Premise

MERINO SOLAR FARM PTY LTD

Scoping Report

MERINO SOLAR FARM

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1. INTRODUCTION

1.1 Overview

Premise Australia has been engaged by Merino Solar Farm Pty Ltd (MSF Pty Ltd, 'The Applicant') to prepare this Scoping Report to support a State Significant Development (SSD) application relating to multiple lots detailed in **Table 1** (hereafter referred to as 'the site').

The SSD application is for the development of electricity generating works (incorporating a solar farm, battery energy storage system [BESS] and associated works). The estimated output of the solar farm is approximately 450-megawatts (MW_{AC}) with an approximately 300 MW, 4 hour duration BESS.

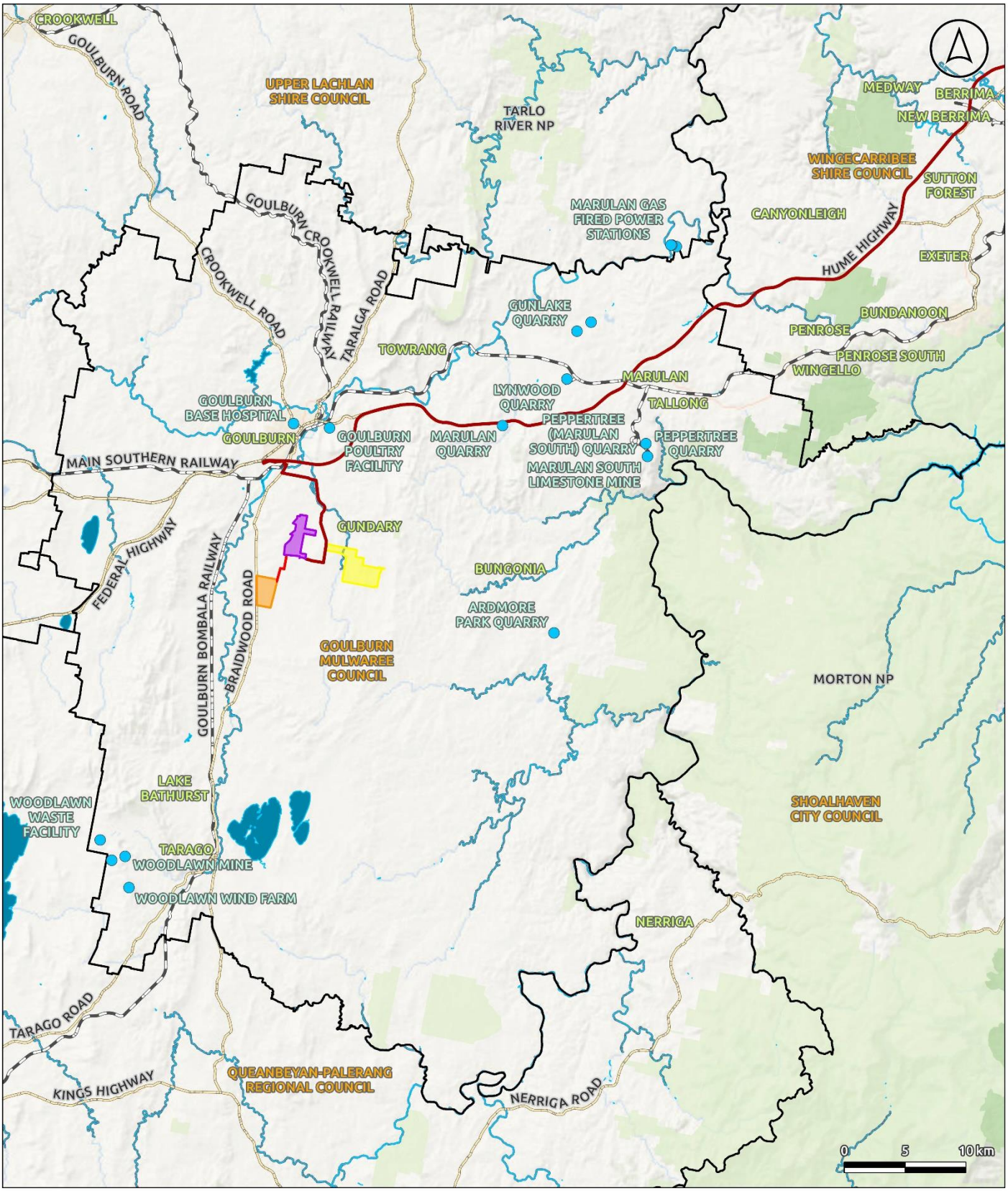
The project is a SSD under Section 20, Schedule 1 of the *State Environmental Planning Policy (Planning Systems) 2021* (Systems SEPP), given effect under Section 2.6(1)(b) of the Systems SEPP. The applicable consent authority for the proposal is the NSW Minister for Planning or the Minister's delegate.

The intent of the Scoping Report is to seek the Secretary's Environmental Assessment Requirements (SEARs) from the Department of Planning and Environment (DPE), which will inform the preparation of an Environmental Impact Statement (EIS) submitted under Part 4 of the *Environmental Planning and Assessment Act 1979* (the EP&A Act). A Scoping Report Summary Table is provided at **Appendix A**.

The site is located in the Goulburn Mulwaree Council (GMC) Local Government Area (LGA), in the locality of Tirrannaville (refer to **Figure 2**). The project site is divided into two areas identified as the 'Northern site' and the 'Southern site'. The combined area of the site is approximately 760 hectares and both portions are accessible from Braidwood Road and Windellama Road. The northern portion can also be accessed from Gundary Lane, and the southern portion also has the opportunity to be accessed via Painters Lane. The site is currently predominantly used for primary production.

The project is to be known as the Merino Solar Farm (MSF). The MSF includes the following within the development footprint, with the host land to be leased from a number of landowners via a Lease of Premises (LoP):

- Installation of photovoltaic solar panel modules, using Crystalline silicon technology, mounted on an east-west orientated tracking system with a total capacity of 450 MW_{AC};
- Installation of lithium-ion batteries with a capacity of up to 300 MW_{AC} and a duration of up to 4 hours;
- Installation of an enclosed site substation within the south-western corner of Northern site including a transformer to increase voltage to 330kV and a connection to existing TransGrid power lines to the south of the northern site;
- An array of inverters and transformers together with an AC collection system consisting of underground 33 kV sub-transmission lines to connect the solar farm and BESS to the site substation;
- Cabling and collector units, site office, storage area, internal access tracks, on-site parking, security fencing, lighting and temporary construction laydown area; and
- Utilisation of existing and proposed site accesses from Braidwood Road, Painters Lane, Windellama Road and Gundary Lane (with the final decision on access to be determined through a detailed traffic impact assessment and engagement with adjacent landowners and Council.



GDA2020 MGA Zone 55 File: 221299_03.aprx Prepared By: adam.davis Date: 10/02/2023

Legend

Project Area
- Northern Site
- Southern Site
- Proposed Transmission Line Route
- Proposed Gundary Solar Farm
- LGA Boundary
- Major Road
- Railway
- Major Water Body
- Major Watercourse
- NPWS Reserve
- State Forest
- Proposed Materials Transport Route
- Major Projects Within Goulburn-Mulwaree LGA

Premise

MERINO SOLAR FARM PTY LTD

Goulburn Merino Solar Farm

Figure 1 - Regional context

A sub-transmission would connect the northern and southern sections of the site to the site sub-station, and a second sub-transmission line would connect the sub-station to the existing 330kV overhead powerlines that traverse the northern site in an east-west alignment.

Whether connections would be managed as an ancillary component of the project and addressed in the EIS or managed by MSF Pty Ltd via Part 5 of the EP&A Act is to be confirmed as the project progresses. In order to ensure a conservative assessment, assessment of impacts associated with the connecting ETL will be included in the EIS.

Table 1 – The site

Portion	Lot	DP	Address	Size (hectares)
Northern	Part 4842	1145918	4844 Braidwood Road, Tirrannaville	109.51
	Part X	38377		235.54
	Part 7	172130	876 Windellama Road, Gundary	37.89
	Part 5	1124660	100 Gundary Lane, Gundary	17.06
Connection	Part 12	631837	4672 Braidwood Road, Tirrannaville	6.84
	Part 1	593528	139 Painters Lane, Tirrannaville	3.17
	N/A	N/A	Painters Lane road reserve	0.6
Southern	1	877935	4402 Braidwood Road, Tirrannaville	346.45
			TOTAL	757.06

An access option to the northern site from Braidwood Road is also being investigated via Lot 2 DP1140024.

No other land is currently being considered for the project.

1.2 Applicant

MSF is a joint venture of Terrain Solar Pty Ltd and ITP Development Pty Ltd, with the project applicant being the Merino Solar Farm Pty Ltd.

Terrain Solar is an Australian owned and operated business that is developing innovative and strategically located solar farms across regional Australia. From initially locating suitable land and partnering with landowners, they take projects through engineering design, planning approval, grid connection, financing & investment stages and into construction and operation. Terrain Solar is based in in Sydney, NSW and its ABN is 13 616 856 172.

ITP Development is a developer of town-scale solar farms in regional Australia, undertaking solar farm landholder engagement, system design, planning approvals, financing, electrical connection approvals and commissioning. ITP Development's address is Level 1, 19 Moore Street, Turner, ACT, 2612 and its ABN is 38 633 420 309.

1.3 Planning Framework

The proposed solar farm and BESS is defined as *electricity generating works* under the *Goulburn Mulwaree Local Environmental Plan 2009* (the GMLEP 2009), being;

> *a building or place used for the purpose of—*

(a) making or generating electricity, or

(b) electricity storage

The proposed development is SSD on the following basis:

1. Section 4.36(2) of the EP&A Act 1979 provides that a State Environmental Planning Policy (SEPP) may declare any development, or any class or description of development, to be SSD.
2. Clause 2.6(1) of the Systems SEPP provides that development is declared to be SSD for the purposes of the Act if:

(a) the development on the land concerned is, by the operation of an environmental planning instrument, not permissible without development consent under Part 4 of the Act, and

(b) the development is specified in Schedule 1 or 2.

