airport	• Meetings / briefings / emails / phone calls / factsheet + Project updates / website / direct contact line (mobile + email) • Advertising in local newspaper and via Snowy Monaro Regional Council channels • Information sessions
Local schools (Cooma and Nimmitabel)	• Presentations • Emails / factsheet + Project updates / website / direct contact line (mobile + email) • Information sessions
Chambers of Commerce and Key Industry Groups	• Meetings / information sessions (virtual and in-region) / website / direct contact line (mobile + email) / newsletter and email updates • Advertising in local newspaper and via Snowy Monaro Regional Council channels
Local Media	• Presentations • Emails / factsheet + Project updates / website / direct contact line (mobile + email) • Information sessions
Federal Government Departments and representative/s	• Face-to-face (f2f) meetings • Email / letter / phone calls / factsheet / newsletter updates / website / direct contact line (mobile + email)

Stakeholder Group	Engagement Activities
State Government Agencies, Departments, and representative/s	• Face-to-face (f2f) meetings • Email / letter / phone calls / factsheet / newsletter updates / website / direct contact line (mobile + email)
Community Organisation and Local Action Groups	• Emails / factsheet + Project updates / website / direct contact line (mobile + email) • Information sessions

6. Preliminary environmental assessment

In accordance with the *State Significant Development Guidelines* (DPE, 2021), specifically section 4.4 and *State significant development guidelines – preparing a scoping report: Appendix A*, the scale of impact, nature of impact and sensitivity of the receiving environment for the environmental issues has been evaluated in the scoping summary table in Appendix A. The scoping summary table stipulates the level of assessment required for each matter during the EIS phase.

In addition, the following preliminary assessments on the conceptual layout have been undertaken to inform an understanding of the potential impacts and guide the detailed assessments of the final layout which will be provided in the EIS:

- Preliminary visual assessment, in accordance with the *Wind Energy Guideline: For State significant wind energy development* (DPE, 2016) technical supplements: *Wind Energy: Visual Assessment Bulletin for State significant wind energy development* (DPE, 2016).
- Preliminary noise assessments, in accordance with the *Wind Energy Guideline: For State significant wind energy development* (DPE, 2016) technical supplements: *Wind Energy: Noise Assessment Bulletin for State significant wind energy development* (DPE, 2016).
- Preliminary social impact assessment, in accordance with the *Social Impact Assessment Guidelines: For State Significant Projects* (DPE, 2021).
- A preliminary biodiversity technical report, to ground validate the vegetation communities and habitat values and potential risks to biodiversity values.

These reports are appended in full (Appendix A to Appendix E).

The sections below summarise the information obtained to date from these preliminary investigations as well as desktop review, to identify the level and type of further assessment required in the EIS. The results are summarised under these headings in the chapter below:

- Section 6.1 Matters requiring **detailed assessment,** which have been determined to be:
    - Landscape and visual amenity
    - Noise amenity
    - Social impacts
    - Biodiversity
    - Aboriginal cultural heritage
    - Historic heritage
    - Access and traffic
    - Hydrology, groundwater and water use
    - Aviation
- Section 6.2 Matters requiring **standard assessment,** which have been determined to be:
    - Soils, land use, land capability
    - Hazards; bushfire, electric and magnetic fields
    - Air quality and climate
    - Wastes and resource management
    - Cumulative impacts.

A concept layout of **34 wind turbine sites** has been used at this preliminary stage to investigate potential impacts for further assessment. Ongoing environmental investigations and consultation will inform the final infrastructure layout of approximately **25 wind turbine sites for assessment in the EIS.**

As the final layout assessed in the EIS will include a material reduction from the 34 wind turbine sites presented in the concept layout, the preliminary assessment results presented in this chapter are likely to identify a higher level of impact than will result from the layout that is assessed in the EIS which will be limited to approximately **25 wind turbine sites**. For example, at this stage:

- The preliminary visual impact investigations have considered the potential visibility of 34 turbines at a maximum tip height of 266m.
- The preliminary noise investigations have modelled 34 of turbines operating concurrently, using the noisier wind turbine model that may be considered.
- The preliminary biodiversity investigations have considered a broad study area to ensure higher value areas identified can be considered for avoidance.

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

6.1 Matters requiring detailed assessment

6.1.1 Landscape and visual amenity

Moir Landscape Architecture (MLA) were engaged to conduct a preliminary Landscape and Visual Impact Assessment (refer to Appendix B for the full report; MLA 2022). The method adopted is as prescribed by the *Wind Energy: Visual Assessment Bulletin for State significant wind energy development* (DPE 2016).

Existing environment

Landscape Character Units

Five Landscape Character Units (LCUs) have been identified across the Subject Land and surrounds (or Project area). Table 6-1 provides a brief overview of the potential visibility of the Project from each of the LCUs.

Table 6-1 Preliminary Visual Impact Assessment of LCUs

Landscape character unit		Preliminary Visual Impact Assessment
LCU01	Densely Vegetated Hills	Vegetation typical of the LCU is likely to reduce potential visibility of the Project from viewing locations in the Densely Vegetated Hills LCU. Due to the topography and dense vegetation typical of the LCU, views to the Project from these areas are likely to be limited.
LCU02	Partially Vegetated Hills	The LCU is characterised by undulations and patchy vegetation that helps filter views within the LCU. The character of this LCU is partially modified with areas that have been cleared to support grazing. Because of this modification, impacts of the Project on this LCU are likely to be low.
LCU03	River & Creek Corridors	Views towards the Project will be available within this LCU because of the relatively flat topographic character and elevated position of the turbines. Patches of vegetation however, along the creek channel, may help screen views in certain areas.
LCU04	Monaro Plains	The Project is located within the Monaro Plains LCU which is also the most dominant character of the region. Isolated dwellings are scattered across the farmlands. Agricultural activities include grazing pastures and dryland cropping.
LCU05	Towns & Settlements	The character of Cooma, Nimmitabel and their surrounds is defined by gently undulating terrain. Distant views of the Project's infrastructure are likely to be available from within the towns however, a combination of existing vegetation and topography are likely to filter these distant views.

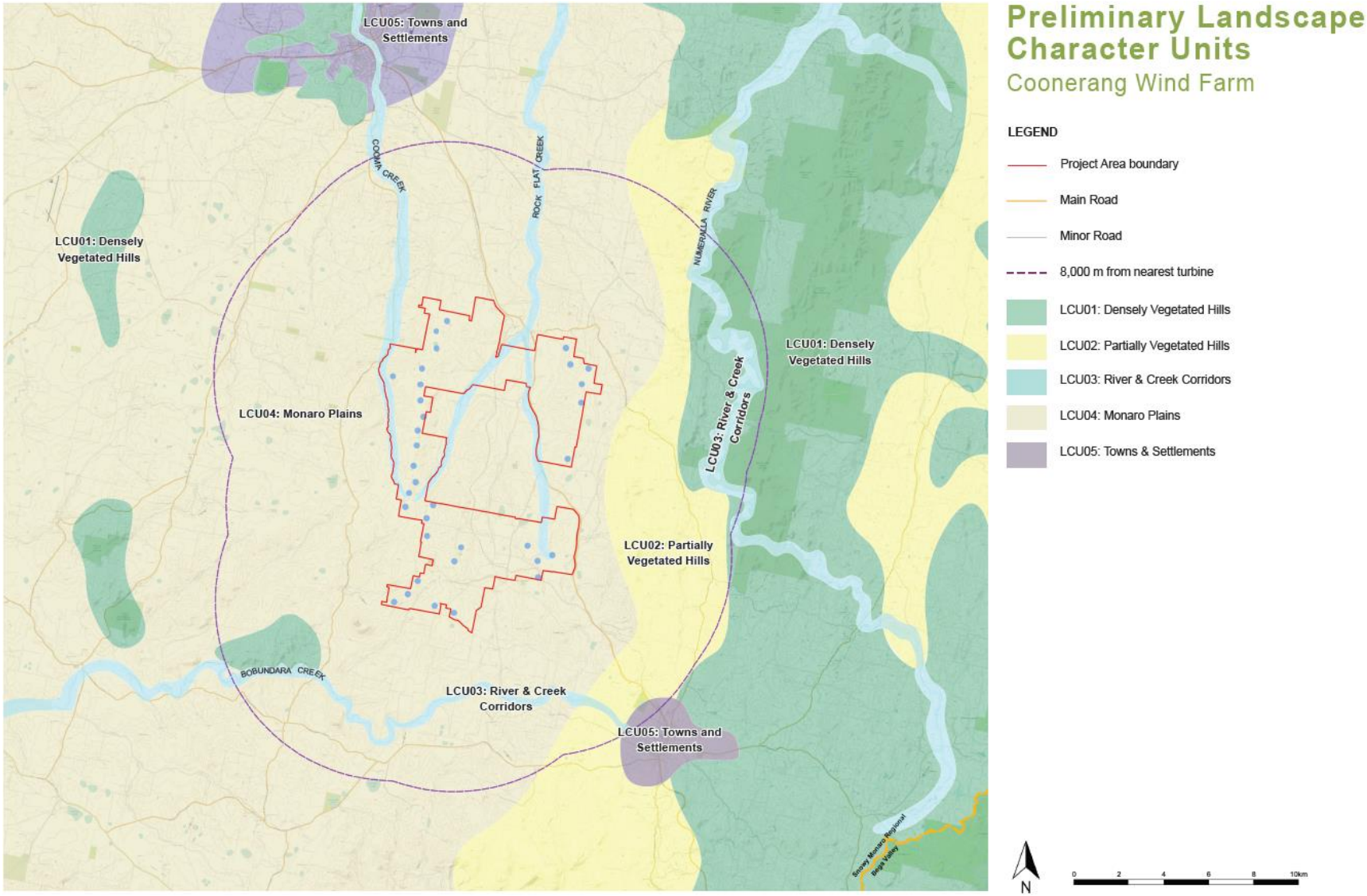


Figure 6-1 Landscape Character Units (Map Source: Six Maps, 2022)

Scenic Protection Area

Two Scenic Protection Areas, delineated under the Cooma - Monaro LEP, are located near the Project. One intersects some of the parcels and is adjacent access points proposed off the Snowy Mountains Highway (refer to Figure 6-3). Another area occurs to the north-west of the Project on the Snowy Mountains Highway west of Cooma (refer Figure 1-1). The objective of the Scenic Protection Areas under the LEP is to maintain the visual amenity of these rural road corridors.

The Cooma - Monaro LEP states that:

In considering whether to grant development consent [1] to development on land to which this clause applies, the consent authority must consider the following:

(a) the significance of the land as part of a visual corridor of regional importance,

(b) the visual impact of the proposed development as viewed from the Monaro or Snowy Mountains Highways, and

(c) whether measures to minimise any adverse visual impacts have been included in the development.

The Project would be located within a predominantly rural landscape that has not been identified as significant or rare. However, the rolling hills of treeless and grassy plains are strongly valued by stakeholders in the community. The broad landscape character surrounding the Scenic Protection Area is dominated by established rural land which consists primarily of undulating hills.

As the Project would be located within a landscape that has remained largely unchanged for decades, the potential for contrast is significant. Regardless of how visible it actually is, the Project would become a feature of the local visual landscape. However, the degree to which the existing landscape character is altered by the Project is determined by the dominance of the proposal in relation to the existing landscape features. The proposed wind turbines will be a new element in the landscape, but they do not diminish the existing landscape features (hills and grasslands).

Assessment methodology and early results

Visual magnitude tool

The Visual Bulletin requires the distance and height of potential turbines to be considered relative to residential or other locally identified viewpoints of significance. In accordance with the Bulletin, proposed turbines below the black line must be identified along with the dwellings or key public viewpoints as part of the request for SEARs.

Key findings from the Landscape and Visual Impact Assessment included:

- 6 Non-associated dwellings within 2km of a single turbine based on the 34 turbine conceptual layout
- 3 Non-associated dwellings within 2km of multiple turbines based on the 34 turbine conceptual layout
- 22 non-associated dwellings within the black line of visual magnitude (3,500m from nearest turbine presented in the conceptual layout)

[1] It is noted that Department of Planning and Environment are the consent authority for State Significant Developments however, Council are a key stakeholder and local land use policies and zoning are still considered relevant to the Project.

- 18 non-associated dwellings between the black and blue line of visual magnitude (5,200m from the nearest turbine presented in the conceptual layout)
- 40 non-associated dwellings are located within 8,000 metres of the turbines presented in the conceptual layout.

Due to the undulating topography of the landscape, there are large areas of land within the Subject Land which would be screened, particularly to the east of the site. The highest level of visibility is likely to be from within the northern portion of the site.

Turbines within 2km of non-associated dwellings have been retained in the conceptual layout for further assessment in the detailed Visual Impact Assessment proposed as part of the comprehensive Environmental Impact Assessment. It is noted that assessment undertaken for this Scoping Report doesn't include potential for topographic screening, intervening structures and vegetation screening and the potential for neighbour agreements to be reached.

Evaluation of the Preliminary Visual Impact Assessment in Appendix B, along with assessment of satellite imagery surrounding dwellings within 2km of the conceptual layout, indicates that the vegetation within the curtilage of 7 dwellings could potentially offer natural screening towards the conceptual layout of 34 turbines. Further assessment as part of the Landscape and Visual Impact Assessment process will determine the height of the current vegetation, and interaction with the natural contours of the terrain, to demonstrate the visibility of the final layout through either wireframe representations or photomontages for further consultation.

All landowners within 2km of the conceptual layout have been consulted and there remains the potential to reach negotiated agreements with neighbours or for the project to commit to additional visual screening and/or final turbine layout changes to reduce impacts appropriately.