The proposed development satisfies clause 2.6(1)(a) of the Systems SEPP as electricity generating works are permitted with consent within prescribed rural zones under clause 2.36(1)(b) of *State Environmental Planning Policy (Transport and Infrastructure) 2021* (the Infrastructure SEPP). Under clause 2.35 of the Infrastructure SEPP, prescribed rural zones include the RU1 Primary Production zone. A proposed power line connection to the grid is permissible as an ancillary component of an electricity generating works.

The proposed development satisfies Section 2.6(1)(b) of the Systems SEPP on the grounds that it is for the purposes of electricity generating works which have a capital investment value (CIV) of more than $30 million in accordance with Section 20, Schedule 1 of the Systems SEPP.

As the proposed development contains a battery energy storage system with a capacity of greater than 30 megawatts, the development represents designated development by reference to Clause 7 of Schedule 3 of the EP&A Regulations. However, Section 4.10(2) of the EP&A Act provides that state significant development is not designated development. In any event, the requirement in relation to the designated development is to prepare an EIS in support of the DA. This is also a requirement of the SSD process, and thus there is no demonstrable difference in the approach.

On the basis that it is likely that there may be some impacts to waterfront land [as defined by Section 91 of the *Water Management Act 2000* (WM Act)], the development would ordinarily represent integrated development pursuant to Section 4.46 of the EP&A Act. However, the integrated provisions under Section 4.46 do not apply to SSD projects. Notwithstanding, the requirements of DPE Water will be a key consideration in assessment of the application. Subject to detailed assessments, there is the potential that other integrated provisions under Section 4.46 may also apply.

1.4 Report Structure

In accordance with the State Significant Development Guidelines – Preparing a Scoping Report (DPIE 2022), the report is structured as follows:

- **Section 1** introduces the site, its location, the proposed development and the planning framework.
- **Section 2** details the development's strategic context.
- **Section 3** provides a description of the proposed project.
- Section 3.3 provides the statutory context.
- **Section 5** provides details of community engagement.
- **Section 6** provides a summary of the assessment of project impacts.

2. STRATEGIC CONTEXT

2.1 Policy

2.1.1 NSW ELECTRICITY INFRASTRUCTURE ROADMAP (DPIE 2020)

DPIE released the NSW Electricity Infrastructure Roadmap in November 2020. Key actions from the Roadmap include:

- Renewable Energy Zones (REZs);
- Transmissions development scheme;
- Electricity Infrastructure Investment Safeguard;
- Pumped Hydro Recoverable Grants Program; and
- Internationally competitive NSW industries.

Five REZs are at various stages of development including in the Central West-Orana, New England, South-West, Hunter-Central Coast and Illawarra, selected based on the availability of resources and existing connecting infrastructure. Whilst the site is not located within any of the current REZs:

- The site is mapped under the Renewable Energy Map of New South Wales (NSW Government 2018) as receiving the same or higher level of average daily solar exposure (megajoules per square metre) as parts of the New England REZ and parts of the Hunter-Central Coast REZ; and
- There is a high density of existing and planned wind and solar energy projects in the vicinity of the site.

2.1.2 DRAFT SOUTH EAST AND TABLELANDS REGIONAL PLAN 2041

DPE released the *Draft South East and Tablelands Regional Plan 2041* (the Plan) on 9 December 2022. The plan has set the following core vision for the region:

> *By 2040, the South East and Tablelands will be recognised as A region of collaboration and innovation, demonstrated through increased investment in tourism, renewable energy generation, sustainable agriculture and smart manufacturing. Country is widely recognised, with Aboriginal people providing valued strategic input into the region's future. The provision of quality, safe and fit for purpose housing, infrastructure and services attracts and retains people within our communities, with the natural environment being embedded at the heart of planning and decision-making.*

The vision is supported by 25 objectives across five themes. The following themes and objectives are relevant to the proposed development:

- *Theme 1 – Recognising Country, people and place*
  - *Objective 1 – Build capacity for shared knowledge about Aboriginal culture in land use planning*
  - *Objective 4 – Preserve the heritage and character of the region's towns and villages*
- *Theme 2 – Enhancing sustainable and resilient environments*
  - *Objective 5 – Protect important environmental assets*

- *Objective 6 – Enhance biodiversity, habitats and the connections between them*
- *Objective 7 – Build resilient places and communities*
- *Objective 8 – Plan for a net zero region by 2050*
- *Objective 9 – Secure water resources*

- *Theme 3 – Leveraging diverse economic identities*
  - *Objective 11 –Realise economic benefits from a connected regional economy*
  - *Objective 13 – Promote innovation and sustainability in agriculture and aquaculture industries*
  - *Objective 14 – Support the development of a circular economy*
  - *Objective 15 – Promote business and employment opportunities in strategic locations*
- *Theme 4 – Planning for fit for purpose housing and services*
  - *Objective 21 – Provide efficient access to infrastructure and services*
- *Theme 5 – Supporting a connected and active region*
  - *Objective 25 – Adapt infrastructure to meet future needs*

The proposed development is consistent with Objective 8 as it seeks to enable electricity generation from renewable sources, which will contribute to a net zero region by 2050. In the context of the specific plan themes, the following is noted:

- With respect to Theme 1; the heritage of the site and area.
  - The heritage significance of the site is to be recognised through Aboriginal and non-Aboriginal heritage investigations to be conducted following receipt of SEARs (refer to **Section 6.9.2**). The heritage significance of the area is to be recognised through responsible design to avoid impacts to nearby heritage items listed under the GMLEP 2009, including Item No. I595 "Tirranna" homestead, gardens, Gibson family cemetery and veterans allotments (circa 1829), Item No. I596 Tirranna Public School (1869), Item No. I597 St Andrew's Anglican Church and Cemetery (1860) and Item No. I599 "Pelican" homestead and shearing shed (1860). Any residual impacts to be appropriately mitigated - refer to **Section 6.9.2**.
- With respect to Theme 2; contributing to environmental sustainability and resilience by improving availability of electricity from renewable sources, as opposed to finite resources.
  - This is to be achieved through delivery of a renewable energy supply, including battery storage, designed and sited to ensure nothing more than acceptable impacts on the environmental assets of the site including water resources (refer to **Section 6.12**) and biodiversity, habitats and the connections between them (refer to **Section 6.5**).
- With respect to Theme 3;
  - The project will seek to leverage existing skills within the community and support the local economy by creating employment opportunities during both the construction and operation phase

(refer to **Section 6.7**), without impacting the agricultural viability of the land (refer to **Section 6.10.2**).

- With respect to Theme 5;
  - The project will provide infrastructure (electricity) that is critical to the region and State, whilst drawing on minimal infrastructure itself due to the relatively benign nature of the use once operational.

On the basis of the above assessment, it is considered that the proposal is generally consistent with the provisions of the Plan.

2.1.3 GOULBURN MULWAREE LOCAL STRATEGIC PLANNING STATEMENT

GSC adopted the *Goulburn Mulwaree Local Strategic Planning Statement* (LSPS) in August 2020. The LSPS sets ten Planning Priorities for the LGA, each supported by identified Challenges, Planning Principles and Actions. The following Planning Priorities and Planning Principles are relevant to the proposed development:

1. *Infrastructure*

- *Ensure planning decisions protect essential infrastructure assets including water, freight corridors, waste and sewerage management facilities from encroachment by more sensitive or unsuitable uses.*
- *New development and planning decisions provide for adequate infrastructure (water, sewerage, stormwater management) to accommodate new development.*

5. *Primary Industry*

- *Ensure local planning provisions provide adequate protection for primary industry activities while also balancing the interests of the community.*
- *Promote renewable energy projects.*
- *The co-location of renewable energy projects should occur where possible, in order to maximise infrastructure, including corridors with access to the electricity network.*

6. *Industry and Economy*

- *Collaborate with other levels of government, industry and other stakeholders to identify, plan and secure investment for infrastructure required to support growth and sustainability in the region.*

7. *Sustainability*

- *Incorporate best practice energy, water and waste management in new development.*

8. *Natural Hazards*

- *Identification and mitigation of vulnerabilities to natural hazards is incorporated into planning provisions.*
- *Local hazard risk assessments inform land use planning decisions so as to not increase the population at risk or the demand on emergency services.*

- *Consideration of updated climate information to be undertaken in Council decision making.*

9. *Heritage*

- *Maintain planning provisions to protect and conserve heritage items and conservation areas*
- *Undertake planning projects to promote and highlight the area's heritage assets.*
- *Ensure the preservation of Aboriginal heritage and culture at both strategic and development assessment stages of planning.*

10. *Natural Environment*

- *Preserve and maintain natural environments*
- *Identify and enhance biodiversity connections.*
- *Protect waterways and catchments.*
- *Maintain a balance between growth, development and environmental protection*

Consistent with Planning Priority 5, the proposed development is for the purpose of generating electricity from renewable sources. With respect to the specific Planning Priorities within the LSPS, the following is noted:

- With respect to Planning Priority 1:
  - The project seeks to provide infrastructure (electricity and battery storage) that is critical to the region and State, whilst drawing on minimal infrastructure itself due to the relatively benign nature of the use once operational.
- With respect to Planning Priority 5:
  - the project seeks to deliver a renewable energy project with the stated objective of maintaining the agricultural viability of the land (refer to **Section 6.10.2**).
- With respect to Planning Priority 6:
  - The project would seek to leverage local industry and provide flow on benefits to the local and regional economy by creating employment opportunities during both the construction and operation phase (refer to **Section 6.7**).
- With respect to Planning Priority 7:
  - The project seeks to contribute to sustainability by improving availability of electricity from renewable sources, as opposed to finite resources. This is achieved whilst drawing on minimal infrastructure itself as discussed above.
- With respect to Planning Priority 8:
  - The project seeks to mitigate risks posed by natural hazards such as fire (refer to **Section 6.8.2**) and flood (refer to **Section 6.12**) through avoidance and management.
- With respect to Planning Priority 9:
  - The project seeks to recognise the heritage of the site and area. The heritage significance of the site is to be recognised through Aboriginal and non-Aboriginal heritage investigations to be conducted

following receipt of SEARs (refer to **Section 6.9**). The historic heritage significance of the area is to be recognised through mitigation of impacts on nearby heritage items listed under the GMLEP 2009, including Item No. I595 "Tirranna" homestead, gardens, Gibson family cemetery and veterans allotments (circa 1829), Item No. I596 Tirranna Public School (1869), Item No. I597 St Andrew's Anglican Church and Cemetery (1860) and Item No. I599 "Pelican" homestead and shearing shed (1860) (refer to **Section 6.9.2**).

- With respect to Planning Priority 10:
  - If approved, the project would result in acceptable residual impacts on the environmental assets of the site including water resources (refer to **Section 6.12**) and biodiversity, habitats and the connections between them (refer to **Section 6.5**).

In the context of Section 2.42 of the Transport SEPP, the project area is located to the south of areas identified by the LSPS as being identified for the delivery of future residential development and thus does not inhibit the capacity for growth of the city of Goulburn. This is further discussed in **Section 4.1.2.1**.

2.1.4 GOULBURN MULWAREE COMMUNITY STRATEGIC PLAN 2042

The *Goulburn Mulwaree Community Strategic Plan 2042* (CSP) identifies the community's main priorities and aspirations for the future. It contains the vision for the GMC LGA region being:

> *To build and maintain sustainable communities while recognising and respecting the region's environment and heritage*

The CSP vision defines the following major categories as focus points:

- *Social, environmental, and economic sustainability of communities*
- *Recognising and respecting region's rich history and natural beauty in decision making and actions*
- *Local and global environment including resource use and climate change issues*
- *Understanding value of the region's heritage, history, and environment and considering them in decision making and actions.*

The CSP consists of five themes and strategic objectives:

A. Our community
B. Our economy
C. Our environment
D. Our infrastructure
E. Our civic leadership

The project delivers a form of sustainable and renewable energy generation, which reduces reliance on traditional forms of energy production, such as the burning of fossil fuels. This provides for diversity of power generation options and assists with addressing the impacts of climate change. On balance, the project is consistent with the vision and objectives of the CSP.

2.2 Local Context

The subject site is situated predominantly in the locality of Tirrannaville and partly in the locality of Gundary, approximately 6 kilometres south of Goulburn CBD – refer **Figure 1**.

Goulburn is a major regional centre accommodating a successful industrial and employment area in the south and north-east, a full range of housing options, a base hospital, primary, secondary and tertiary education opportunities and a network of open space along the Wollondilly River that runs east-west through the town. The size and range of offerings available is commensurate with the city's location between Sydney and Canberra.

Goulburn is located on the Hume Highway, which connects Sydney and Melbourne via Canberra, The Hume Highway is situated to the south of the predominate urban core of Goulburn. Goulburn is served by the Main South Line, which connects Sydney to Albury, provide excellent transport links.

The development of the city has focused on areas north of the Hume Highway, with development to the south of the highway limited to the Goulburn Airport and Wakefield Park Raceway together with a number of areas of large lot residential development. The Goulburn Airport is a private airport used for flight training, skydiving and private flights.

Tirrannaville and Gundary are both rural areas used for grazing of modified pastures to the south of the Hume Highway. Road users in this area access the urban area of Goulburn via Braidwood Road and Windellama Road. Braidwood Road crosses the Hume Highway via an underpass and Windellama Road crosses the Hume Highway via a road bridge, approximately 4 kilometres to the north of the northern edge of the subject site.

Traffic from the Goulburn urban area and the Hume Highway are able to able to connect to Braidwood Road via Garroorigang Road, which crosses the Main South Railway Line via an underpass. The Mulwaree River runs south to north in the western portion of Tirrannaville.

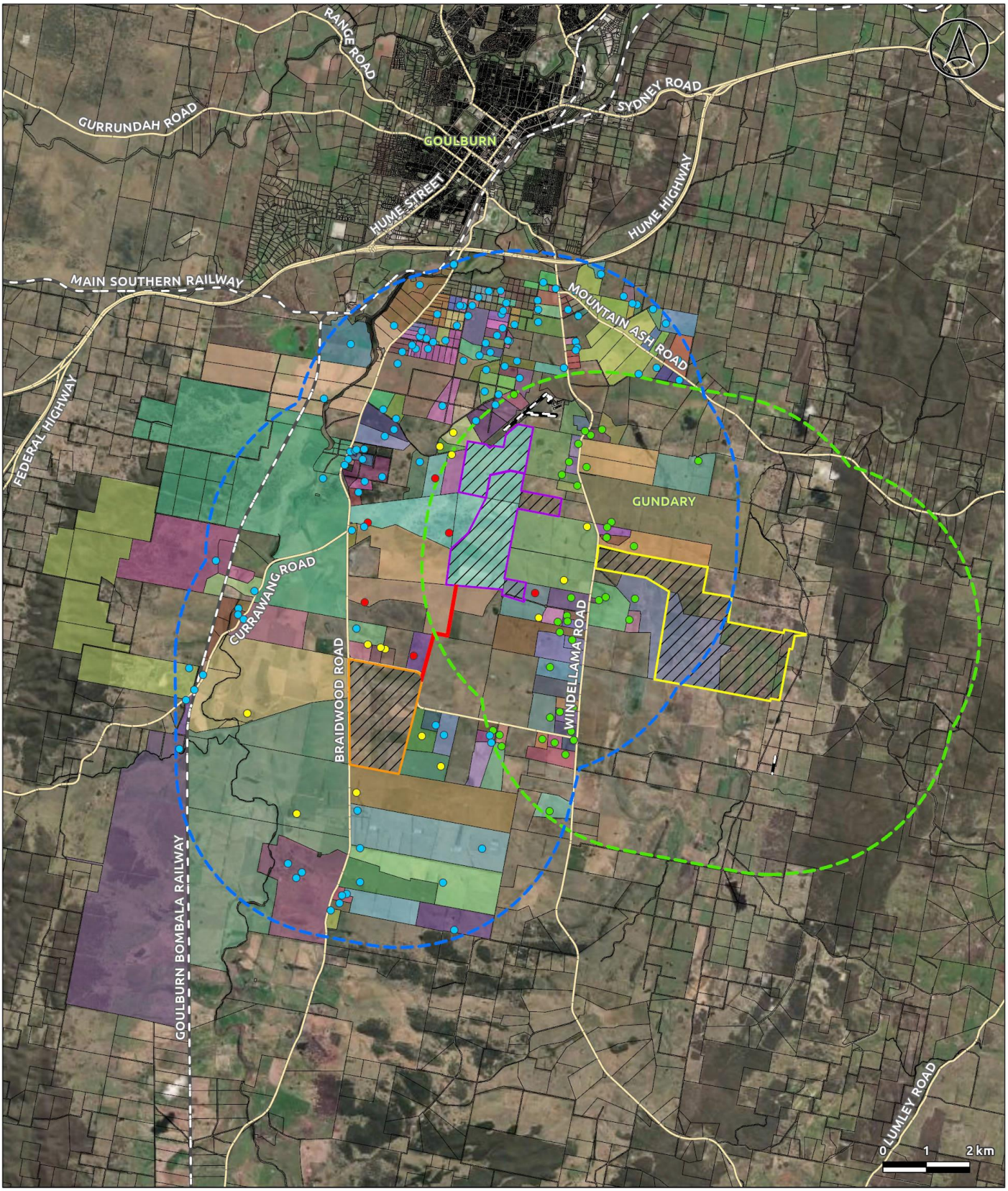
The project site is located within the Sydney Drinking Water Catchment and features a number of mapped waterways. Site analysis, including initial engagement with DPE Water, is occurring to confirm those mapped waterways that exhibit the features of a waterway (defined bank and bed) and those that do not. Detailed design would ensure adequate buffers to confirmed waterways, together with planned provision of vegetation management plans, in accordance with the relevant DPE waterway guidelines.

The project site is located on the eastern side of Braidwood Road, which connects to Braidwood approximately 70 kilometres to the south, via Tarago and the Kings Highway.

Analysis of mapping and ground truthing via the engagement process has confirmed that there are 173 non-associated residential receivers identified within a four kilometre radius of the site. There are also six associated receivers:

1. R1 at Lot 12 DP1011058;
2. R39 at Lot 5 DP1124660;
3. R81 at Lot 1 DP593528;
4. R86 at Lot 12 DP631837; and
5. R87 and R88 at Lot 2 DP1140024.

- The closest non-associated landowners to the project are R31, located approximately 480 metres to the northeast of the northern portion, and R65, located approximately 291 metres to the east of the southern portion. In terms of elevation, R31 is 3.6 metres higher than the site and R65 is 1.1 metres lower than the site.



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Legend

Project Area

- Northern Site
- Southern Site
- Proposed Transmission Line Route
- Proposed Gundary Solar Farm
- Cadastre
- Road
- Railway
- Runway

- Goulburn Merino Solar Farm 4km Buffer
- Gundary Solar Farm 4km Buffer

Sensitive Residential Receivers

- Host landholders
- Adjacent landholders
- Landholders potentially affected by Gundary & Merino
- Other receivers within buffer

Premise

TERRAIN SOLAR PTY LTD

Goulburn Merino Solar Farm

Figure 2 - Local context

2.3 Site Description

The subject site consists of two distinct portions and has an overall area of approximately 760 hectares. The northern portion is located to the south of the Goulburn Airport and is largely bounded by active agricultural lands. The northern site solar footprint area has limited road frontage to the south-west (Gundary Lane). The southern portion is bounded by Braidwood Road to the west and Painters Lane to the north and north-east.

Existing access to both portions of the site is available from Braidwood Road, which runs north-south adjacent to the western boundary of Lot 1 DP877935, and from Painters Lane, east of Braidwood Road. Painters Lane is located beside the northern boundary of Lot 1 DP877935 and connects with the southern boundary of Lot 1 DP593528. Access to the northern site is also achievable from Windellama Road and Gundary Lane, and access to the southern site can be achieved from Painters Lane. The final arrangement for access will be subject to engagement with host landowners, neighbours, Council and Transport for NSW.

A single mining exploration licence applies to the site, being EL9048, held by Aurum Metals Pty Ltd until 15 February 2026 unless renewed prior.

There are no groundwater bores located within the development site. However, 62 registered bores are located within three kilometres of the site with an average drill depth of 39.5 metres.