The results of further assessment as described above and consultation with landowners will help inform a final layout for submission in the Environmental Impact Statement consistent with the NSW Wind Energy: Visual Assessment Bulletin – December 2016.

Zone of visual influence

A Zone of Visual Influence (ZVI) map has been prepared to illustrate the *theoretical* visibility of the Project and to assist in defining its visual catchment. It has been prepared twice;

1) Using a blade tip height of 266m to show all areas where the uppermost tip of the turbine blades could be seen based on the conceptual layout.
2) Using a hub height of 180m to show all areas where the more distinguishable turbine towers would be visible based on the conceptual layout.

ZVIs are most useful in demonstrating areas that will have no views of infrastructure due to intervening topography. It does not take into account existing vegetation or structures or attenuation of views with distance and is therefore conservative. Refer Figure 6-5 and Figure 6-6 respectively.

Multiple Wind turbine tool

When applied to the Project, the 2D Multiple Wind Turbine Tool identified:

- Two non-associated dwellings with views in up to five 60-degree sectors based on the conceptual layout.

- Five non-associated dwellings have turbines located within up to four sectors of visible turbines based on the conceptual layout (two of these non-associated dwellings include turbines associated with Boco Rock Wind Farm).
- 11 non-associated dwellings have turbines located within up to three sectors based on the conceptual layout (four of these dwellings include turbines associated with separately approved Boco Rock Wind Farm).
- 25 non-associated dwellings have turbines located within up to two sectors based on the conceptual layout.
- 36 non-associated dwellings will view the turbines within one 60-degree sector based on the conceptual layout (deemed an acceptable level in accordance with the Bulletin).

One key public viewpoint was identified within 8,000m of the nearest turbine based on the conceptual layout. 'The Peak' is an informal lookout which is located off the Peak Road and the Project Area is located to the north, east and south of the lookout. Theoretically, the viewpoint will have views of the Project in five 60-degree sectors based on the conceptual layout. An assessment of the potential visual impacts on this viewpoint has been discussed in Appendix B of PVIA (Attached as Appendix B of this report).

Cumulative visual impacts

With the development of more wind farms within the region, there is potential to alter the perception of the overall landscape character irrespective of them being viewed in a single viewshed. It is important to determine whether the effect of multiple wind farms and other major infrastructure within the region would combine to become the dominant visual element, altering the perception of the general landscape character.

Particularly, this Project must consider potential cumulative effects on the immediate and broader regional context that it forms a part of. The separately approved Boco Rock Wind Farm, which is within proximity of this Project has a potential to influence cumulative visual impact. Regarding the interaction with the Boco Rock Wind Farm, Moir (2022) concluded that:

- Cumulative impacts would generally be limited to land south of the Coonerang Wind Farm Project, along Springfield Road.
- Cumulative viewshed impacts for the town of Nimmitabel are generally reduced by intervening existing built forms and vegetation. Elevated positions may allow for views of both Projects; this would be confirmed via ground truthing in the EIS investigations.
- 17 non-associated dwellings are located within 8km of both the Project (based on the conceptual layout) and the Boco Rock Wind Farm. Detailed assessment of these dwellings for cumulative impacts will be carried out in the EIS investigations.

Summary results and potential for impact reduction

The following table provides a sample assessment of the potential visual impact of the Coonerang Wind Farm conceptual layout, based on 2D assessment tools compared with 3D wireframe assessment tools. A representative set of nearby non-associated dwellings (NAD's) are shown below to demonstrate this 3D wireframe assessment; NAD 4, 5, 6,10,11, 26, 31, 58, 90 and 94.

It is noted that the results so far are based on conservative assumptions and present a 'worst case' that may overestimate impacts. Further detailed investigations will portray more accurately features which can act to reduce impacts, such as existing vegetation and detailed terrain analysis. At this stage, following feedback from the DPE, some preliminary wireframes have been created to show

the potential for further impact reduction based on 3D terrain analysis. By adding existing terrain to otherwise 2D analysis, these wireframes demonstrate that ridges can serve as effective visual barriers from some locations and non-associated dwellings. The results of this analysis are provided in Appendix F and demonstrate the potential for further reduction in impact to be assessed in the LVIA.

Measures to mitigate the impacts identified in the preliminary assessment will be further assessed and considered at the EIS stage following detailed Visual Impact Assessment.

Table 6-2 Summary of visual impact

Non Associated Dwelling	2D Preliminary Visual Assessment		3D Preliminary Visual Assessment (wireframe)	
	Number of 60º sectors	Number of potentially visible turbines (at tip height) within 8km buffer	Number of 60º sectors	Number of potentially visible turbines (at tip height) within 8km buffer
1	4	21	3	8
3	3	18	3	16
10	3	18	3	9
11	2	15	2	11
26	2	10	1	5
31	2	16	2	11
58	3	17	3	16
90	2	11	2	11
94	5	26	5	26

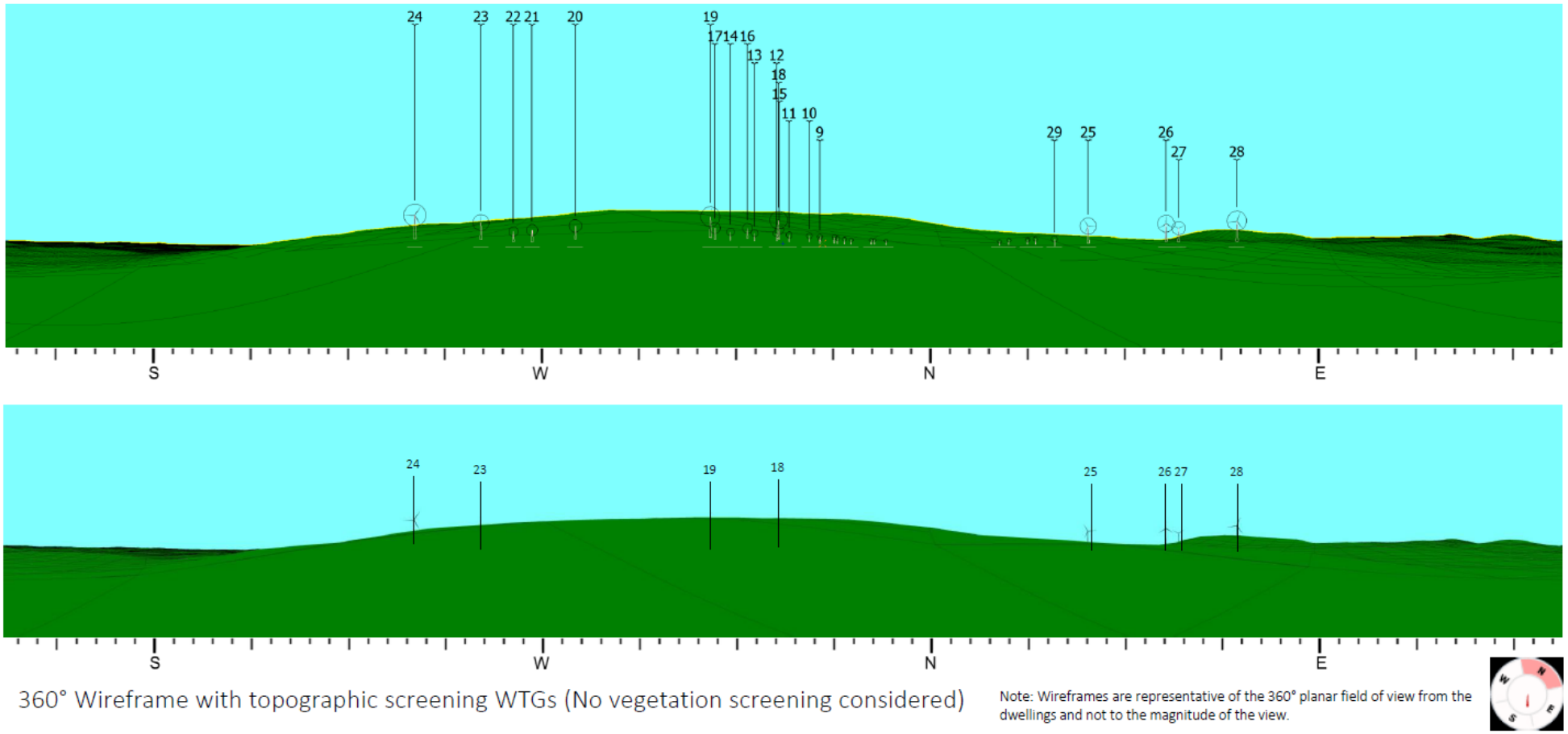
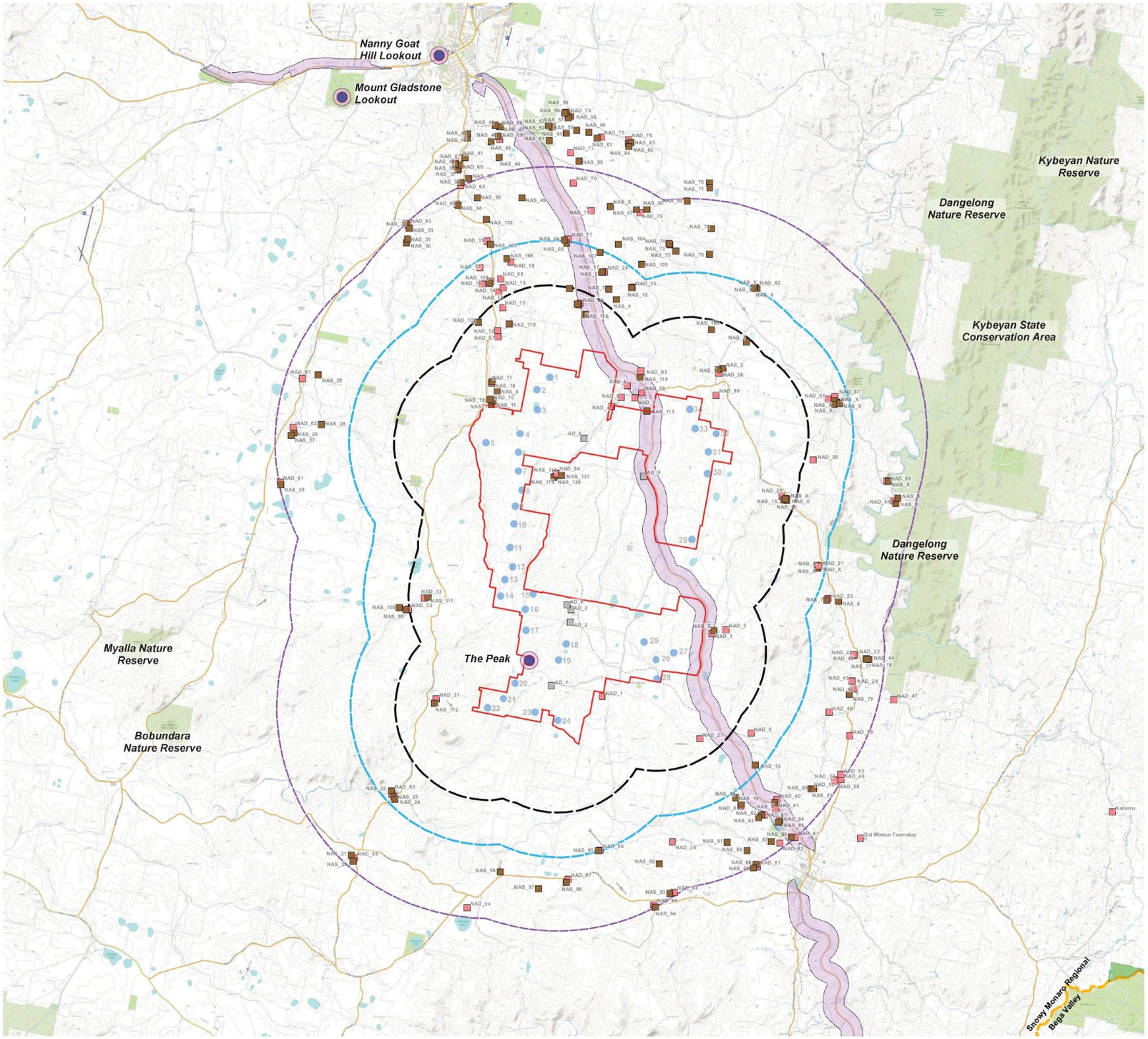


Figure 6-2 Sample wireframe – modelled from Non Associated Dwelling NAD_01, on the south-eastern Project boundary

(Refer to Figures 6-3 and n6-4 below for the location of closest dwellings and to Appendix F for wireframes generated from different locations).



Visual Magnitude
Coonerang Wind Farm

LEGEND

- Project Area boundary
- Proposed 266 m Turbine Location
- NAD_1 Non-associated dwellings
- AD_1 Associated dwellings
- NAS_1 Non-associated structure
- Key public viewpoint
- Main Road
- Minor Road
- 3,500 m from nearest turbine
- 5,200 m from nearest turbine
- 8,000 m from nearest turbine
- LGA Boundary
- Nature Reserve / State Conservation Areas
- Scenic Protection Area

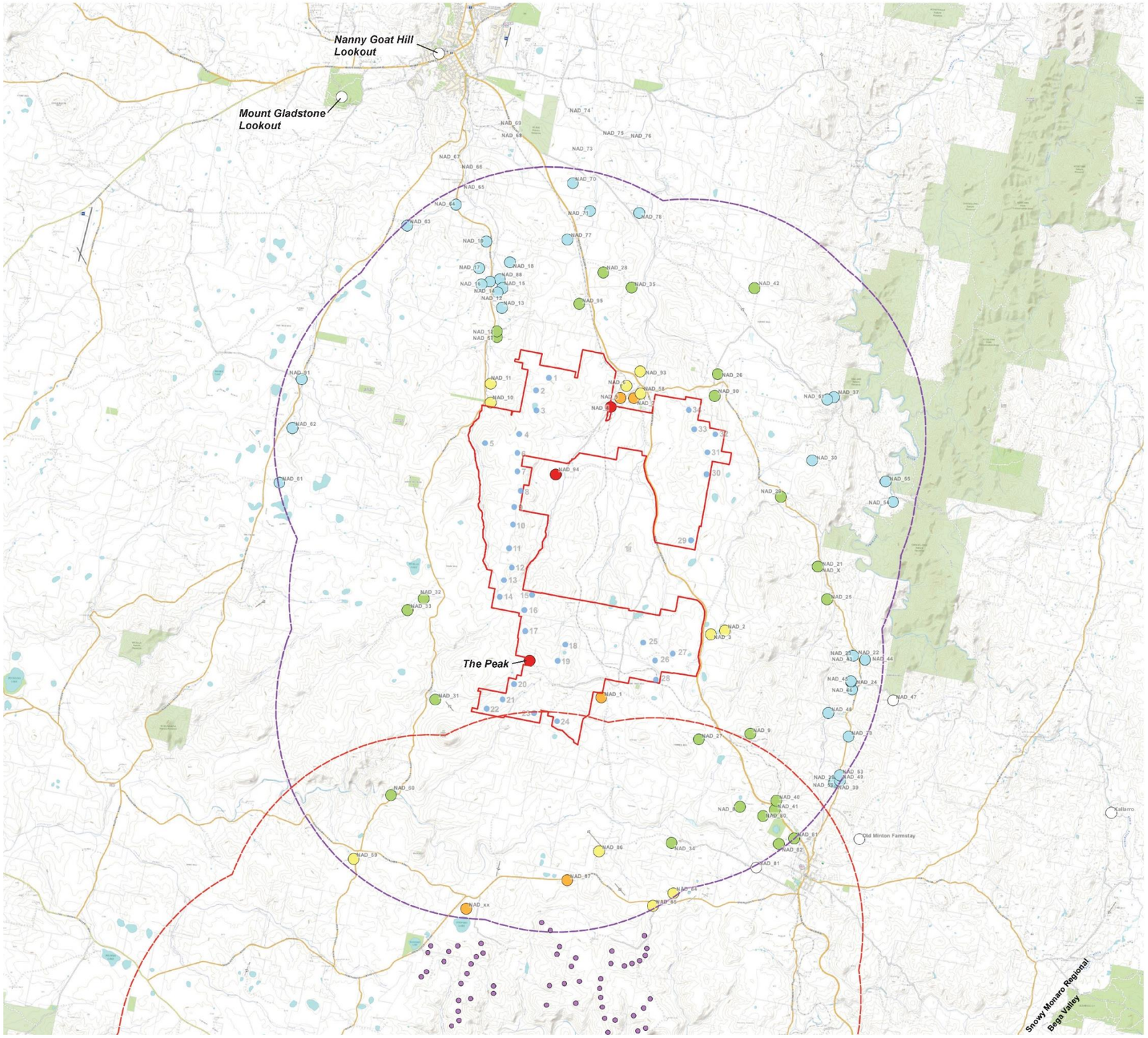
Note:

Preliminary Assessment Tool 1: Visual Magnitude is based on a 2D Assessment alone and does not take into account topography, vegetation or other screening factors which may reduce the potential for viewing turbines.

N

0 2 4 6 8 10km

Figure 6-3 Visual Magnitude of Project (Moir Landscape Architecture, 2023)



Multiple Wind Turbine Tool (Revised 34 Turbine Layout)

Coonerang Wind Farm

LEGEND

- Project Area boundary
- 266 m Coonerang Wind Farm Turbine Location
- Main Road
- Minor Road
- 8000 m from proposed turbines
- Nature Reserve / State Conservation Areas

MWTT Results for Non-associated Dwellings & key viewpoints:

- Dwellings or viewpoints in excess of 8,000 m
- One (1) 60º Sector (60º)
- Up to two (2) 60º Sectors (120º)
- Up to three (3) 60º Sectors (180º)
- Up to four (4) 60º Sectors (180º)
- Up to five (5) 60º Sectors (180º)

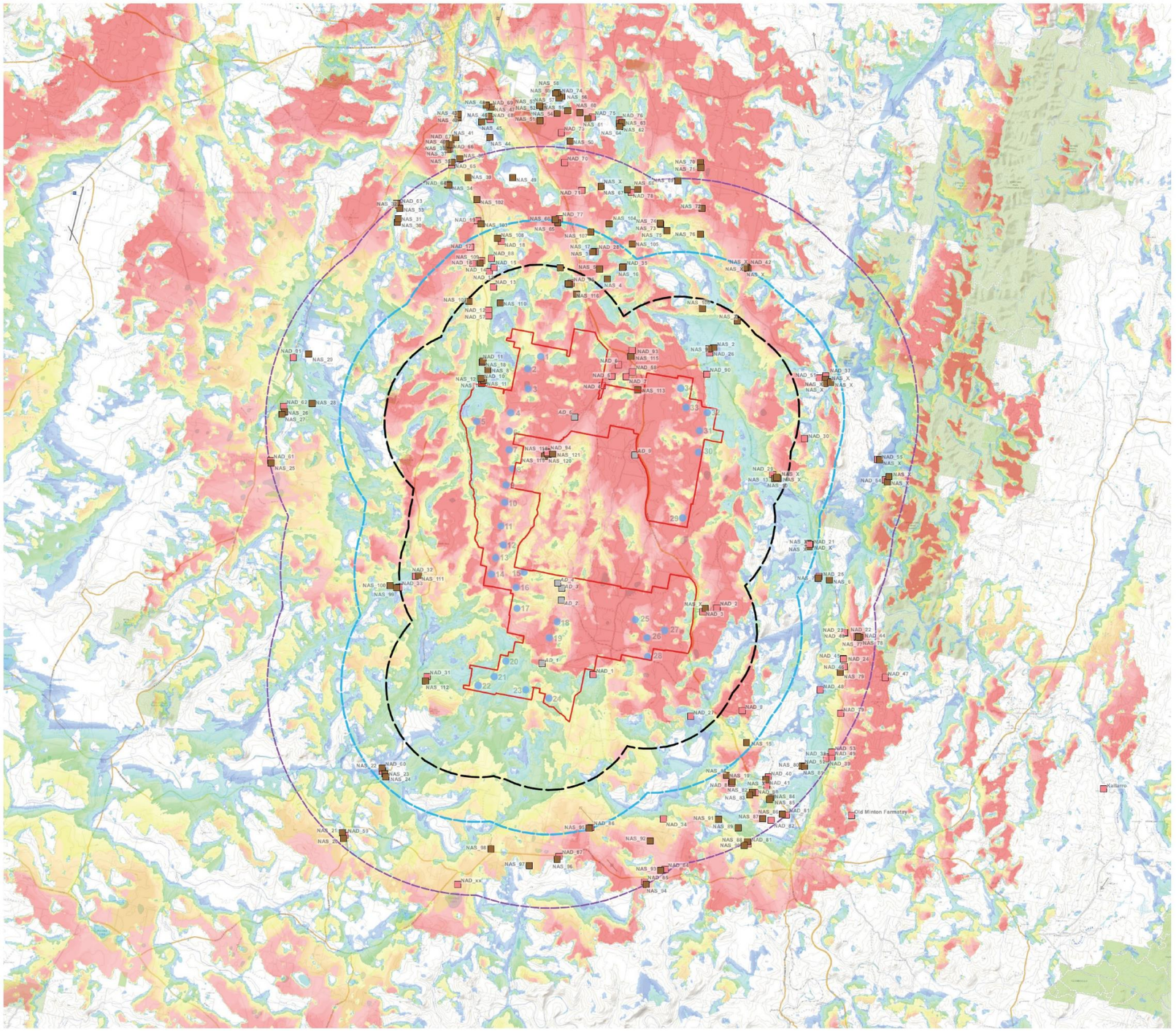
Note:

Preliminary Assessment Tool 2: Multiple Wind Turbine Tool is based on a 2D Assessment alone and does not take into account topography, vegetation or other screening factors which may reduce the potential for viewing multiple turbines.

N

0 2 4 6 8 10km

Figure 6-4 Multiple Wind Turbine analysis across the study area (Moir Landscape Architecture, 2023)



Zone of Visual Influence Blade Tip Height 266 m (Revised 34 Turbine Layout)

Coonerang Wind Farm

LEGEND

- Project Area boundary
- Proposed 266 m Turbine Location
- NAD_1 Non-associated dwellings
- AD_1 Associated dwellings
- NAS_1 Non-associated structure
- 8,000 m from nearest turbine

Number of visible turbines (at tip height)
(Based on topography alone):

- 0
- 1 - 4
- 5 - < 9
- 10 - < 15
- 16 - < 21
- 22 - < 27
- 28 - < = 34

Note:

The ZVI is a preliminary assessment tool that represents a bare ground scenario - ie. a landscape without screening, structures or vegetation. As accurate information on the height and coverage of vegetation and buildings is unavailable, it is important to note the ZVI is based solely on topographic information. Therefore this form of mapping should be acknowledged as representing the worst case scenario.

N

0 2 4 6 8 10km

Figure 6-5 Preliminary ZVI of the Project based on tip height of 266m (Moir Landscape Architecture, 2023)

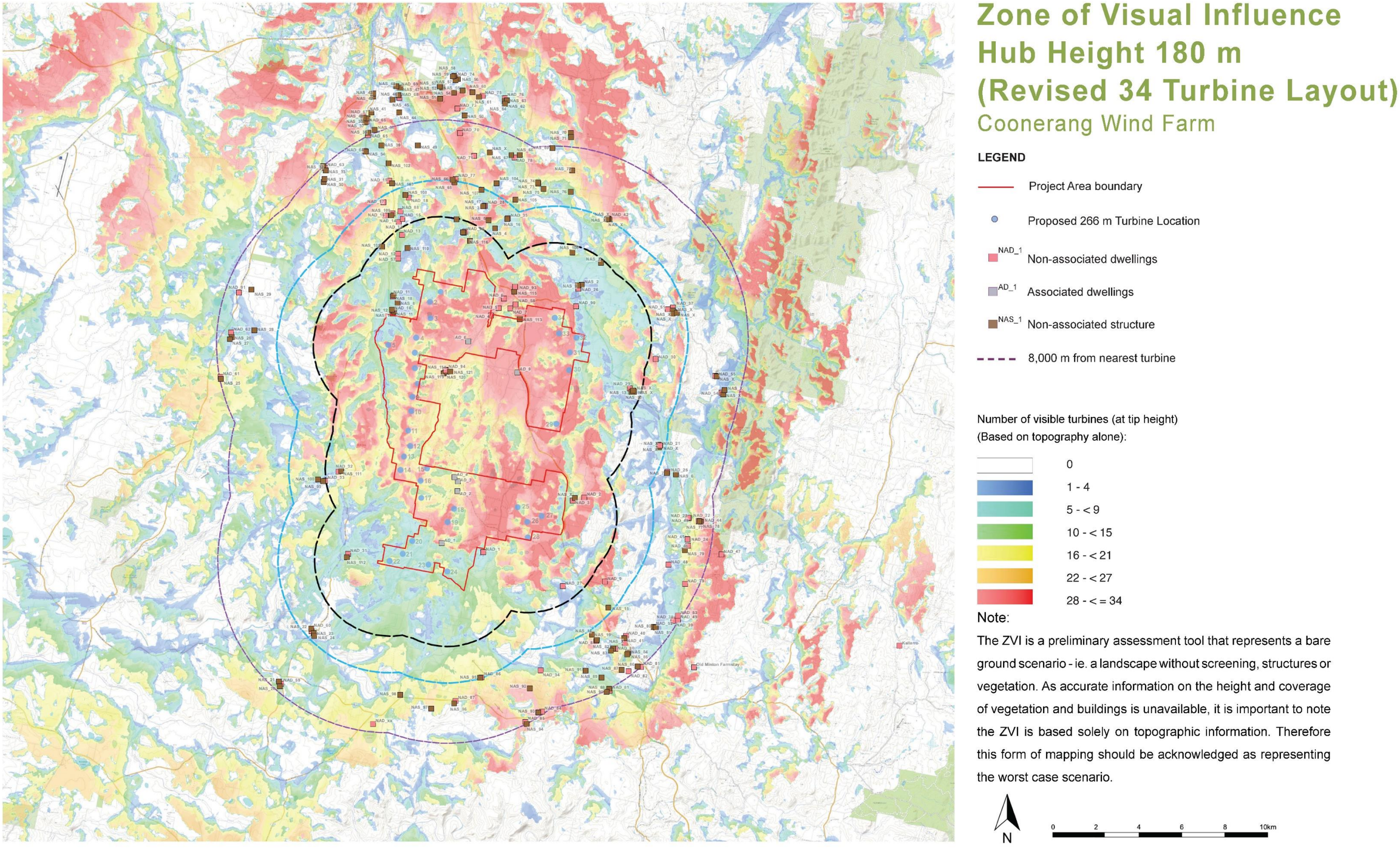


Figure 6-6 Preliminary ZVI of the Project based on hub height of 180m (Moir Landscape Architecture, 2023)

Further assessment requirements

During the EIS stage, a specialist Landscape and Visual Impact Assessment (LVIA) will be prepared to investigate the possible landscape and visual impacts of the updated layout for the Project in detail in accordance with the *Visual Assessment Bulletin* (DPE, 2016a). The LVIA would involve further ground-truthing of dwellings and refinement of potential viewpoints, generation of photomontages, and establishment of visual magnitude and sensitivity for receptors to assess the visual impact, establish performance objectives and identify mitigation strategies. It will be informed by and support ongoing and concurrent community and stakeholder engagement.