The northern site has undulating terrain, including a central waterway and several dams, while the southern site is flatter and more low lying. In the north, the landform ranges from a low point 643 metres at the northern end of the site, to high points (~684 metres) in the south-east and west. The southern site ranges in elevation between approximately 644-655 metres, with the exception of a small hill in the northern end, rising to approximately 668 metres.

Both the northern and southern areas of the site are characterised by open grazing pastures and paddocks that have been used for cropping purposes. The surrounding locality is characterised by generally open fields, with stands of vegetations along fence lines, roads, creeks, hill tops and ridges. Scattered residential dwellings in the locality typically feature planted gardens with more mature trees.

The northern and southern sites are visually separated by a low ridge line. Reflective of its ridgeline position, watercourses running into the southern site drain into Saltpetre Creek, which in turn drains towards the Mulwaree River. Watercourses running into the northern site drain into an unnamed creek that drains north towards Gundary Creek.

No recorded sites of Aboriginal heritage significance are located within the site; however, searches reveal six known sites within 10 km of the project area. However, there are several locally significant heritage items in proximity to the site, including:

- I599 "Pelican Homestead and Shearing Shed" at 4840 Braidwood Road – the land being adjacent to the site but the listed buildings being approximately 2 km distant;
- I596 "Tirranna Public School" at 4986 Braidwood Road – located approximately 3 km from the site;
- I595 ""Tirranna" homestead, gardens, Gibson family cemetery and veterans allotments" at 4971–5071 Braidwood Road – located approximately 2 km from the site; and
- I597 "St Andrew's Anglican Church and Cemetery" at 13 Tirranna Lane – located approximately 3km from the site.

The site is predominantly mapped as having a land capability of Class 4 (Moderate to Severe Limitations), with the exception of land along Saltpetre Creek and its tributaries, which is mapped as Class 5 (Severe Limitations). The entirety of the site is mapped via the Landuse Mapping for NSW 2017 spatial dataset as being used for grazing of modified pastures, although site visits and discussions with landowners confirm some cropping of the land. The land is not mapped as Biophysical Strategic Agricultural Land (BSAL) and is not mapped via the draft State Significant Agricultural Land map.

Whilst the entirety of the southern site and portions of the northern site are mapped as Sensitive Biodiversity under the GMLEP 2009, vegetation occurring within the site is mapped as predominantly exotic grassland under State Vegetation Type Mapping (SVTM) with several dispersed, minor patches of Southern Tableland Red Grass-Spear Grassland. Aerial imagery indicates the presence of scattered paddock trees throughout. Land along Saltpetre Creek is also mapped on the Biodiversity Value Map.

The entirety of the site is mapped as Vegetation Category 3 on the Bushfire Prone Land Map, with the exception of a minor portion in the north-eastern corner of Lot X DP38377, which is mapped as Vegetation Category 1.

The site does not contain any significant improvements other than a 330kV transmission line that runs east-west in the northern site, together with several farm dams and sheds.

3. PROJECT DESCRIPTION

3.1 Proposed Development Overview

The proposed MSF and BESS will align with and be contained within the development area shown in **Figure 6 and Figure 7**. The project will provide electrical generation and, via the inclusion of a BESS, grid flexibility services, supporting the transition towards renewable energy.

The MSF will have a capacity of 450 MW_{AC} and the proposed BESS is expected to have a capacity of up to 300 MW_{AC} and a duration of up to four (4) hours. Electricity generated by the MSF will be delivered to the nearby aboveground TransGrid 330 kV powerline and sold into the National Electricity Market (NEM), with Large Generation Certificates (LGC's) also to be sold.

Access to the northern site is expected to be provided via a new access driveway linking to Braidwood Road (via Lot 2 DP1140024) but could potentially utilise existing arrangements from Windellama Road or Gundary Lane. The southern site is expected to be accessed either directly from Braidwood Road or from Painters Lane. Access arrangements would be confirmed with landowners and subject to assessment in the project traffic impact assessment; and discussions with landowners, neighbours and Council.

The layout and final capacity of the MSF, BESS and associated infrastructure will be refined through consideration of findings as a result of further site investigations through the environmental impact assessment process and detailed in the Environmental Impact Statement (EIS). The intent, however, is to maximise the development which, at this stage, includes an area of approximately 760 hectares.

3.1.1 SOLAR FARM

The MSF will use solar Photovoltaic (PV) panels to convert sunlight into electrical current, with energy delivered to the nearby aboveground TransGrid 330 kV powerline. The footprint currently under investigation to accommodate the solar farm is depicted in **Figure 6** and **Figure 7**. Buffers to sensitive land elements would be provided in accordance with the recommendations of specialist reporting and relevant guidelines. Offsets to boundaries, including appropriate Asset Protection Zones, together with screening, if deemed necessary, would be incorporated into the final design for inclusion in the project EIS.

Solar PV technology will be crystalline silicon. The solar PV modules will be connected together via a direct current (DC) collection system consisting of cables mounted on the module support structure. The support structure will be east-west tracking. A tracking system tracks the daily movement of the sun, and a motorised system rotates the panels constantly to maximise energy output performance.

Inverters and transformers will be located throughout the site within the footprint to convert the DC current to alternating current (AC). Inverter and transformer assemblies will be mounted on a steel platform, concrete slab or piles at or close to ground level. The AC collection system will consist of underground cabling at 33

kV to connect to each inverter assembly and deliver the electricity to the site substation. The site substation will consist of a transformer to increase voltage to 330 kV. The site sub-station will be enclosed securely and would be located within the boundary of the proposed MSF within Lot X DP38377.

A control room with associated parking area will be located on the site. This will be a relatively small structure which will provide amenities for a limited number of site staff as well as facilities to enable monitoring of the performance of the solar farm and communications connections to the electricity market operator.

Solar modules are to have an indicative maximum height of approximately five metres. A plan showing typical solar modules and the indicative solar array is to be provided as part of the EIS.

A connecting ETL will be developed between the southern and northern portions of the site – refer **Section 3.1.3** via an easement that is the subject of an agreement with affected landowners.

3.1.2 BATTERY ENERGY STORAGE SYSTEM (BESS) FACILITY

Battery storage providing a capacity of up to 300 MW, 4 hour duration would form part of the application. Storage would provide the capacity to deliver electricity to the transmission network on demand and more closely follow demand fluctuations. This will improve the efficiency of electrical usage, benefiting consumers with a more consistent and reliable energy supply by ensuring that electricity produced can be stored during low demand and supplied during high demand.

It is anticipated that site battery banks will be containerised. The structures will provide shelter and security and will incorporate services to control temperature and conditions. Concrete footings or piles are likely to be laid to support the structures. The storage facility would be located to the near the site substation and will be connected via underground or overhead cables.

3.1.3 INTERNAL CONNECTION

An approximately 2.5 kilometre transmission line will connect the northern and southern sites, generally following the alignment depicted in **Figure 5**. A decision on whether the ETL would be underground or aboveground would be made as design progresses and based on the outcome of detailed analysis, including the project visual assessment.

3.1.4 SUBDIVISION

The project is expected to include subdivision for the purposes of creating a lot to accommodate the sub-station/switching station to enable this to be dedicated to Transgrid. The substation lot would be in the northern area of the site and would have an area of approximately 2-4 hectares, subject to final design.

3.2 Project Phases

3.2.1 CONSTRUCTION

The construction period is estimated to be between 12-18 months. A security fence will be installed on the project area boundary and construction tracks will be laid down. Construction will require the use of bulldozers, water trucks, graders, flatbed trucks, skid steers, front end loaders, roller compactors, trenchers, backhoes, gravel trucks, water tankers, cranes, and aerial lifts.

PV panels and batteries required for the development would be manufactured offsite and delivered for installation following completion of site preparation. Deliveries of modules and other equipment will be made via flatbed trucks on the approved route and via the approved site entrances.

Given the generally flat nature of the site and lack of significant vegetation, minimal preparation is required in advance of installing the PV panel system and BESS. It is anticipated that construction materials would be

delivered to the site from Port Botany or Port of Melbourne, with vehicles accessing the site via the routes shown in **Figure 3**.

The primary components associated with the installation of the SF and BESS are as follows:

- Off-site manufacture of the SF and BESS equipment.
- Vegetation clearing to provide a constructable site.
- Installation of fencing and gates to secure the site, substation and BESS area.
- Levelling the development site and installation of supports for solar panel tracking system.
- If required, installation of temporary site access arrangements.
- Construction of a bench or benches on which to install the BESS and substation unit.
- Installation of solar panels, site substation and the BESS.
- Connection of the SF and BESS to the site substation.
- Constructing an earthing system for the SF and BESS within the subject property.
- Ancillary high voltage equipment, such as circuit breakers, switching equipment, filters, transformers and other electrical protection equipment.
- Auxiliary power, protection, indication and control systems.
- Outdoor sensor lighting to provide illumination, when needed, at night.
- Storage enclosures for storing equipment.
- Communication room for housing communication equipment.
- HVAC equipment for providing cooling and ventilation.
- Commissioning.

The project is expected to generate up to 200-300 Full time Equivalent (FTE) jobs during construction. A local procurement strategy will be developed to address engagement through the construction phase.

3.2.2 OPERATION

It is anticipated that the MSF and BESS would be operational for a period of approximately 35 years, operating 24 hours a day, seven days a week. The area of the SF and BESS would be leased for the duration of the development from the associated landowners.

A project sub-station and sub-transmission line would be expected to be gifted to Transgrid prior to commencement of operations.

- Once operational the solar farm will be monitored and controlled remotely and will only require site-based maintenance to rectify faults and for routine maintenance, generally involving:
- Monitoring, testing and maintenance of onsite equipment.
- Receipt of goods,
- Removal of waste and;
- Other general site maintenance (e.g., care of groundcover).
- The above activities are expected to generate up to four FTE jobs during operation and around another 50 casual staff associated with maintenance, vegetation management and equipment inspection.

The site would continue to be utilised for agricultural purposes, likely to include the grazing of sheep. This assists with controlling ground cover and also ensures the site remains in a diverse use pattern.