Specifically, the LVIA would involve:

Updated Project Layout

- Assessment of the updated project layout of approximately 25 wind turbines and updated ancillary infrastructure locations

Landscape character assessment

- Identified land uses, key landscape features and key viewpoints
- Categorisation of five preliminary Landscape Character Units (LCUs)
- Application of preliminary scenic quality ratings to each of the LCUs ranging from Low – Moderate
- A brief preliminary overview of the potential visual impacts has been provided for each LCU.

Preliminary visual assessment tools

- Ground-truthing of all identified non-associated dwellings
- Undertake site inspection and detailed dwelling assessment at sensitive non-associated dwellings
- The LVIA will 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.

Zone of visual influence

- Conduct further detailed assessment for areas identified as having potential visibility in the Preliminary ZVI
- Graphic representations of the Project using GIS technology including wire frame diagrams and photomontages.

Cumulative visual impacts

Further assessment and justification for placement of turbines in multiple sectors will be detailed in the EIS, along with a description of the mitigation and management measures being employed to reduce cumulative visual impacts. Further assessment may identify that factors such as topography, relative distance and existing vegetation may limit views and thereby minimise the impacts of the Project

6.1.2 Noise amenity

A specialist Preliminary Noise Impact Assessment (PNIA) has been prepared by Sonus (refer to full in Appendix C; Sonus, 2023) based on the conceptual layout. The method adopted is as prescribed by the *Wind Energy: Noise Assessment Bulletin for State significant wind energy development* (DPE 2016). Predictions have been made using the CONCAWE noise propagation model and SoundPLAN noise modelling software.

Assessment methodology and early results

Noise amenity was investigated in relation to both the operational noise generated by wind turbines operating concurrently and the operational noise from ancillary infrastructure, such as the substation and BESS.

Wind turbines

The *Bulletin* provides a criterion of 35dB(A) or 5dB(A) above the background noise level at each integer wind speed which applies to non-associated dwellings (NADs). The baseline criterion of 35dB(A) may be increased at associated residences in accordance with the *Bulletin*. This preliminary assessment is based on the baseline criteria and the conceptual layout, but background noise monitoring conducted as part of the EIS process will be carried out to further refine predicted noise levels.

The highest predicted noise from wind turbines based on the conceptual layout (corresponding to hub height wind speeds of 10m/s and above) is shown graphically in Figure 6-7 below. This shows the predicted 35dB(A), 40dB(A) and 45dB(A) noise contours.

The preliminary prediction indicates that the noise at receivers shown outside of the 35dB(A) contour achieves the baseline criterion and the noise at receivers inside of the 35dB(A) contour does not achieve the baseline criterion. The criteria will be refined during the EIS, taking into account background noise monitoring.

Key results based on the preliminary assessment of the conceptual layout to date are that:

- Five non-associated dwellings have predicted noise levels above 35dB(A) being NAD_1, NAD_10, NAD_11, NAD_90 and NAD_94 (refer to Figure 6-7).

The Project will be refined as part of the ongoing assessment and design process to seek to minimise noise impacts at all non-associated dwellings. Potential modifications to the wind turbine layout or agreements with landowners, background noise monitoring, turbine noise curtailment mode commitments all remain options that will be further considered in the preparation of the EIS.

It is noted that the preliminary noise investigations have to date modelled conservative assumptions including a 34 turbine layout, the noisiest wind turbine model that may be considered, and hard ground across the site, providing the highest opportunity for sound travel.

Ancillary infrastructure

The Policy establishes noise trigger levels based on the existing background noise environment (intrusiveness noise levels) and the amenity for particular land uses (amenity noise levels). Based on the above, the preliminary assessment has assumed a Policy noise trigger level ($LA_{eq,15\ minute}$) of 35dB(A) for ancillary infrastructure at all locations. This will be refined during the EIS based on background noise monitoring.

Key results based on the preliminary assessment of the conceptual layout to date are that:

- The highest noise level predicted at any receiver is 41dB(A) at non associated dwelling NAD_58.
- This level exceeds the 35dB(A) noise trigger level ($L_{Aeq,15\ minute}$) for ancillary infrastructure.

On this basis, noise attenuation measures would be considered during the EIS stage of the Project. Measures that may reduce the noise to a level that achieves the noise trigger level include the installation of acoustic barriers and screens, reducing the speed of the BESS cooling fans during the night, and relocating the BESS equipment to increase the separation distance to non-associated dwellings.

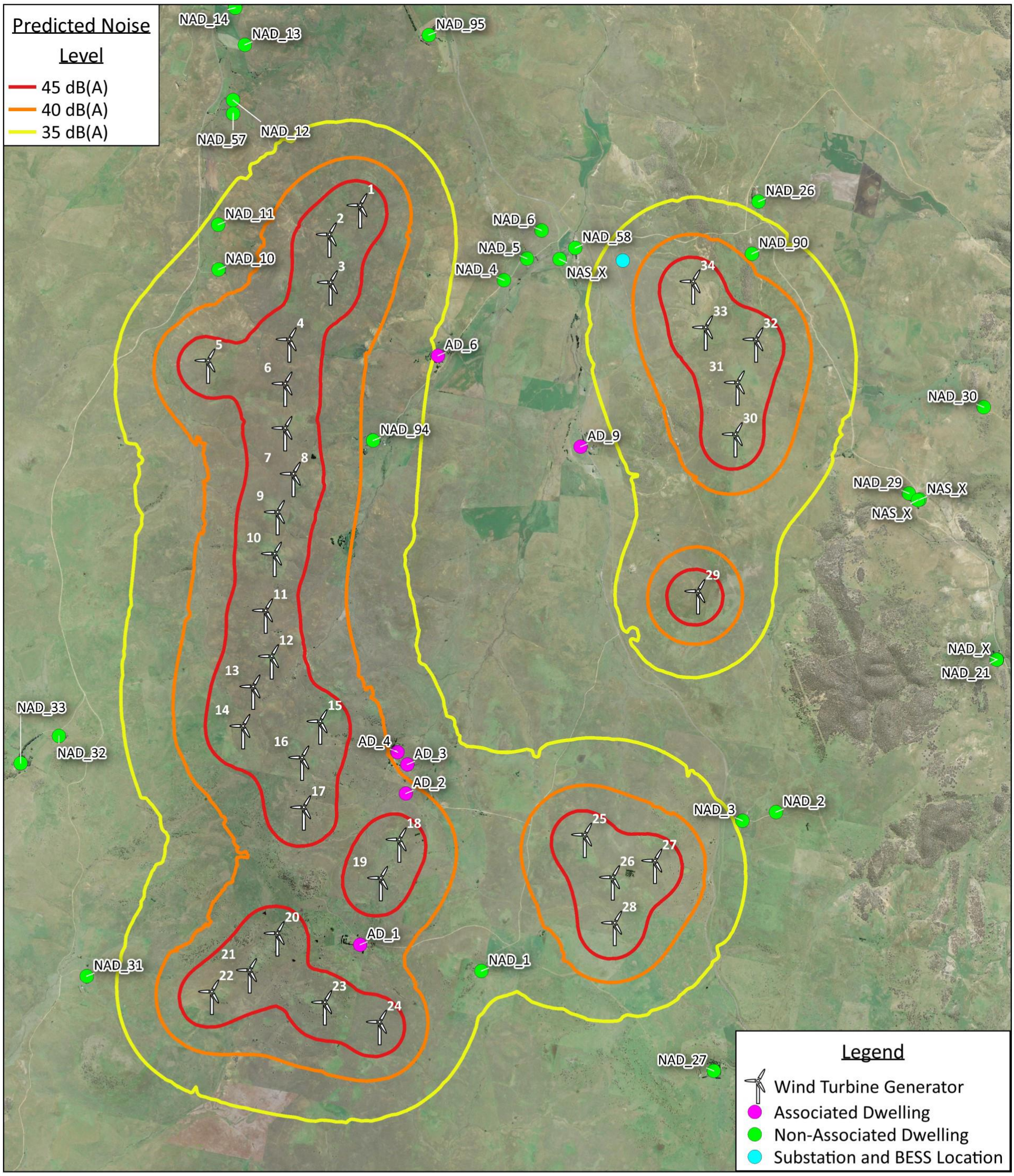


Figure 6-7 Noise contour with wind turbines and nearby receivers (Sonus, 2023).

Summary

The following table summarises the expected noise impact of the Project based on the preliminary assessment of the conceptual layout on the most highly affected non-associated dwellings (NADs) 1, 10,11,90 and 94. There is the potential to reduce noise to within acceptable levels based on the reduced number of turbines proposed and assessed for EIS and consultation with neighbours and acceptance of neighbour agreements.

Table 6-3 Summary of noise impacts

Non associated Dwelling	Worst case expected noise (dB(A))
1	36
10	38
11	36
90	39
94	39

Further assessment

A detailed acoustic assessment will be prepared based on the updated project layout and included in the EIS. This detailed acoustic assessment will address:

- Wind turbine noise in accordance with the Bulletin
- Ancillary infrastructure noise in accordance with the NSW Noise Policy for Industry, 2017
- Construction noise in accordance with the Interim Construction Noise Guideline, 2009
- Traffic noise in accordance with the NSW Road Noise Policy, 2011
- Vibration in accordance with *Assessing vibration: A Technical Guideline, 2006*.

The EIS will incorporate the following information to assist in considering the detailed assessment:

- The updated project layout of approximately 25 wind turbines and updated ancillary infrastructure locations
- Background noise monitoring results
- Establishment of criteria in accordance with the background noise monitoring results
- Predictions which account for the sound power levels and locations of wind turbines and ancillary infrastructure
- A construction noise assessment and framework for a management plan
- A traffic noise assessment and input to a management plan where required
- Commentary on vibration impacts
- Noise reduction measures including wind turbine noise curtailment mode, where the relevant operational or construction assessment criteria are not achieved.

6.1.3 Social impact

The preliminary assessment of social impacts has been undertaken by Lecroma. The Lecroma SIA report is summarised below (appended in full in Appendix D; Lecroma 2023).

Existing environment

Social locality

The social locality for this Project has been defined as the Snowy Monaro Regional LGA, with a particular focus on the town of Cooma and secondary focus on the town of Nimmitabel. The social locality includes:

- Host and adjacent/near neighbour properties, including residents and local businesses
- Localities likely to be impacted and/or benefit from the Project
- Localities likely to experience construction-related workforce, procurement, and traffic impacts.

The Snowy Mountain Regional LGA covers an area of 15,162km^2, on land traditionally home to the Ngarigo people. The LGA is situated within the Alpine and Far South Coast subregion of NSW and contains diverse environmentally significant lands. The region is characterised by rolling open plains, open grasslands, and rugged mountain ranges. It includes numerous state and National Parks, including the Deua, Kosciuszko, South East and Wadbilliga National Parks, and many nature reserves, state forests and heritage conservation areas. Extensive areas of the region are occupied by agricultural land, with a predominant focus on sheep and cattle farming (SMRC, 2022).

The Snowy Mountains Regional LGA is known for its skiing and tourism industries and the Snowy Mountains Scheme. In 2021, the population of the LGA was estimated to be 21,666 people with a median age of 43 years. The population is Projected to grow to 23,845 by 2041, an annual increase of 0.6%, with an increase in older age groups the key driver of this growth (DPE, 2022a). Summary demographic and employment indicators in this area is shown in Table 6-4.

Situated at the junction of the Monaro Highway and the Snowy Mountains Highway, Cooma is the main town within the LGA. Other towns within the LGA include Adaminaby, Berridale, Bombala, Delegate and Jindabyne. Cooma is located 114km south of Canberra and is the gateway to the Snowy Mountains. It is an important commercial centre and provides the business, retail and essential services that support an all-year round visitor economy, productive agricultural land and energy generating activities for the Snowy Mountains region. Upgrades to Cooma Hospital, Monaro High School and the planned investment in the Cooma Sports Hub will build on existing social services (DPE, 2022b).

Figure 6-8 Street view of Cooma with proposed town clock (SMR Council, 2023)

Figure 6-9 Main Street in Nimmitabel *Picture by Maksym Kozlenko* (Wikipedia, 2023)

Table 6-4 Summary demographic and employment indicators

Indicator (ABS 2021)	Nimmitabel (SAL)	Cooma (SAL)	Snowy Monaro Regional (LGA)	NSW (State)
Population (no.)	250	6,715	21,666	8,072,163
Median age (years)	46	44	43	39
Aboriginal and/or Torres Strait Islander people (%)	4.8	3.8	3.1	3.4
Top three occupations (%)	Labourers (21.1) Machinery operators & drivers (13.7) Technicians & trades workers (12.6)	Professionals (18.1) Technicians & trades workers (13.8) Community & personal services workers (13.0)	Managers (18.3) Professionals (14.0) Technicians & trades workers (13.7)	Professionals (25.8) Managers (14.6) Clerical & administrative workers (13.0)
Top three industries of employment (%)	Other construction material mining (9.5) Cake & pastry manufacturing (7.4) Accommodation (7.4)	Hydro-electricity generation (3.9) Supermarkets & grocery stores (3.6) Local government administration (3.4)	Accommodation (7.1) Cafes & restaurants (3.3) Sports & recreation venues operation (3.1)	Hospitals (4.2) Supermarkets & grocery stores (2.5) Other social assistance services (2.4)
Median weekly household income ($)	949	1,374	1,593	1,829
Unemployment rate (%)	3.0	3.8	2.8	4.9
SEIFA (decile)*	3**	3**	7	n/a

**SEIFA 2016 Census - Index of Relative Socio-economic Advantage and Disadvantage (ABS, 2018), decile index where 1 represents greater relative disadvantage and 10 represents greater relative advantage.*
*** Nimmitabel SSC; Cooma SSC (2016 ASGS).*

Assessment methodology and early results

A preliminary social impact scoping exercise has been undertaken to gain initial insight into the likely social impacts and benefits of this Project. Social impact scoping involved an initial

identification and preliminary assessment of the likely social impacts of the Project, using the Social Impact Scoping Worksheet (Appendix D).

Potential negative impacts during the construction phase include pressures on housing and short-term accommodation, the local workforce, and local social and community infrastructure, as well as changes to the composition of the local community from an influx of non-resident construction workers. Intensive construction activity is also likely to generate traffic, access, noise, health and wellbeing, and way of life impacts for nearby residents and local communities.

A summary of findings from this preliminary social impact analysis is included in Appendix D, which presents the key social impacts and benefits that will be assessed in more detail within the Social Impact Assessment (SIA) in the EIS phase.

Further assessment

The detailed SIA will allow for a more comprehensive understanding of the potential social impacts and benefits of the Project and will be undertaken in accordance with the *Social Impact Assessment Guideline for State Significant Projects* (DPIE, 2021) as well as the development of strategies to address these.

The Social Impact Assessment will also examine any other social issues raised by the community during further engagement activities. Cumulative impacts of other proposed developments in the area will also be considered.

6.1.4 Biodiversity

NGH prepared a preliminary biodiversity technical report, to ground validate the vegetation communities and habitat values at the site. This details current biodiversity values and threats at the site and has been used to direct ongoing detailed investigations (refer to Appendix E; NGH 2023). This was based on desktop assessment as well as preliminary field investigations. Biodiversity Conservation Directorate (BCD) within the NSW DPE was consulted to discuss the preliminary biodiversity technical report findings and their comments are noted in the discussion below.

Existing environment

Landscape context

Located within the South Eastern Highlands Interim Biogeographic Regionalisation for Australia (IBRA), within the Monaro subregion, the site's cool climate, high elevation and mostly treeless grasslands have potential to support several threatened species and endangered ecological communities.

Spring Creek and Brick Kiln Creek and a tributary of Brick Kiln Creek are the main waterways which run north to south inside the Subject Land; fourth order watercourses under the Strahler stream order. There are additional lower order watercourses that flow into Brick Kiln and Spring Creek and several farm dams exist which are mostly likely used as a water source for stock grazing over the land. Wetlands, dams and riparian corridors can be higher risk areas for bird and bat collisions.

Of relevance to the assessment of operational impacts, it is noted that the operational Boco Rock Wind Farm is located 8kms south of the site. This wind farm has been subject to detailed survey

and ongoing monitoring. Key biodiversity features include conservation significant grasslands. Bird and bat monitoring have not shown any unacceptable collision or sterilisation of habitat impacts that could result in adverse environmental outcomes in the seven years of monitoring.

BCD noted the high potential for Grassland Earless Dragon to occur at the site, given the good grassland condition and nearby known populations.

Ground-truthed Plant Community Types (PCTs)

Vegetation derived from two native vegetation communities (known as Plant Community Types; PCTs) were verified to occur onsite. Both are associated with conservation significant vegetation communities at the NSW for Commonwealth level. Figure 6-10 presents their general extent which will be confirmed by detailed on-site surveys during the preparation of the EIS. Whether onsite vegetation is considered as threatened will depend on its condition and extent, which will be assessed as part of the proposed Biodiversity Development Assessment Report and through detailed on-site surveys. The majority of the site is grassland of low topographic relief. The clearing requirements of the Project would be minimal to establish a network of tracks, hardstand areas and turbine footing locations within this landscape.

Large expanses of exotic (non-native) in the north of the site and invasive weeds were observed throughout the Subject Land. Invasive weeds are a threat that the Project could address as part of environmental mitigation strategies.

Table 6-5 Threatened Ecological Communities (TEC) estimated extent within Development Corridor and Development Footprint

Plant Community Type (PCT)		Conservation status	Estimated extent within the indicative Development Corridor	Estimated extent within the indicative Development Footprint
3414	Monaro Snowgrass-Kangaroo Grass Grassland	Listed Cwth EPBC Act, Critically Endangered: *Natural Temperate Grassland of the South Eastern Highlands* (Part)	1,348ha	120.2ha
3413	Monaro Kangaroo Grass Woodland-Grassland Complex	Listed NSW BC Act, Critically Endangered: *Monaro Tableland Cool Temperate Grassy Woodland in the South Eastern Highlands Bioregion* (Part) Listed Cwth EPBC Act, Critically Endangered: *Natural Temperate Grassland of the South Eastern Highlands* (Part)	285ha	18.5ha

These preliminary estimates will be refined based on the outcomes of further detailed on-site surveys. BCD raised the importance of land use to maintaining and enhancing the condition of Natural Temperate Grassland, noting successful results achieved at Boco Rock Wind Farm in this regard.

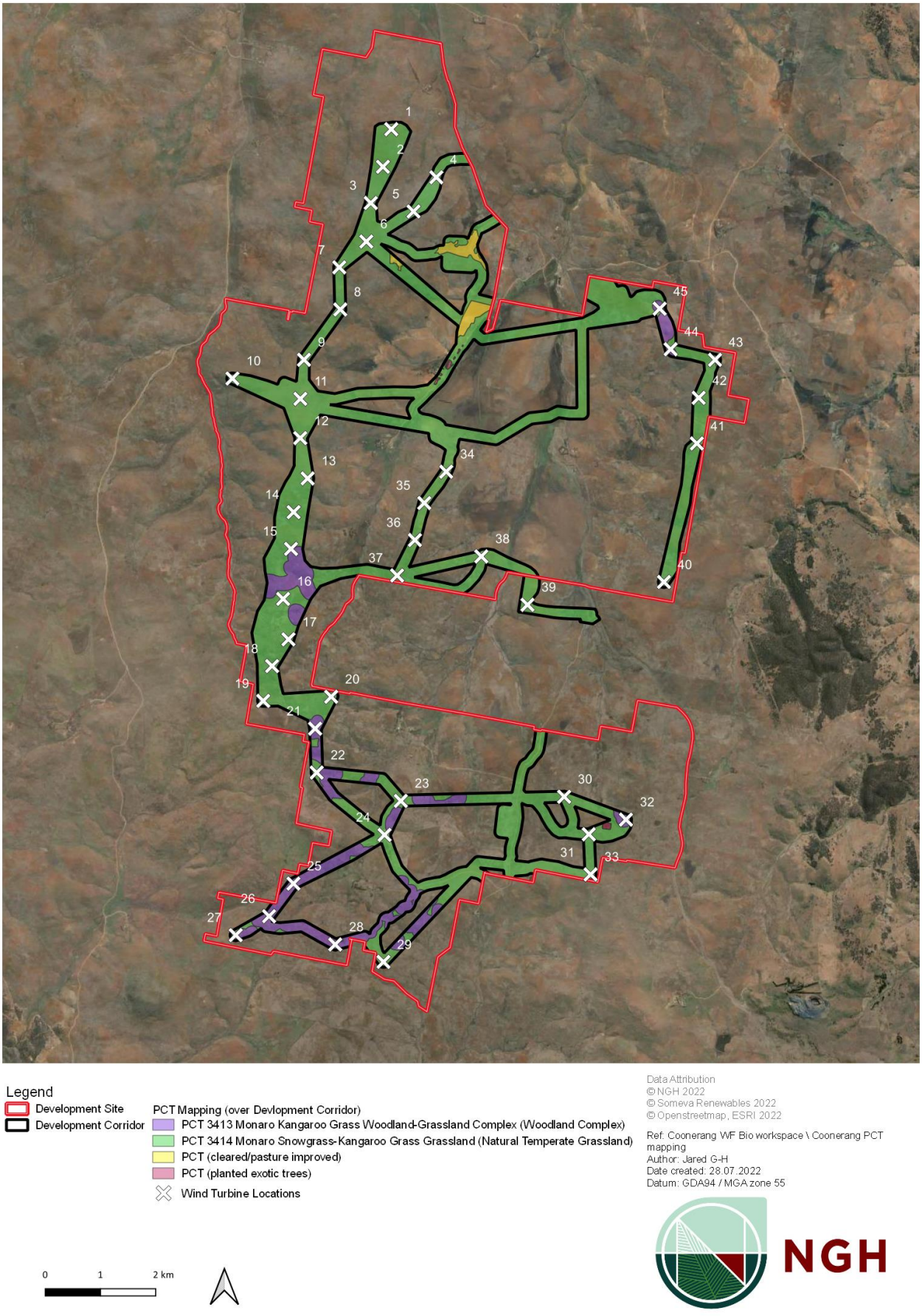


Figure 6-10 PCT mapping within the proposed Development Corridor

Habitat values

The site contains areas of potential threatened fauna and flora habitat including:

- Natural temperate grasslands
- Grasslands and loose rock outcropping, forming potential habitat for Monaro Grassland Earless Dragon (Endangered under BC Act) and Striped Legless Lizard (Vulnerable under both BC and EPBC Act)
- Exotic groundcover and loose rock outcropping, forming potential habitat for Striped Legless Lizard (Vulnerable under both BC and EPBC Act)
- Watercourses, dams and localised wetlands or soaks providing aquatic habitat for a range of fauna and flora species.
- Scattered trees and wooded vegetation patches (mostly confined to the south and eastern side of the site) providing foraging and breeding habitat for a range of fauna and flora species. They can also provide steppingstones through open landscapes.

There are currently records of Striped Legless Lizard and Grassland Earless Dragon within 2km of the existing quarry recorded from Office of Environment and Heritage (OEH) as part of targeted surveys which are mandatory monitoring required for continuing quarry operations. These species are likely to utilise Natural Temperate Grassland habitat over the main western ridgeline because the native cover contains extensive rocky habitat and presence of arthropod burrows, forming niche habitat requirements for these species.

BCD noted the relatively homogenous habitat quality and high likelihood for the Grassland Earless Dragon to occur within the Project area. BCD emphasised the need for extensive surveys in accordance with recently developed methodologies (now provided to the Applicant in subsequent correspondence).

Other threatened species that may occur include:

- Little Whip Snake (Vulnerable under BC Act)
- Pink-tailed Legless Lizard (Vulnerable under both BC and EPBC Act)
- Hoary Sunray (Endangered under EPBC Act)
- Monaro Golden Daisy (Vulnerable under both BC and EPBC Act)
- Golden Sun Moth (Vulnerable under EPBC Act)
- Silky Swainson-pea (Vulnerable under BC Act).

Serious and irreversible impacts

Serious and irreversible impact candidate entities at the site include two species of flora:

- Omeo Storksbill – occurs in inundated areas (Endangered under both BC and EPBC Act)
- Mauve Burr-daisy – occurs in grasslands where it colonises bare patches (Vulnerable under both BC and EPBC Act)

BCD noted that the Monaro Grassland Earless Dragon (Endangered under BC Act) is being considered for listing as a Serious and Irreversible Impact candidate species. This would make avoidance of this species a high priority in ongoing design as this category reflects entities considered unable to withstand further loss.

Targeted flora and fauna surveys will be carried out in appropriate survey windows and in close collaboration with BCD. This work will support detailed impact assessment of SAII candidates. The intention is to 'design out' the risk of the Project having a SAII. This will most likely be through careful infrastructure placement, management of construction impacts and ongoing monitoring to address uncertainty. At this stage, habitat areas have not been verified but would be expected to be a very low percentage of the site, if detected.

Figure 6-11 Rocky habitat which may to support threatened reptile species

Further assessment

Biodiversity Assessment Method

A Biodiversity Development Assessment Report (BDAR) be prepared in accordance with the Biodiversity Assessment Method (BAM) pursuant to the Biodiversity Conservation Act 2016. The BDAR must:

- Demonstrate how impacts have been avoided, mitigated and offset as a last resort offset. The constraints mapping provided in this report and other logistical factors should be scrutinised to ensure that the final impact areas presented have avoided impacts on key biodiversity constraints as much as possible, namely:
    - Threatened species habitat
    - TECs
    - Biodiversity Values mapping.
- Consider Serious and Irreversible Impact (SAII) entities. If a SAII is determined by an approval authority, the Project cannot be approved unless overruled by the minister. Key

risks for the Project here relate to the loss of small populations or ongoing collision impacts to threatened species.

- Consider prescribed impacts; in this case, resulting from:
    - Wind farm collision impacts

As part of the BAM process, detailed ecological surveys and further investigation and assessment would be undertaken including:

- Field validation of vegetation community mapping
- Floristic plot data (to confirm the PCTs, conservation significance, their condition and more accurate distribution)
- Targeted surveys for candidate threatened species
- Bird and bat baseline collision risk surveys (see below; prescribed impacts)
- Recommendations to avoid and minimise impacts
- Offset calculations to determine the offset obligation of the Project
- Offset planning, to ensure the offset obligation can be met.

BCD noted that suitable biodiversity stewardship sites should be progressed during the assessment period such that there is confidence in the ability to offset Project impacts.

BCD noted additional mitigation strategies are required where impacts to SAII candidates are identified which cannot be avoided. Management of grassland habitat enhancement was discussed with BCD, including rotational and restricted grazing to enhance grassland diversity.