3.2.3 DECOMMISSIONING

It is anticipated that the SF and BESS would be operational for a period of approximately 35 years after which time the existing SF and BESS would be removed and the site would be decommissioned. Upon decommissioning, the following indicative steps would occur:

- The above ground equipment including solar panels, tracking system and foundational piles would be removed. BESS and site substation infrastructure would be unbolted from concrete slabs and removed by crane onto transporters. All site infrastructure would be taken away from site to an appropriate recycling or waste facility;
- Underground services would be cut back to below ground level and capped, with the agreement of landowners; and
- The site would then be landscaped to a safe, clean and stable state enabling it to return to an unhindered use for agricultural or other permissible purpose.

It is possible that the infrastructure may be upgraded rather than decommissioned and the lifespan extended, subject to necessary approvals and agreements with landowners.

Figure 7 - Proposed material transport routes

3.3 Cumulative Impacts

Cumulative impacts, as defined by the *Cumulative impact assessment guideline* (DPIE, 2022) (the 'CIA guideline'), are a result of incremental, sustained and combined effects of human action and natural variations over time and can be both positive and negative.

The development of any project has the potential to lead to an accumulation of impacts, either associated with the nature of construction or operation activities occurring on site, or in conjunction with other projects being developed in the locality or region.

An initial review of renewable SSD projects within 50km, registered via the Major Projects Portal (NSW DPE, 2022), has been conducted to determine the scope for potential for cumulative impacts. This review has identified several projects at various stages (i.e., in Planning, Approved and Operational). Relevant details of surrounding renewable SSD projects are provided in **Table 2** and depicted in **Figure 4**.

Cumulative impact assessment levels for each assessment matter, as defined by the CIA guideline, are reproduced in **Table 3** below.

Relevant cumulative impact assessment matters have been categorised for each nearby SSD renewable energy project and assigned a level of assessment in **Table 4** which has been prepared with reference to Appendix B of the CIA guideline.

Table 2 – List of Nearby Renewable SSD Projects

Renewable Energy Projects	Application Number	Status	Approximate separation distance and location
Woodlawn Wind Farm	DA250-10-2004	Operational	25km south west
Gunning Wind Farm	N/A		28km west
Collector Wind Farm	MP10_0156		28km west
Cullerin Range Wind Farm	MP05_0167		31km west
Gullen Solar Farm	DA 7/2016		31km north west
Gullen Range Wind Farm	MP07_0118		31km north west
Capital Wind Farm	MP05_0179		37km south west
Crookwell 2 Wind Farm	DA176-9-2004		37km north west
Biala Wind Farm	SSD-6039		43km north west
Crookwell Wind Farm	N/A		43km north west
Taralga Wind Farm	N/A		43km north west
Crookwell 3 Wind Farm	SSD-6695	Approved	31km north
Capital 2 Wind Farm	MP10_0135		37km south
Gundary Solar Farm	SSD-48225958	In Planning	6km west
Parkesbourne Solar Farm	N/A		15km west
Marulan Solar Farm	SSD-13137914		25km north east
Blind Creek Solar Farm (Previously Capital Solar Farm)	MP10_0121		37km south west

Renewable Energy Projects	Application Number	Status	Approximate separation distance and location
Western Range Solar Farm	SSD-38549992		43km west

Table 3 – Cumulative Impact Assessment Level Definitions

Assessment Level	Description (Refer to Appendix B of the CIA Guideline (DPIE 2022))
Detailed assessment (D)	The project may result in significant impacts on the matter, including cumulative impacts. Detailed assessment is characterised by: • Potential overlap in impacts between a future project (e.g. Project A) and the proposed project • Potential for significant cumulative impacts as a result of the overlap, requiring detailed technical studies to assess the impacts • Sufficient data is available on the future project to allow a detailed assessment of cumulative impacts with the proposed project for the relevant matter • Uncertainties exist with respect to data, mitigation, assessment methods and criteria
Standard assessment (S)	The project is unlikely to result in significant impacts on the matter, including cumulative impacts. Standard assessments are characterised by: • Impacts are well understood • Impacts are relatively easy to predict using standard methods • Impacts are capable of being mitigated to comply with relevant standards or performance measures • the assessment is unlikely to involve any significant uncertainties or require any detailed cumulative impact assessment.
Not applicable (N/A)	No potential overlap in impacts between a future project (e.g. Project A) and the proposed project that would warrant any consideration in the cumulative impact assessment

The project has the potential to interact with surrounding projects and generate cumulative impacts during its construction and operation. As detailed in **Table 4**, the potential for cumulative impacts is predominantly limited to the following four (4) projects, located within a 25km radius of the proposed development site:

- Gundary Solar Farm, In Planning, 6km west
- Parkesbourne Solar Farm, In Planning, 15km west.
- Marulan Solar Farm, In Planning, 25km north east.
- Woodlawn Wind Farm, Operational, 25km south west.

The Gundary Solar Farm is considered to have the greatest potential to result in cumulative impacts, with its proximity to the site increasing the potential for overlap in relation to construction activities and project operation. Other renewable projects are either substantially distanced from the site or already operational and as such that there is a lower potential for cumulative impacts. Operational projects generally have a lower potential to result in substantial cumulative impacts associated with construction activities (i.e noise and vibration, air quality and biodiversity impacts associated with site preparation activities). The cumulative impact posed by surrounding operational projects are considered to be predominantly linked to notions of a changing character and cumulative social impacts related to large scale solar development.

The EIS will contain a dedicated consideration of the potential for cumulative impacts, prepared in accordance with the CIA Guideline (DPIE, 2022), with a particular focus on impact assessment areas where cumulative impacts are likely. Additional details of nearby major projects with the potential to interact with the proposed development will be evaluated as necessary during the preparation of the EIS phase through consultation with stakeholders and reviews of relevant local environmental plans, the Department of Planning, Industry and Environment's Major Projects database, and local council development application registers. Management and mitigation measures would be provided as appropriate for each assessment matter with the potential to result in cumulative impact.

To assist the consideration of cumulative impacts and appropriate mitigation measures in the EIS, **Table 5** summarises cumulative impacts associated with construction and operational phases.

Further consideration of the potential for cumulative impacts is provided throughout **Section 6** and through the scoping summary table provided in **Appendix A.**

.

Table 4 – Cumulative Impact Assessment Scoping Summary Table

Project	Status	Proximity	Indicative timing / potential overlap	Relevant cumulative impact assessment matters:						
				Social Impact	Hydrogeology	Biodiversity	Access and Traffic	Visual Impact	Noise and Vibration	Air Quality
Gundary Solar Farm	In Planning	6km west	Potential overlap of construction activities. Operational overlap for lifetime of projects.	D	S	S	S	S	S	S
Parkesbourne Solar Farm	In Planning	15km west	Potential overlap of construction activities. Operational overlap for lifetime of projects.	S	N/A	S	S	S	S	S
Marulan Solar Farm	In Planning	25km north east	Potential overlap of construction activities. Operational overlap for lifetime of projects.	S	N/A	S	S	S	N/A	N/A
Woodlawn Wind Farm	Operational	25km south west	Operational overlap for lifetime of projects.	S	N/A	N/A	S	S	N/A	N/A
Gunning Wind Farm	Operational	28km west	Substantially distanced from the site such that cumulative impact potential is limited.	S	N/A	N/A	N/A	S	N/A	N/A
Collector Wind Farm	Operational	28km west	Substantially distanced from the site such that cumulative impact potential is limited.	S	N/A	N/A	N/A	S	N/A	N/A
Crookwell 3 Wind Farm	Approved	31km north	Substantially distanced from the site such that cumulative impact potential is limited.	S	N/A	N/A	N/A	N/A	N/A	N/A
Gullen Solar Farm	Operational	31km north west	Substantially distanced from the site such that cumulative impact potential is limited.	S	N/A	N/A	N/A	N/A	N/A	N/A

Project	Status	Proximity	Indicative timing / potential overlap	Relevant cumulative impact assessment matters:						
				Social Impact	Hydrogeology	Biodiversity	Access and Traffic	Visual Impact	Noise and Vibration	Air Quality
Gullen Range Wind Farm	Operational	31km north west	Substantially distanced from the site such that cumulative impact potential is limited.	S	N/A	N/A	N/A	N/A	N/A	N/A
Cullerin Range Wind Farm	Operational	31km west	Substantially distanced from the site such that cumulative impact potential is limited.	S	N/A	N/A	N/A	N/A	N/A	N/A
Crookwell 2 Wind Farm	Operational	37km north west	Substantially distanced from the site such that cumulative impact potential is limited.	S	N/A	N/A	N/A	N/A	N/A	N/A
Capital 2 Wind Farm	Approved	37km south	Substantially distanced from the site such that cumulative impact potential is limited.	S	N/A	N/A	N/A	N/A	N/A	N/A
Capital Wind Farm	Operational	37km south west	Substantially distanced from the site such that cumulative impact potential is limited.	S	N/A	N/A	N/A	N/A	N/A	N/A
Blind Creek Solar Farm (Previously Capital Solar Farm)	In Planning	37km south west	Substantially distanced from the site such that cumulative impact potential is limited.	S	N/A	N/A	N/A	N/A	N/A	N/A
Biala Wind Farm	Operational	43km north west	Substantially distanced from the site such that cumulative impact potential is limited.	S	N/A	N/A	N/A	N/A	N/A	N/A
Crookwell Wind Farm	Operational	43km north west	Substantially distanced from the site such that cumulative impact potential is limited.	S	N/A	N/A	N/A	N/A	N/A	N/A

Project	Status	Proximity	Indicative timing / potential overlap	Relevant cumulative impact assessment matters:						
				Social Impact	Hydrogeology	Biodiversity	Access and Traffic	Visual Impact	Noise and Vibration	Air Quality
Taralga Wind Farm	Operational	43km north west	Substantially distanced from the site such that cumulative impact potential is limited.	S	N/A	N/A	N/A	N/A	N/A	N/A
Western Range Solar Farm	In Planning	43km west	Substantially distanced from the site such that cumulative impact potential is limited.	S	N/A	N/A	N/A	N/A	N/A	N/A