First avoid impacts

The key mandate for a Project assessed under the BAM is to demonstrate how impacts have first been avoided; mitigation and offsets are considered only after no further avoidance is possible. For a wind farm development in gently undulating terrain, requiring a primarily linear impact footprint and with some flexibility to avoid important features, avoidance is considered highly feasible in response to further detailed survey results. Considerations likely to be included as the development is refined include:

- Detailed consideration of threatened species (particularly Grassland Earless Dragon) local population extent and Project specific impacts (BCD noted roads can fragment Grassland Earless Dragon populations).
- Micro-siting access, transmission routes and turbine locations to avoid important areas of habitat, better condition areas of vegetation and minimise fragmentation of habitat.
- Location of larger impacts footprints in more modified areas (ancillary infrastructure).
- Buffering key habitat features / collision risk features;
    - known threatened reptile habitat
    - waterways.

Overall, the percentage of land directly disturbed by the construction of the Project is likely to be in the order or 1% of the Project site. Appropriate wind farm development in grasslands and in areas of threatened reptile habitat has been successfully undertaken in NSW (Silverton Wind Farm and Boco Rock Wind Farm). Project specific impacts and mitigation options will be considered in collaboration with BCD.

A key mitigation strategy is likely to be addressing existing threats onsite, such as weed infestation and areas of erosion as well as opportunities for habitat enhancement (grassland diversity). Offset planning would consider the ability to protect higher value features as well as improve degraded areas, so the net environmental outcome is positive.

Prescribed wind farm impacts

Potential for ongoing operational collisions with birds and bats is the most significant risk of inappropriately located wind farm developments. Higher risk species are considered to be those with potential for ongoing population impacts during operation, such as:

- Migrating bats and birds, as a single migration event through the wind farm may affect a significant proportion of the local population.
- Flocking birds, where a higher number of mortalities could occur in one event.
- Colonial roosting bats, as removal of one roosting site may affect a local population.
- Raptors, which may manoeuvre close to blades to prey on carrion below. These species are at low density in the landscape and removal of even one breeding pair may be significant at a local level.
- Waterbirds, which may be less able to manoeuvre around moving turbine blades.

Most woodland birds and bats forage and move at lower than turbine height (within the shrub or tree canopy) and are considered a lower risk of impact. Sedentary species are more likely able to be avoided early in the Project design or assessed thoroughly to confirm that losses are manageable. Base line bird and bat utilisation data will be collected to inform a detailed assessment of operational risks.

EPBC referral

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 species listed under the EPBC Act. On this basis, recognition of the need to address Commonwealth matters is sought in the SEARs. A referral will be lodged shortly with the DCCEEW. All relevant EPBC Act-listed communities and species would be included in the survey program and reported within the BDAR. This will include the results of bird and bat utilisation studies to quantify bat activity onsite and the collision risk profiles of higher risk species.

A joint BCD and DCCEEW site visit is proposed, following lodgement of Scoping report.

6.1.5 Aboriginal cultural heritage

This chapter is intended to provide initial insight into the Project's possible impacts on Aboriginal objects and identify appropriate assessment pathways forward based on industry codes of practice which set guidelines for assessing Aboriginal Heritage in NSW and legislation requirements.

In NSW, Aboriginal heritage is principally protected by two legislative acts:

- *National Parks and Wildlife Act* 1974 (NSW) (NPW Act) and its subordinate legislation, the National Parks and Wildlife Regulation 2019
- *Environmental Planning and Assessment Act* 1979 (NSW) (EP&A Act)

All Aboriginal objects have protection under the NPW Act.

Existing environment

A search of relevant heritage registers for Aboriginal sites and places provides an indication of the presence of previously recorded sites in NSW. The State Heritage Inventory (SHI) database includes declared Aboriginal Places in NSW. A search of the SHI database was conducted which indicated that there are three previously recorded Aboriginal Places listed under the NPW Act within the Snowy Monaro Regional LGA, however none are within or in close proximity to the Subject Land.

The Aboriginal Heritage Information Management System (AHIMS) is a database of previously recorded Aboriginal heritage sites in NSW. A search provides basic information about any Aboriginal sites previously identified within a search area. However, a register search is not conclusive evidence of the presence or absence of Aboriginal heritage sites, as it requires that an area has been inspected and details of any sites located have been provided to add to the register. As a starting point, the AHIMS search will indicate whether any sites are known within or adjacent to the Subject Land. An extensive search of the AHIMS database was conducted over a 40km east-west by 30km north-south area centred on the Subject Land on the on 2 May 2022, with the Client Service ID: 679160. The AHIMS search identified:

- 108 Aboriginal sites
- Nil declared Aboriginal Places.

Aboriginal sites with stone artefacts (1 or more) were the dominate recorded Aboriginal site type within the AHIMS search area (n=96, 88.8%). Other Aboriginal site types also recorded in the AHIMS search area, though in significant lesser numbers, are areas with Potential Archaeological Deposit (PAD), Aboriginal Ceremony and Dreaming, Modified Tree (Carved or Scarred), Burial and Art (Pigment or Engraved). A total of two registered AHIMS sites, both with stone artefacts, have a GPS spatial location which is located within the Subject Land. No other known Aboriginal sites have been recorded on AHIMS within close proximity (within 500m) of the Subject Land.

The majority of the Subject Land is freehold where native title has been extinguished. Where native title has not been extinguished in relation to the Subject Land, the provisions of the *Native Title Act 1993* (Cwth) will be complied with prior to tenure arrangements being entered into for the Project. A search of the Register of Native Title Claims identified nil active claims across the Subject Land.

In addition to the above searches there is a range of landscape features within NSW which are generally accepted to have higher potential to contain Aboriginal objects. It is therefore necessary to consider whether there are landscape features of undisturbed land that may contain Aboriginal objects within the Subject Land. Landforms with increased Aboriginal heritage potential include:

- Areas within 200m of water
- Areas located within a sand dune system
- Areas located on a ridge top, ridge line or headland
- Areas located within 200m below or above a cliff face or
- Areas within 20m of a cave, rock shelter or cave mouth.

Some of these features, such as areas within 200m of waterways and ridge lines, are relevant to the Project. Furthermore, a number of sites with stone artefacts have been recorded in the local area and any remanent native trees may also have potential to been modified. Therefore, there is

potential for additional Aboriginal objects to exist within the Subject Land. These are most likely to be in the form of stone artefacts.

Further assessment requirements

Risks in relation to Aboriginal heritage will be confirmed based on the results field inspection and the assessment of the area proposed to be impacted within the Subject Land for this proposed development.

An Aboriginal Cultural Heritage Assessment (ACHA), which includes Aboriginal community consultation with registered stakeholders must be undertaken in conjunction with the *Aboriginal Cultural Heritage Consultation Requirements for Proponents* (DECCW, 2010) and the *Guide to Investigating Assessing and Reporting on Aboriginal Cultural Heritage in NSW* (Office of Environment and Heritage, 2011) to appropriately assess any proposed impacts on Aboriginal objects within the Subject Land. The development of the field methodology, undertaking field surveys and review of the resulting report will be undertaken with the Registered Aboriginal Parties, in accordance with these guidelines.

The ACHA and its associated Aboriginal community consultation will be completed as part of the EIS.

6.1.6 Non- Aboriginal (historic) heritage

This chapter is intended to provide initial insight into the Project's possible impacts on non-Aboriginal heritage and identify appropriate assessment pathways forward based on industry codes of practice and legislation requirements. As part of this approach appropriate database searches were undertaken for this desktop preliminary assessment.

Existing environment

Desktop searches were undertaken on 27 September 2022 of the relevant historic heritage registers including the Australian Heritage Database, the NSW State Heritage Inventory (SHI) and Section 170 registers, to identify any items that are currently listed within or adjacent to the Subject Land. The Australian Heritage Database includes items on the National and Commonwealth Heritage Lists while the SHI includes items on the State Heritage Register and items listed by state agencies and local Government.

The results of the Australian Heritage Database search indicated that:

- There is nil sites on the World Heritage List within the Snowy Monaro Regional LGA.
- There is nil sites on the National Heritage List within the Snowy Monaro Regional LGA.
- There is nil sites on the Commonwealth Heritage List within the Snowy Monaro Regional LGA.
- There is nil sites on the Register of the National Estate (a non-statutory archive) within the Snowy Monaro Regional LGA.

The results of the NSW SHI database search indicated that:

- There are thirteen (13) previously recorded heritage sites listed on the State Heritage Register within the Snowy Monaro Regional LGA. None are located within or adjacent to the Subject Land.

- There are 463 previously recorded heritage sites listed on the LEP within the Snowy Monaro Regional LGA. Six are located within the suburb of Rock Flat. Two are located within the Subject Land and two are located within close proximity (within 500m) of the Subject Land. Two additional sites are recorded within 1.3km of the Subject Land. These sites are listed below.
    - Homestead - Milton Park (I246) (within the Subject Land).
    - House – Tynedale (I243) (within the Subject Land).
    - Homestead - Rock Flat (I247) (directly adjacent to the Subject Land).
    - Rock Flat Mineral Springs and Mines (I245) (directly adjacent to the Subject Land).
    - Homestead - Kaludah (I248) (approximately 760m north of the Subject Land).
    - Homestead – Manaroo (I244) (approximately 1.3km north of the Subject Land).

Further assessment

Where it is likely that direct or indirect impacts on known historic heritage features will occur further investigation will be carried out as part of the EIS to confirm the values, potential impacts and mitigation strategies required to protect historic heritage values of the historic heritage features and any other non-listed heritage items in the locality. Risks in relation to potential historical (non-Aboriginal heritage) archaeology will be confirmed based on the results of the field inspection and the assessment of the area proposed to be impacted within the Subject Land.

Consideration of any direct and/or indirect impacts (visual) to the two known sites located within the Subject Land and two known sites located within close proximity (within 500 m) of the Subject Land will be further considered in EIS. Any proposed impacts to historic heritage will be required to be assessed as part of the EIS in accordance with the Heritage NSW guidelines for:

- Assessing Heritage Significance (2001)
- Statements of Heritage Impact (2002)
- Archaeological Assessment Guidelines (1996)
- Historical Archaeology Code of Practice (2006)
- Assessing Significance for Historical Archaeological Sites and 'Relics' (2009).

6.1.7 Access and traffic

Existing environment

The construction phase of the Project will require local road upgrades and intersection treatments, to accommodate an increase in traffic volumes and the movement of Oversize and Over-mass (OSOM) vehicles. This will include both heavy vehicles for the transport of wind turbine and BESS components, and light vehicles to transport construction workers and materials. Preliminary discussions with the Council are underway about the suitability of using Polo Flat Road to bypass Cooma for turbine component deliveries. This will be confirmed during the EIS stage.

Once construction is completed, minimal traffic will be associated with the operations of the Project, with generally only light vehicle movement of operations personnel.

Snowy Mountains Highway has a posted speed limit of 100km/hr at all three access locations. Existing sight lines are excellent at those locations with no interfering topographic or vegetation features.

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

- **New South Wales – Port Kembla**
    - Via Canberra – Hume Hwy, Federal Highway, Monaro Highway and Snowy Mountains Highway ~370km
- **New South Wales – Port of Newcastle**
    - Via Canberra – Hume Hwy, Federal Highway, Monaro Highway and Snowy Mountains Highway ~560km
- **Victoria - Port of Geelong**
    - Via Princess Highway, Monaro Highway and Snowy Mountains Highway~680km.

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

A detailed transport route study will be undertaken to determine the most appropriate route to transport OSOM 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 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 Project.

Upgrades to local roads may also be required and appropriate traffic management measures, both temporary and permanent, may be required.

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 Project. 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 Subject Land.
- Preparation of construction, operational and decommissioning traffic impact assessments.
- Detailed haulage routes for OSOM components delivered from ports to Subject Land - 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 Subject Land 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.

6.1.8 Hydrology, groundwater and water use

Spring Creek and Brick Kiln Creek and a tributary of Brick Kiln Creek are the main waterways which run north to south inside the Subject Land and are fourth order watercourses under the Strahler stream order. There are additional lower order watercourses that flow into Brick Kiln and Spring Creek and several farm dams exist which are mostly likely used as a water source for stock grazing over the land. Riparian buffers will be applied to protect local hydrology as much as possible, in accordance with best practice guidelines. For example, fourth order Strahler watercourses should be afforded a development exclusion buffer of at least 40 metres either side of the highest portion of the bank (DPE, 2022) where possible (some water way crossings will however likely be required; refer to Figure 6-12). These creeks are also mapped as Key Fish Habitat.

No wetlands of international significance are mapped inside the Subject Land.

There is one mapped groundwater bore (GW416302) within the Subject Land. Records indicate that it was drilled in 2008 and is being used for water supply.

Further assessment

The Project layout will be finalised during the EIS stage to minimise potential impacts on water courses and water front land.

Water quantities and sources required for construction and operation will be detailed in the EIS.

The EIS would assess the impacts to waterways and include appropriate mitigation measures, such as buffering these areas for avoidance, where possible, and adherence to best practice guidelines (*Guidelines for Controlled Activities on Waterfront Land* (DPI, 2012)) where avoidance is not practicable.