Table 5 – Potential Cumulative Impacts by Project Stage

Stage	Impact Description	Scale of Impact	Duration	Potential mitigation measures
Construction				
Social Impact	Social impacts of multiple large scale projects impacting amenity of rural area.	High	Short Term	Continue to engage and keep the community informed through the construction phase.
Hydrogeology	Sedimentation and erosion of local watercourses within proximity of projects.	Moderate	Short Term	Minimise disturbance to surrounding watercourses where possible. Implement appropriate stormwater controls during the construction phase.
Biodiversity	Concurrent site clearing resulting in removal of vegetation and impacts to flora and fauna.	High	Short Term	Minimise vegetation clearing where possible. Prepare a project BDAR to consider the potential for impacts, including avoidance and offsetting.
Access and Traffic	Generation of congestion along local access roads and concurrent heavy vehicle movements.	Moderate	Short Term	Minimise the potential for compounding traffic impacts through coordination with the construction activities of nearby developments and avoiding concurrent construction activities where possible. Review transport routes in consultation with nearby projects to avoid the concentration of impact on local road networks where possible.
Visual Impact	Changes to the regional landscape character and visual amenity from large scale energy projects.	Moderate	Short Term	Minimise the potential for visual impacts through strategic placement of site infrastructure and use of screening, as required.
Noise and Vibration	Noise and vibration emissions from concurrent construction activities.	Moderate	Short Term	Minimise the potential for compounding noise and vibration impacts through coordination with the construction activities of nearby developments and avoiding concurrent construction activities where possible.
Air Quality	Vehicle and dust emissions from concurrent construction activities.	Moderate	Short Term	Minimise the potential for compounding air quality impacts through coordination with the construction activities of nearby developments and avoiding concurrent construction activities where possible.

Stage	Impact Description	Scale of Impact	Duration	Potential mitigation measures
Operation				
Social Impact	Social impacts of multiple large scale projects impacting amenity of rural area.	High	Long Term	Continue to engage and keep the community informed through the operation phase.
Hydrogeology	No major cumulative impacts related to hydrogeology are anticipated to occur during the operational phase.	Minor	Long Term	Maintain appropriate stormwater controls during the operation phase.
Biodiversity	No additional clearing is expected during the operational phase. Impacts to existing biodiversity are therefore limited.	Minor	Long Term	Maintain biodiversity located within the project site.
Access and Traffic	No major cumulative impacts related to access and traffic are anticipated to occur during the operational phase. Vehicle movements are anticipated to be limited to light maintenance vehicles.	Minor	Long Term	Maintain appropriate access and traffic controls during the operation phase.
Visual Impact	Changes to the regional landscape character and visual amenity from large scale energy projects.	High	Long Term	Maintain appropriate visual impact controls during the operation phase.
Noise and Vibration	No major cumulative impacts related to noise and vibration are anticipated to occur during the operational phase.	N/A	N/A	N/A
Air Quality	No major cumulative impacts related to air quality are anticipated to occur during the operational phase.	N/A	N/A	N/A

Legend

Project Area
- Northern Site
- Southern Site
- Proposed Transmission Line Route
- Project Area 10km Buffer
- Project Area 25km Buffer
- Project Area 50km Buffer
- Proposed Gundary Solar Farm
- LGA Boundary

- Major Road
- Railway
- Major Water Body
- Major Watercourse

Renewable Energy Projects
- In planning
- Approved
- Under construction
- Operational

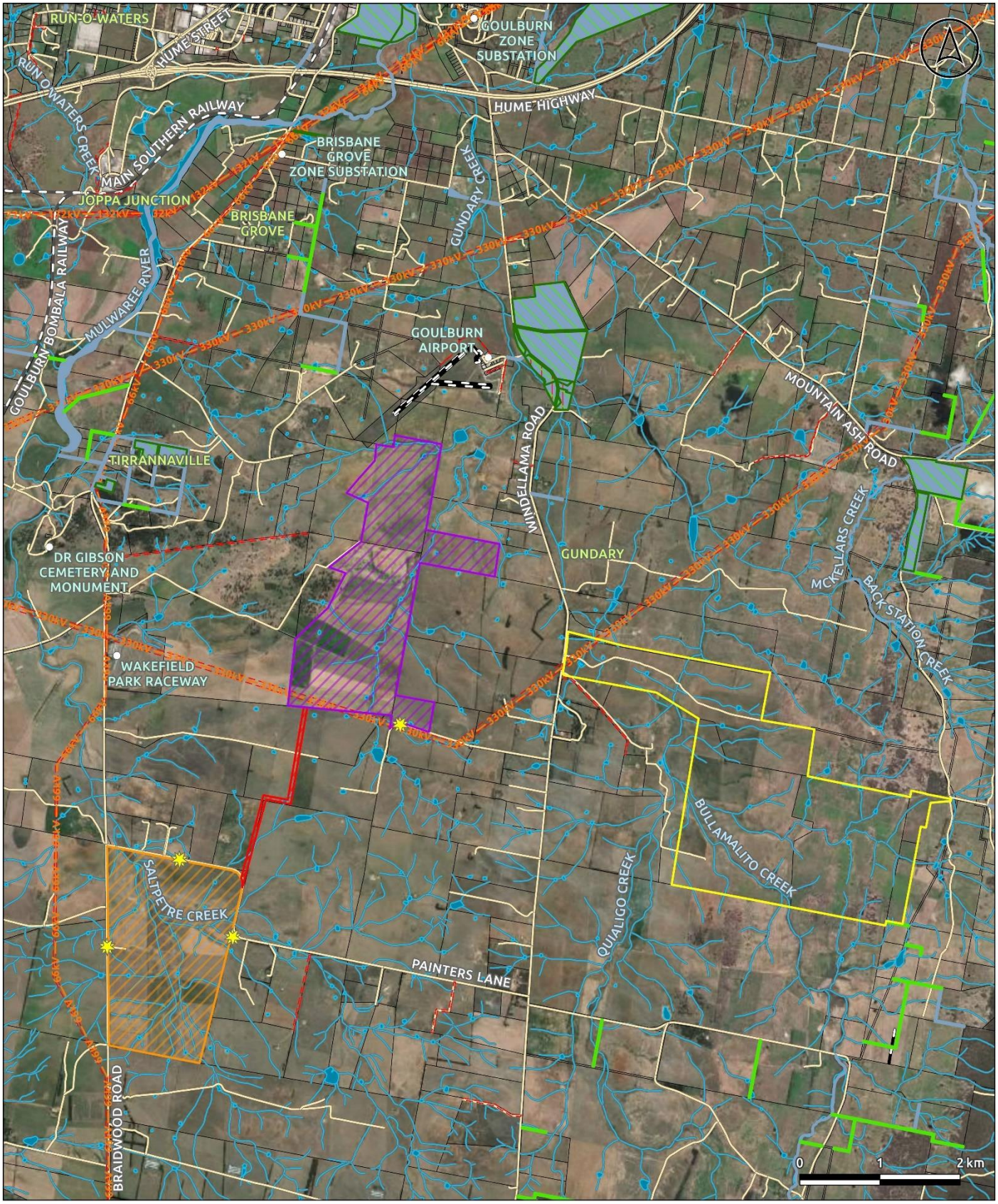
- NPWS Reserve
- State Forest

Premise

MERINO SOLAR FARM PTY LTD

Goulburn Merino Solar Farm

Figure 3 -Renewable Energy Zone Context



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GDA2020 MGA Zone 55 File: 221299_03.aprx Prepared By: adam.davis Date: 10/02/2023

Legend

Project Area
- Northern Site
- Southern Site
- Proposed Transmission Line Route
- Proposed Gundary Solar Farm
- Site Access
- Cadastre
- Road
- Railway
- Runway
- Water Body
- Watercourse
- NPWS Reserve
- Crown Land
- Crown Enclosure Permit
- Crown Licences
- Crown Reserves
- Easement

Electricity Transmission Line
- 66kV
- 132kV
- 330kV

Premise

MERINO SOLAR FARM PTY LTD

Goulburn Merino Solar Farm

Figure 4 - Site analysis

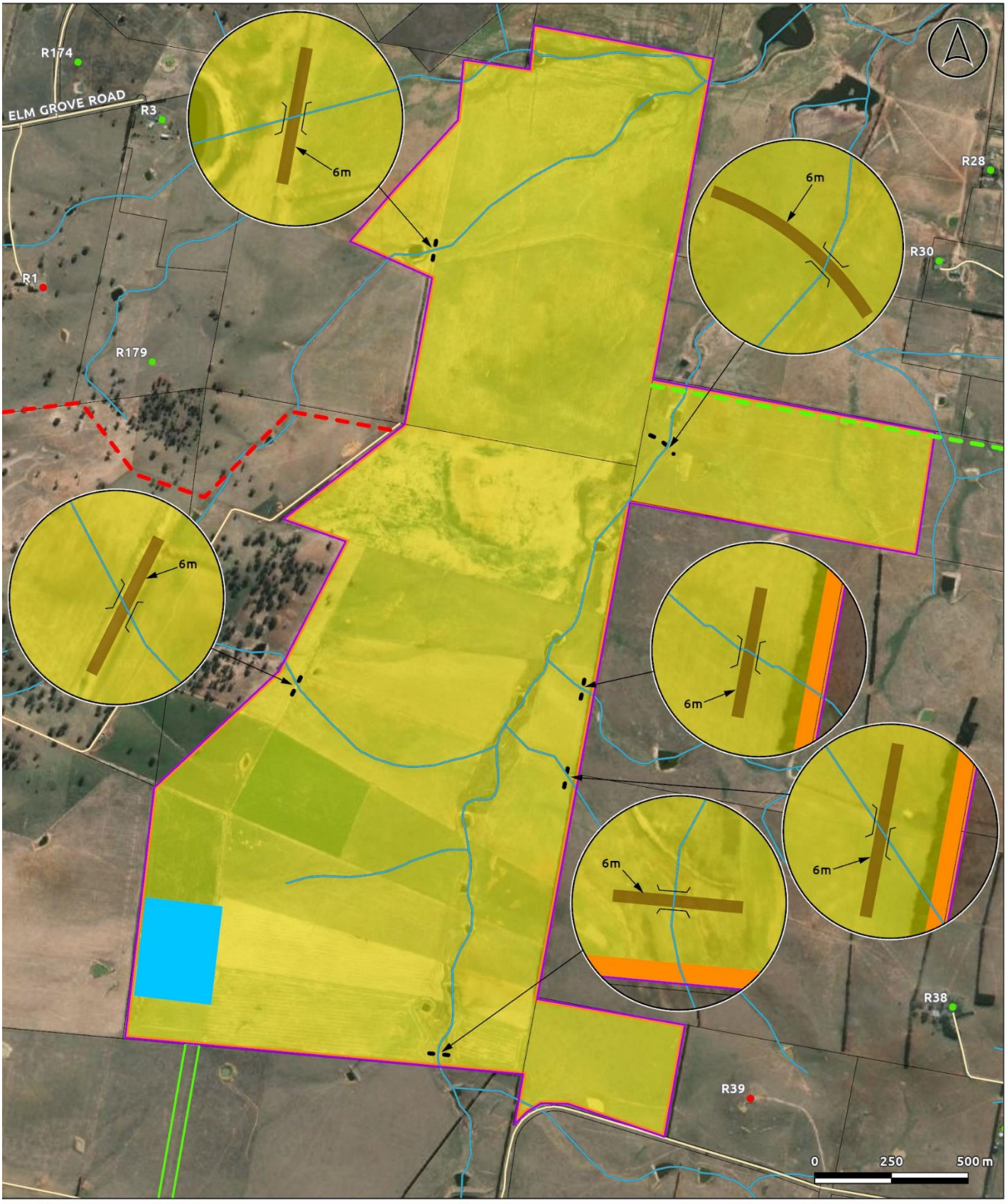


Figure 5 - Concept project layout north

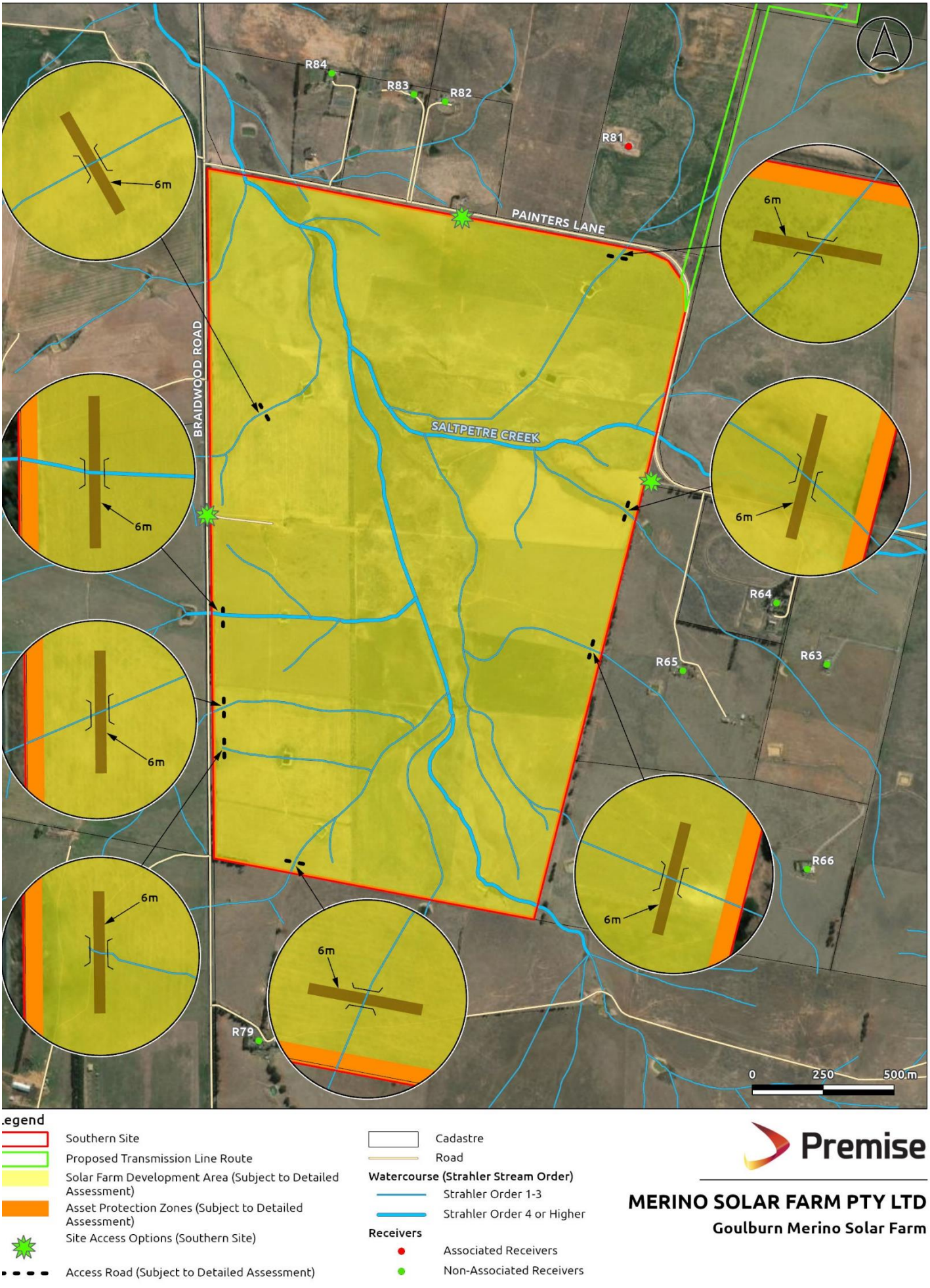


Figure 6 - Concept project layout south

4. STATUTORY CONTEXT

The key statutory requirements for the project are set out in **Table 6**.

Table 6 – Statutory requirements for a project

Matter:	Comment:
Power to grant consent	Section 4.5 of the EP&A Act provides that the consent authority is the Independent Planning Commission (if the development is of a kind for which the Commission is declared the consent authority by an environmental planning instrument) or the Minister (if the development is not of that kind). Section 4.36(2) of the EP&A Act provides that a State Environmental Planning Policy may declare any development, or any class or description of development, to be State significant development. clause 2.6(1) of the Systems SEPP provides that development is declared to be State significant for the purposes of the EP&A Act if: • the development on the land concerned is, by the operation of an environmental planning instrument, not permissible without development consent under Part 4 of the EP&A Act; and • The development is specified in Schedule 1 or 2 of the SEPP. The consent authority for the proposed development is likely to be the Minister: • On the grounds that the proposed development satisfies: – Section 2.6(1)(a) of the Systems SEPP on the grounds that it is permitted with consent under Section 2.361)(b) of the Infrastructure SEPP; and – Section 2.6(1)(b) of the Systems SEPP on the grounds that it is for the purposes of electricity generating works that has a capital investment value of more than $30 million in accordance with Section 20 of Schedule 1 of the SEPP. • Unless it is the Independent Planning Commission if, in accordance with clause 2.7(1) of the Systems SEPP: – The council of the area in which the development is to be carried out (RVC) has duly made a submission by way of objection under the mandatory requirements for community participation in Schedule 1 of the EP&A Act; – At least 50 unique submissions (other than from a council) have duly been made by way of objection under the mandatory requirements for community participation in Schedule 1 to the Act; and – The development application is made by a person who has disclosed a reportable political donation under section 10.4 to the Act in connection with the development application.
Permissibility	Electricity generating works are prohibited in the RU1 Primary Production zone applying to the site under the relevant local environmental plan, the GMLEP 2009 (refer to **Figure 8**). Notwithstanding the above, the development is permitted with consent on the following grounds: • The proposed development satisfies clause 2.6(1)(a) of the Systems SEPP as electricity generating works are permitted with consent within prescribed rural zones under clause 2.36(1)(b) of *State Environmental Planning Policy (Transport*

Matter:	Comment:
	and Infrastructure) 2021 (the Infrastructure SEPP). Under clause 2.35 of the Infrastructure SEPP, prescribed rural zones include the RU1 Primary Production zone which applies to the site under the GMLEP 2009. A proposed power line connection to the grid is permissible as an ancillary component of an electricity generating works. • The proposed development satisfies clause 2.6(1)(b) of the Systems SEPP on the grounds that it is for the purposes of electricity generating works which have a capital investment value (CIV) of more than $30 million in accordance with clause 20, Schedule 1 of the Systems SEPP.
Other approvals Pre-conditions to exercising the power to grant consent	Commonwealth approvals may be required for the following reasons: • A search for potential matters of national environmental significance (MNES) that may trigger the need for referral to the Australian Department of Climate Change, Energy, the Environment and Water (DCCEEW) via the online Protected Matters Search Tool (PMST) - (refer **Appendix C):** – Did not identify any World Heritage Properties National Heritage Places or Wetlands protected by the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act); and – Identified five plants, one reptile, two amphibians, six birds, one insect and two mammals as having potentially suitable habitat on the subject site. – Identified two listed threatened ecological communities, with the potential to occur in proximity to the site. • A review of National Native Title Tribunal's Native Title Register did not identify any Native Title claims or applications, or Indigenous Land Use Agreements applying to the site under the Commonwealth *Native Title Act 1993* (the Native Title Act).
Mandatory matters for consideration	Pursuant to Section 4.15 of the EP&A Act, the following mandatory matters for consideration apply: • Relevant environmental planning instruments, including: – *State Environmental Planning Policy (Resilience and Hazards) 2021* (the Hazards SEPP): • Chapter 3 Hazardous and offensive development; and • Chapter 4 Remediation of land. – *State Environmental Planning Policy (Transport and Infrastructure) 2021* (the Infrastructure SEPP): • Chapter 2 Infrastructure. – *State Environmental Planning Policy (Planning Systems) 2021* (the Systems SEPP): • Chapter 2 State and regional development. – *State Environmental Planning Policy (Biodiversity and Conservation) 2021* (the Biodiversity SEPP): • Chapter 3 Koala habitat protection 2020 – GMLEP 2009. • The relevant development control plan, being the *Goulburn Mulwaree Development Control Plan 2009* (noting that the application of development control plans is excluded from SSD under clause 2.10 of the Systems SEPP);

Matter:	Comment:
	• The likely impacts of the development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality; • The suitability of the site for the development; and • The public interest.