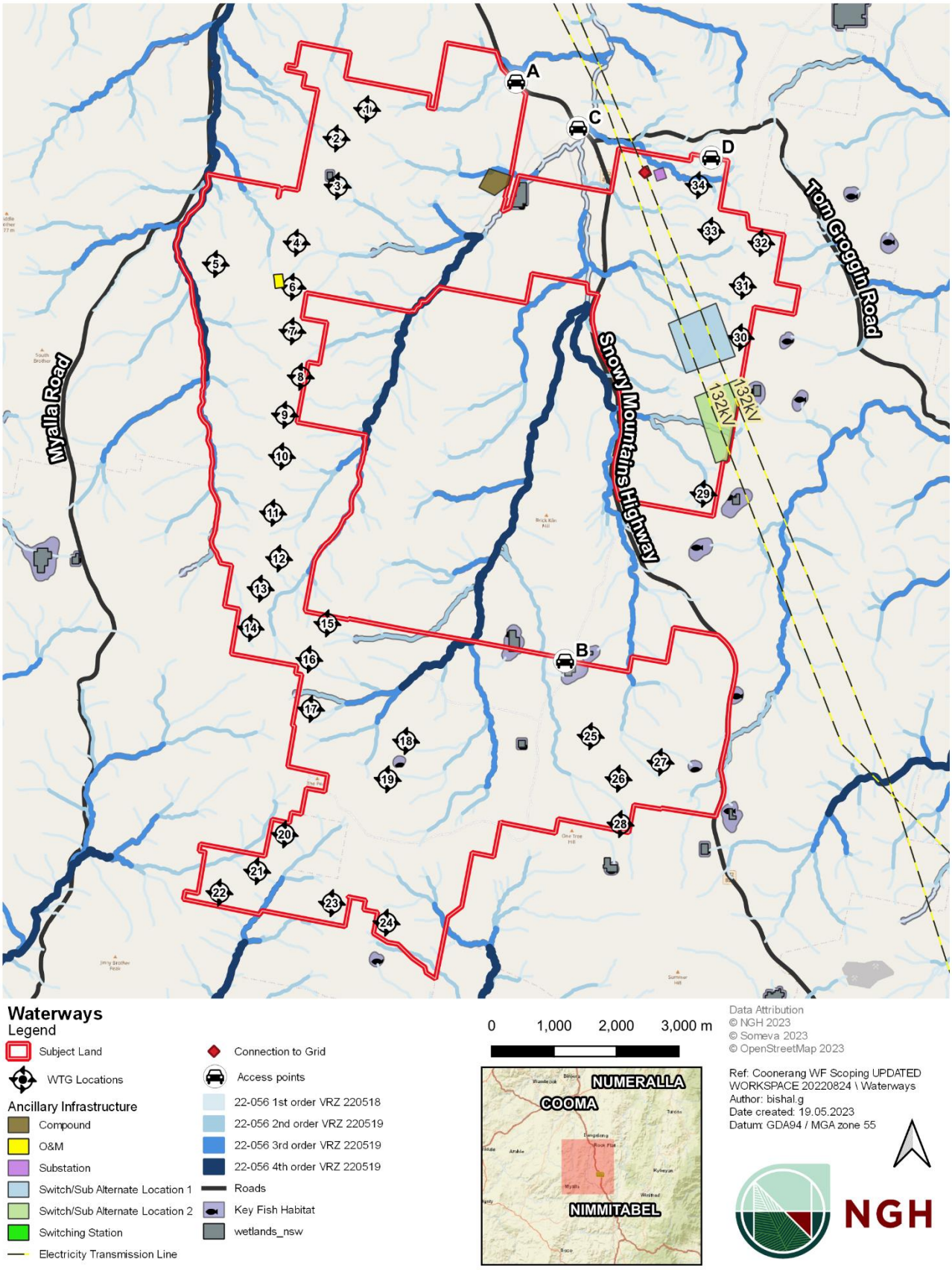


Figure 6-12 Natural and modified riparian features across the Subject Land

6.1.9 Aviation hazards

There are a number of minor airstrips are located within the Snowy Monaro LGA, of them, seven are located within 10km of the Subject Land. Desktop search shows the presence of these airstrips, but their status needs to be confirmed during a detailed site visit. No major airport is located within 10km of the Subject Land.

Cooma Airport is located at a distance of 16km north west from the Subject Land. Potential impacts to flight paths will be further assessed during the EIS stage.

Potential risks posed to aircraft from the Project that require consideration include:

- Physical obstruction – this is most notable for aircraft that are closest to the ground such as those conduct aerial spraying.
- 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 transmission lines 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.

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.

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.

6.2 Matters requiring standard assessment

6.2.1 Soils, land use, land capability

Geology and soil landscapes

The underlying geology of the Subject Land consists of:

- Cenozoic alluvial floodplain deposits - characterised by silt, very to medium grained lithic to quartz rich sands
- Quaternary alluvium – characterised by unconsolidated grey to brown to beige humic micaceous silty clay, quartz-lithic silt, fine- to medium-grained quartz-rich to quartz-lithic sand, polymictic pebble to cobble; and sporadic palaeosol horizons
- Localised Quaternary playa lake deposits (Geological Survey of NSW, 2020).

There is no soil landscape mapping currently available for the Projects site. According to the Australian Soil Classification (ASC), soil types across the Subject Land consist of ferrosol. Ferrosols do not have a strong texture contrast. Their B2 horizon has high free iron oxide (Fe >5%). Mostly, they are well structured. The parent material of ferrosols is intermediate or mafic in composition. These soils are only found in well-drained sites with rainfall between 700mm and 1,450mm (Gray, 2002).

Ferrosols have high agricultural potential because of their good structure and moderate to high chemical fertility and water-holding capacity. Their high rainfall equivalents (soils called Krasnozems) may suffer from acidification and nutrient leaching. They also have potential for structural decline (Gray, 2002).

Based on EPI data mapping, no salinity issues currently occur on or near the site. No naturally occurring asbestos is mapped within or near the Subject Land. A search of the NSW EPA Contaminated Sites Register (EPA, 2022) on 21 October 2022 identified one site within the Snowy Monaro Regional LGA, in the township of Cooma. The contaminated site which is former Shell service station is almost 10km from the Subject Land. The Subject Land does not appear on the List of NSW Contaminated Sites notified to the EPA (NSW Government, 2019c) as of 21 October 2022.

Land use

The region is a significant contributor to NSW's wool production, supplying 18% of the state's production (based on Gross Value Production; GVP), with the region also producing 14% of sheep and lamb production and 15.5% of milk production. These industries operate in an environment of increasingly global competition and opportunities, external challenges and changing land use. The Snowy Monaro Regional LGA had a total GVP of $116.7m as of 2020 (DPI, 2020). Among the 116.7M, 47.05M comes from beef, 33.71M in the form of wool, 23.94M from sheep/lamb and the rest from other.

Table 6-6 GVP by agricultural industry across the Southeast and Tablelands (DPI, 2020)

Industry	GVP (M$), 2020	% Share of Riverina-Murray region	Number of businesses	% Share of NSW
Beef	238.6	26.3	1984	9.3
Wool	171.5	19	1902	18.2
Lamb, mutton	130.5	14.4		17.8
Broadacre crops	111.6	12.3	504	2.2
Milk	101.5	10.2	146	15.5
All other	161.0	17.8		5
Total	**906**	**100**	**2866**	**6.9**

Competing non-agricultural land uses, including utility scale renewable energy developments, are perceived by the NSW Department of Primary Industries (DPI) at a state level as a key challenge for agriculture in the Southeast and Tablelands through the loss of agriculture land and changing rural landscape character (DPI, 2020). While some curtailment of current grazing activities may be required during construction, during operations, current 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 and the threats they pose to this region.

Important agricultural land

Biophysical Strategic Agricultural Land (BSAL) is land identified to have high quality soil and water resources capable of sustaining highly productive agriculture. There is some BSAL land within the Subject Land. These sites are mostly situated near waterways and not in locations suitable for wind farm infrastructure. They would be buffered to protect riparian values, in accordance with best practice management practices. It is anticipated very low impact areas may be required for water way crossings and cabling across waterways, but these areas would be strategically avoided where practicable.

Land and soil capability

NSW Land and Soil Capability (LSC) scheme maps broad-based rural land capability to sustain different land uses based on soil and landscape features and limitations.

LSC mapping for the Subject Land (refer Figure 6-13) indicates that:

- The areas around Spring Creek and Rock Flat Creek in the north western portion of the Subject Land is classified as Class 3 – High Capability Land this land is also mapped as Biophysical Strategic Agricultural Land (BSAL).
- The majority of the Subject Land is classified as Class 4 and 6- Moderate to Low Capability Land.
    - This is land not suitable for high impact agricultural land uses such as cropping. It is more suitable for grazing, with some scope for cultivation for pasture establishment.
    - This land includes sloping lands (10–20% slope) with highly erodible soils and/or significant existing soil erosion, or land that will be subject to wind erosion when cultivated and left bare. Other limitations include shallow soils, stoniness, climatic limitations, acidification, potential for structure decline and salinity hazards.
    - Soil erosion can be severe without adequate erosion control measures.
    - Salinity and acidification can be severe hazards (OEH, 2012).

National parks and conservation

There are several conservation reserves within 10km of the Subject Land. This includes Dangelong Nature Reserve is located 4.4km east and Wadjan Nature Reserve is located 5.4km east of the Development site. There is also Kybeyan Nature Reserve to the east. These nature reserves form a large and significant patch of habitat for biodiversity.

The EIS will assess any potential indirect impacts arising from the Project on these nature reserves.

Exploration and mining titles

The Department of Regional NSW's MinView spatial viewer (Geoscience NSW, 2022) was reviewed on 21 October 2022 to determine if any of the below applications or leases (including for coal, minerals, petroleum and gas) were present across the Subject Land:

- Current exploration applications or licences
- Assessment lease applications or leases
- Mining or production applications or leases.

There are no current assessment, exploration of mining applications or leases over the Subject Land.

However, there is a quarry present within the Subject Land which is known as Mount Mary Quarry and is owned by Schmidt Quarries. This quarry is not within the proposed development footprint. It is expected that this quarry could supply a large volume of the Project's imported materials during construction which would significantly reduce traffic impacts from the Project.

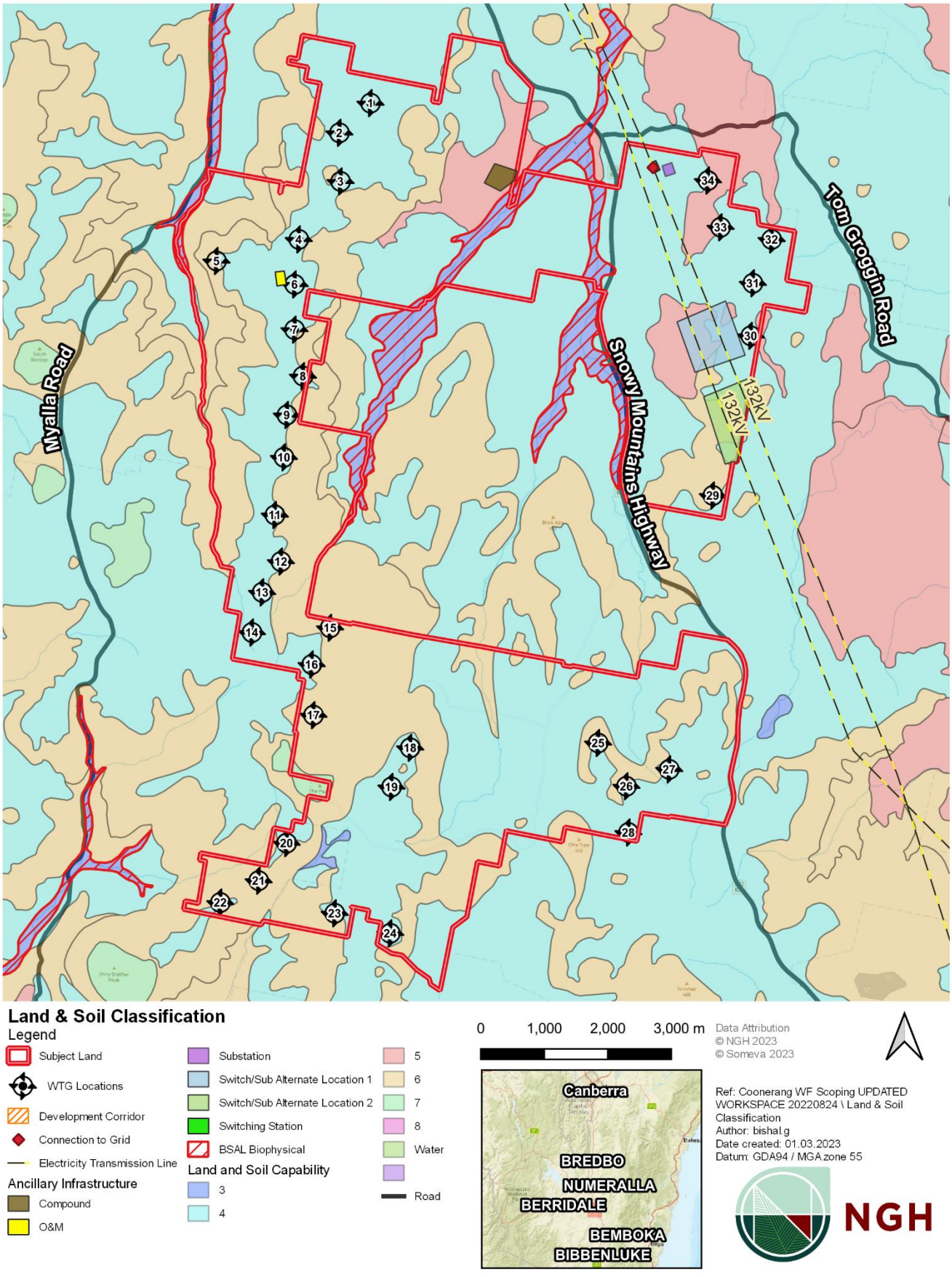


Figure 6-13 NSW Land and Soil Capability across the Subject Land including BSAL

Further assessment

Consideration of soil and erosion impacts, and proposed mitigation measures for the construction, operation and decommissioning of the wind farm would be included within the EIS. Wind turbines may be located on more steeply sloping land, depending on wind yield. Rehabilitation would be with reference to base line soil testing to guide any remedial management actions that may affect maintaining groundcover during operation or rehabilitation of disturbed areas during construction and decommissioning.

The Subject Land is located on land currently utilised for agriculture. There may be a risk of contamination associated with agricultural activities (e.g., pesticides, petrochemicals, hydrocarbon contamination) or asbestos construction or insulation materials on the Subject Land. While there was no direct evidence of this during the preliminary site assessment, this can be investigated during the EIS stage. Management plans can be developed to address this risk if confirmed, though the presence of significant contamination within the Subject Land is unlikely.

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). But, particularly surrounding wind farm infrastructure, the site is expected to be able to continue its current agricultural use with negligible adverse impact.

6.2.2 Bushfire, electric and magnetic fields hazards

Subject Land is mapped as Category 3 Bushfire prone land and is surrounded by Category 3 land on all sides. There is a small patch of category 1 land within southwestern boundary of the Subject Land. Category 1 bushfire prone land is located East of the Subject Land within Dangelong Nature Reserve and Kybean Nature Reserve.

Wind farms generally pose a low risk of starting bushfires, and the Project would employ proven and mature technology for wind turbines, BESSs and associated ancillary electrical infrastructure. Access to the site and surrounding areas will be improved, reducing response times to local fires. The Subject Land is, however, vulnerable to grassfires and this risk will need to be accounted for and managed during the construction and operation of the Project.

Electric and magnetic fields (EMFs) are associated with transmission lines and substations in the area. Additional EMFs would be generated from any proposed transmission lines, and the substation(s), during the operation of the Project. Assessment of the potential health issues and risks associated with EMF produced by the wind farm and associated electrical infrastructure will be undertaken during the EIS.

Specific to the proposed BESS, an assessment of hazard and risk would be assessed in the EIS as per *State Environmental Planning Policy (Resilience and Hazards) 2021* via a Preliminary Hazards Assessment.

6.2.3 Air quality and climate

The Australian Bureau of Meteorology (BOM) (1973–2022) climate records from the nearest climate station at Cooma Visitor Centre (station number 070278) indicates a mean summer maximum of 27.4^{o}C and a mean winter minimum of -2.6^{o}C (July) (Bureau of Meteorology, 2022). Rainfall records from the same station show a mean annual rainfall of 538.0mm, and that rainfall is

generally greatest over spring, with the average monthly maximum occurring in November (64.5mm) (Bureau of Meteorology, 2022).

The air quality in the Rock Flat area is generally expected to be good and typical of that found in a rural setting in western 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.

Operation of the Project will have a positive contribution in mitigating greenhouse gas emissions.

Construction of the Project 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.

Mitigation strategies to reduce potential air quality impacts will be detailed within the EIS.

6.2.4 Wastes and resources

The Project would generate several waste streams and utilise a variety of materials during the construction phase, operation and decommissioning including:

- Excavated materials (soil).
- Packaging materials.
- Vegetation.
- Scrap metals during decommissioning
- Lithium-ion batteries, generator components, other solid and liquid waste.

The EIS will provide thorough consideration of waste management impacts and proposed mitigation measures during construction and operation.

A Waste Management Plan would be incorporated into the Construction Environmental Management Plan (CEMP), applying the principles to avoid, re-use and recycle to minimise wastes. Cleared trees would be recycled as fauna habitat where possible.

6.2.5 Blade throw

Blade throw refers to the risk of wind turbine blades either partially or completely breaking during operation, and the potential risk of human injury or potential damage to infrastructure. Blade throw is generally considered to be a low risk during the operation phase of the Project, as a result of rigorously tested wind technology which has proven to be both safe and reliable.

A Blade Throw Risk Assessment will be prepared as part of the EIS, which will describe the potential impacts associated with blade throw to nearby residential receptors during operation of the Project. The assessment will be undertaken having consideration of applicable international standards concerning the design of WTG components.

The Blade Throw Risk Assessment will include the following scope of works:

- Assessment of the likelihood of occurrence for a blade throw event;
- Assessment of theoretical distance radii for a blade throw event;
- Review of distances between turbines and nearby dwellings;
- Review of historical blade throw occurrences in Australian wind farms; and

- Provision of relevant mitigation measures for Project implementation.

6.2.6 Cumulative impact assessment

Cumulative impacts relate to the combined potential effects of different impact areas of the Project as well as the potential interaction with other Projects in the local area. They may occur concurrently or sequentially.

The relevant cumulative impacts are those associated with other known or foreseeable developments occurring in proximity to the Project. The area of influence for the purpose of a preliminary cumulative impact assessment is defined as the Snowy Monaro Regional LGA.

Major Projects undergoing assessment or determined are listed on the NSW Major Projects Register within the Snowy Monaro Regional LGA (and their current status as of 22 August 2022) are summarised in Table 6-7. None of these projects are located within 5km of the Project.

Table 6-7 Major Projects within the Snowy Monaro Regional LGA

Project	Status
Monaro Solar Farm	Prepare EIS
Billilingra Solar Farm	SEARs
New Education Campus at Jindabyne (New Primary and High School)	Determined
Boco Rock Wind Farm MOD 1 - Removing Turbines & Increase Turbine Dimensions	Assessment
Snowy 2.0 MOD 1 - Main Access Tunnel to Marica Services Connection	Determined
Snowy 2.0 - Main Works	Determined
Snowy 2.0 - MOD 2 - Tunnelling methodology	Determined
Snowy 2.0 - Segment Factory	Determined
Snowy 2.0 - Exploratory Works	Determined
Dongwha Sawmill	Determined
Eastern Gas Pipeline Mod 1 - Port Kembla Lateral Pipeline	Determined
Heidi's Chalet Apartments	Determined
Perisher Valley Telstra Exchange	Determined
Dongwha Timbers 07_0161 MOD 4 - H2F Timber Spray System	Determined
Bullocks Flat Skitube Terminal - L'Etape	Determined
Bullocks Flat Skitube Terminal - Fencing	Determined
The Stables, Perisher	Determined
Snowy 2.0 - MOD 1 - Substation and further geotechnical investigations	Determined
Dongwha Sawmill Bombala - Mod 3	Determined

Potential cumulative impacts of overlapping construction periods are primarily associated with traffic impacts, pressures on local facilities, goods and services, socio-economic pressures

(housing, staffing) and vegetation clearing. Cumulative visual impacts may be of pertinence during the operational phase. Potential cumulative visual impacts are summarised in Section 6.1.1 and detailed in Appendix B.

Mount Mary Quarry is located within the Subject Land. It has high grade Basalt which is excellent for concreting as it has low shrinkage and is non-reactive. Details on this Quarry and its potential utilisation for construction materials will also be studied during EIS.

The Hume Highway, Monaro Highway and Snowy Mountains Highway would be used as the major haulage routes for major Projects in the region including the Subject Land. Cumulative traffic impacts on the haulage route would be assessed for impacts from major Projects.

Searches for nearby Projects was limited to DPE's Major Projects Register as these Projects are generally of larger scale than Projects captured under local council Development Applications. The search indicated that no major Projects are located within 5km of the Project. There are two proposed solar Projects and one wind farm (proposed modification) nearby as listed below:

- Monaro Solar Farm (approximately 13km Northwest of the Project) is an SSD Project which is in the stage of preparing EIS
- Boco Rock Wind Farm MOD 1 - Removing Turbines & Increase Turbine Dimensions (approximately 14km Southwest of the Project)
- Billilingra Solar Farm (approximately 32km North of the Project) which has SEARs issued.

Potential cumulative impacts would be assessed within the EIS in line with the *Cumulative Impact Assessment Guidelines for State Significant Projects* (NSW Department of Planning, Industry and Environment, 2021). This will be informed, in part, through ongoing community consultation. It would be conducted alongside assessment of cumulative impacts that are considered during the *Visual Impact Assessment* and the *Social Impact Assessment* to be prepared at the EIS stage.

The timing of works associated with the proposed developments nearby would be monitored throughout the EIS stage to ensure appropriate mitigation measures are implemented, particularly in relation to construction traffic and pressure on local services and facilities within Cooma and nearby communities.

7. Conclusion

This Scoping Report has outlined the planning and general environmental and social context of the Project. The Project would be assessed under Part 4 of the EP&A Act and classed as SSD under the Planning Systems SEPP.

The scale of impact, nature of impact and sensitivity of the receiving environment for the environmental issues has been evaluated in the scoping summary table in Appendix A. The scoping summary table stipulates the level of assessment required for each matter for the EIS phase.

- Matters requiring **detailed assessment**:
    - Landscape and visual amenity
    - Noise amenity
    - Social impacts
    - Biodiversity
    - Aboriginal cultural heritage
    - Historic heritage
    - Access and traffic
    - Hydrology, groundwater and water use
    - Hazards; aviation
- Matters requiring **standard assessment**:
    - Soils, land use, land capability
    - Hazards; bushfire, electric and magnetic fields
    - Air quality and climate
    - Wastes and resource management
    - Cumulative impacts

The key features that currently known for the site are shown in relation to the conceptual layout and its associated Development footprint on Figure 3-3.

This concept layout will be further developed and reduced to approximately **25** wind turbine sites as ongoing consultation and assessment is carried out which represent the best balance of:

- ❖ optimising energy yield and constructability factors, and
- ❖ minimising environmental and amenity impacts.

The EIS would be prepared for the updated layout in accordance with the Project-specific SEARs, once received. The detailed assessments and further stakeholder engagement will ensure the Project is refined to respond to local values and concerns. Strategies to manage all identified impacts will be included in the EIS.

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Appendix A Scoping summary table

Level of assessment	Matter	CIA[2]	Engagement	Cross reference[3]	Relevant government plans, policies and guidelines
Detailed	Biodiversity	Yes	General	Section 6.1.4	• NSW Biosecurity Strategy 2013-2021 • Biodiversity Assessment Method (BAM) (NSW Government, 2020).
Detailed	Heritage - Aboriginal	No	Specific	Section 6.1.5	• 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.
Detailed	Amenity – landscape and visual	Yes	Specific	Section 6.1.1	• NSW *Wind Energy: Visual Assessment Bulletin for State significant wind energy development*
Detailed	Amenity - noise and vibration	Yes	General	Section 6.1.2	• Construction Noise Strategy (Transport for NSW, 2012) • Interim Construction Noise Guideline (Department of Environment, Climate Change and Water, 2009) • NSW Industrial Noise Policy (Environment Protection Authority, 2000) • NSW Road Noise Policy (Environment Protection Authority, 2011) • Assessing Vibration: A Technical Guideline (Department of Environment and Conservation, 2006) • German Standard DIN 4150-3: Structural Vibration – Effects of Vibration on Structures • Environmental Noise Management Assessing Vibration: A Technical Guideline (Department of Environment and Conservation, 2006).
Detailed	Socio-economic impacts	Yes	Specific	Section 6.1.3	• Social Impact Assessment Guidelines for State Significant Projects (Department of Planning Industry and Environment, 2021) • Undertaking Engagement Guideline for State Significant Projects

[2] Cumulative Impact Assessment is relevant to this matter.
[3] Where description of potential impact is included in this Scoping Report.

Level of assessment	Matter	CIA[2]	Engagement	Cross reference[3]	Relevant government plans, policies and guidelines
					(Department of Planning Industry and Environment, 2021).
Standard	Land – land use	No	General	Section 6.2.1	• Agricultural Land Use Mapping Resources in NSW • The Land and Soil Capability Scheme (Office of Environment and Heritage, 2012).
Detailed	Access – traffic	Yes	Specific	Section 6.1.7	• Austroads Guidelines for Road Design (Austroads) • Austroads Guidelines for Traffic Management (Austroads) • Guide to Traffic Management – Part 3 Traffic Studies and Analysis (Austroads, 2013).
Standard	Land – soils and contamination	No	General	Section 6.2.1	• Acid Sulphate Soils Assessment Guidelines (Department of Planning, 2008) • 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.
Detailed	Water – hydrology and groundwaters	No	General	Section 6.1.8	• 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).

Level of assessment	Matter	CIA[2]	Engagement	Cross reference[3]	Relevant government plans, policies and guidelines
					• NSW Government's Floodplain Development Manual (2005).
Detailed	Heritage – non-indigenous	No	Specific	Section 6.1.6	• Commonwealth EPBC 1.1 Significant Impact Guidelines – Matters of National Environmental Significance (Commonwealth of Australia, 2013) • Commonwealth EPBC 1.2 Significant Impact Guidelines – Actions on, or impacting upon, Commonwealth Land and Actions by Commonwealth Agencies (Commonwealth of Australia, 2013) • NSW Skeletal Remains: Guidelines for Management of Human Remains (Heritage Office, 1998) • Criteria for the Assessment of Excavation Directors (NSW Heritage Council, 2011).
Detailed	Hazards and risks - aviation	No	General	Section 6.1.9	• 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)
Standard	Hazards and risks - bushfire	No	General	Section 6.2.2	• Planning for Bushfire Protection (NSW Rural Fire Service, 2019).
Standard	Hazards and risks - EMF	No	General	Section 6.2.2	• NSW Large-scale solar energy guideline for State Significant Development (Department of Planning and Environment, 2018).
Standard	Air - air quality and climate	No	General	Section 6.2.3	• NSW Climate Change Policy Framework (Office of Environment and Heritage, 2016) • National Greenhouse Accounts Factors (Australian Government, 2021)
Standard	Waste Management	No	General	Section 6.2.4	• Waste Classification Guidelines (DECCW, 2009)
Standard	Cumulative impacts	N/A	General	Section 6.2.6	• Cumulative Impact Assessment Guidelines for State Significant Projects (Department of Planning Industry and Environment, 2021)

Appendix B Preliminary visual impact assessment

Appendix C Preliminary noise impact assessment

Appendix D Community engagement and preliminary social impact assessment

Appendix E Preliminary biodiversity technical report

Appendix F 3D Wireframe analysis