4.1 State Environmental Planning Policies

4.1.1 STATE ENVIRONMENTAL PLANNING POLICY (RESILIENCE AND HAZARDS) 2021

The Hazards SEPP commenced on 1 March 2022, repealing and replacing:

- State Environmental Planning Policy (Coastal Management) 2018;
- State Environmental Planning Policy No 33 – Hazardous and Offensive Development; and
- State Environmental Planning Policy No 55 – Remediation of Land.

4.1.1.1.1 Chapter 3 Hazardous and offensive development

Clause 3.7 of the Hazards SEPP requires the consideration of current circulars or guidelines prepared by the Department of Planning in determining whether a development is:

- hazardous storage establishment, hazardous industry or other potentially hazardous industry; or
- offensive storage establishment, offensive industry or other potentially offensive industry.

The current and most recent guidelines prepared by the Department of Planning, the *Hazardous and Offensive Development Application Guidelines – Applying SEPP 33* (Applying SEPP 33 Guideline; Department of Planning 2011), includes the screening tests to be used to determine whether a development is potentially hazardous development. If the screening tests indicate that a development is potentially hazardous development, a preliminary hazard analysis (PHA) is required to be provided as part of the DA. The type of screening test to be used is dependent upon the class, as categorised under the Australian Dangerous Goods Code (ADG; National Transport Commission 2020) of dangerous goods proposed to be accommodated on-site.

The project includes delivery of a BESS. The dangerous good associated with BESS are lithium batteries which are a class 9 dangerous good under the ADG Code. Class 9 goods do not exceed the screening thresholds under the guidelines under the Applying SEPP 33 Guideline as they *"pose little threat to people or property"* (Department of Planning 2011, p. 33).

Notwithstanding, a Preliminary Hazard Analysis (PHA) would be prepared to support the project EIS to consider risks associated with the batteries.

4.1.1.1.2 Chapter 4 Remediation of land

Clause 4.6(1) of the Hazards SEPP states that a consent authority must not consent to the carrying out of development unless it has considered whether the land is contaminated. If the land is contaminated, the consent authority must not consent to the carrying out of development unless it is suitable for the proposed use in its contaminated state or will be suitably remediated before the land is used for that purpose.

A search of the NSW EPA Contaminated land record was completed for contaminated land within the Goulburn Mulwaree LGA. Four (4) sites are noted within the LGA however none of these are located closed to the project site.

The list of EPA notified sites dated 8 March 2023 was reviewed and 13 contaminated sites were identified in the Goulburn LGA. The majority of these relate to current or former service stations and none are located on or near the subject site.

Notwithstanding the above, the history of the use of the site has been for agricultural purposes and therefore there is the potential for contamination on site.

Based on the above, the project EIS will contain an assessment of the likelihood of contamination, and if identified, the need for remediation.

4.1.2 STATE ENVIRONMENTAL PLANNING POLICY (TRANSPORT AND INFRASTRUCTURE) 2021

The *State Environmental Planning Policy (Transport and Infrastructure) 2021* (Infrastructure SEPP) commenced on 1 March 2022, repealing and replacing:

- State Environmental Planning Policy (Infrastructure) 2007;
- State Environmental Planning Policy (Educational Establishments and Childcare Facilities) 2017;
- State Environmental Planning Policy (Major Infrastructure Corridors) 2020; and
- State Environmental Planning Policy (Three Ports) 2013.

Development for the purposes of electricity generating works is prohibited in the RU1 zone applying to the site under the LEP. However, clause 2.36(1)(b) of the Infrastructure SEPP permits electricity generating works in prescribed rural zones, including the RU1 zone.

The development is therefore permitted with consent via the Infrastructure SEPP.

Other relevant provisions of the Infrastructure SEPP are discussed in **Table 7**.

Table 7 – Infrastructure SEPP

Relevant Infrastructure SEPP provisions		**Assessment**
Section 2.36	Determination of development applications for solar or wind electricity generating works on certain land.	The project is an electricity generating works project relating to solar or wind. Section 2.36(1) permits the carrying out of electricity generating works on prescribed rural land, including the RU1 zone.
Section 2.42	Applies to state or regionally significantly development for solar or wind electricity generating works on certain land.	The northern area of the project is located near to a mapped regional city. On the above basis, further consideration of clause 2.42 is provided in **Section 4.1.2.1**.
Section 2.119	Development with frontage to a classified road	The southern area of the subject site has direct frontage to Braidwood Road, which is identified as a classified Road. A project TIA will be prepared to consider the impacts of the project in the context of the operation of the classified road.
Section 2.122	Traffic generating development	The project is not identified as traffic generating development.

The above relevant Infrastructure SEPP provisions will be addressed in the project EIS.

4.1.2.1 Clause 2.42

Clause 2.42 states that development consent must not be granted for a state or regionally significant development for the purposes of electricity generating works, where the project is located in close proximity to a regional city. As per the Regional Cities Map contained within the Infrastructure SEPP, Goulburn is mapped as a regional city, and the northern section of the site is located within the nominated area.

The matters to which the consent authority must be satisfied in relation to clause 2.42 are:

> *(a) is located to avoid significant conflict with existing or approved residential or commercial uses of land surrounding the development, and*
>
> *(b) is unlikely to have a significant adverse impact on the regional city's—*
>
> *(i) capacity for growth, or*
>
> *(ii) scenic quality and landscape character.*

The project EIS will be the subject of detailed analysis with respect to social, visual and land use matters to ensure that sufficient information is provided to enable the consent authority to be satisfied with respect to this clause.

An initial analysis confirms that the project site is not identified within an area identified by an adopted strategy as being suitable for future residential land use.

4.1.3 STATE ENVIRONMENTAL PLANNING POLICY (PLANNING SYSTEMS) 2021

The Planning Systems SEPP:

- *identifies State or regionally significant development, State significant Infrastructure, and critical State significant infrastructure*
- *provides for consideration of development delivery plans by local Aboriginal land councils in planning assessment*
- *allows the Planning Secretary to elect to be the concurrence authority for certain development that requires concurrence under nominated State environmental planning policies.*

Chapter 2 of the Planning Systems SEPP relates to SSD, Chapter 3 relates to Aboriginal Land and Chapter 4 relates to concurrences and consents.

Schedule 1 provides a summary of project and project specific triggers that meet the general requirements of SSD.

Clause 20 of Schedule 1 confirms that electricity generating works and heat or co-generation projects with a capital investment value of more than $30 million (or more than $10 million where located on an environmentally sensitive area of state significance) is an SSD project. As the project CIV exceeds $30 million, the project is SSD.

4.1.4 STATE ENVIRONMENTAL PLANNING POLICY (BIODIVERSITY AND CONSERVATION) 2021

The Biodiversity SEPP commenced on 1 March 2022, repealing and replacing:

- State Environmental Planning Policy (Vegetation in Non-Rural Areas) 2017;

- State Environmental Planning Policy (Koala Habitat Protection) 2020;
- State Environmental Planning Policy (Koala Habitat Protection) 2021;
- Murray River Regional Environmental No 2 – Riverine Land;
- State Environmental Planning Policy (Bushland in Urban Areas) 2019;
- State Environmental Planning Policy 50 – Canal Estate Development;
- State Environmental Planning Policy (Sydney Drinking Water Catchment) 2011;
- Sydney Regional Environmental Plan 20 – Hawkesbury-Nepean River No. 2 1997;
- Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005;
- Greater Metropolitan Regional Environmental Plan No 2 – Georges River Catchment; and
- Willandra Lakes Regional Environmental Plan No 1 – World Heritage Property.

4.1.4.1 Chapter 3 Koala habitat protection 2020

Under clause 3.3(1) of the Biodiversity SEPP, the SEPP applies to land within the RU1 Primary Production, RU2 Rural Landscape and RU3 Forestry and equivalent zones in an LGA not marked with a '*' in Schedule 2 of the SEPP. A three-step process applies where the SEPP applies and the site (including adjoining land in the same ownership) has an area of more than one hectare.

The project area is located within the RU1 zone and therefore, Chapter 3 applies to the proposed development.

A project BDAR will be prepared to consider the potential for impacts to Koala.

4.1.4.2 Chapter 4 Koala habitat protection 2021

Under clause 4.4(1) of the Biodiversity SEPP, the SEPP applies to the LGAs listed in Schedule 2 of the SEPP, unless the site is located within the RU1 Primary Production, RU2 Rural Landscape or RU3 Forestry zone in an LGA that isn't marked with a '*' in Schedule 1.

The subject site is located within the RU1 zone and therefore Chapter 4 does not apply to the subject site.

4.1.5 STATE ENVIRONMENTAL PLANNING POLICY (RESOURCES AND ENERGY) 2021

The *State Environmental Planning Policy (Resources and Energy) 2021* (Resources SEPP) commenced on 1 March 2022, repealing and replacing:

- State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007; and
- Sydney Regional Environmental Plan No. 9 – Extractive Industries (No 2 – 1995).

Clause 2.19(1) of the Mining SEPP seeks to consider whether proposed development is compatible with mining, petroleum production or extractive industry, and applies to development in the following circumstances:

> *(a) in the vicinity of an existing mine, petroleum production facility or extractive industry, or*
>
> *(b) identified on a map (being a map that is approved and signed by the Minister and copies of which are deposited in the head office of the Department and publicly available on the Department's website) as being the location of State or regionally significant resources of minerals, petroleum or extractive materials, or*
>
> *(c) identified by an environmental planning instrument as being the location of significant resources of minerals, petroleum or extractive materials.*

A review of available mapping has confirmed that the site is not located within a mine subsidence district.

The site is in the vicinity of current exploration licence (EL) 9048 (refer **Figure 16**) but is not identified as being within an area identified as hosting state or regionally significant resources.

Premise have sought comment from the holder of the EL but have not received a response at the time of issue of this scoping report. The project team will continue to liaise with the EL holder to ensure that they are fully aware of the project and have had the opportunity to provide feedback around potential impacts.

Relevant consideration of the Mining SEPP will be provided in the project EIS.

4.2 Other Environmental Planning Instruments

4.2.1 GOULBURN MULWAREE LOCAL ENVIRONMENTAL PLAN 2009

4.2.1.1 Zone objectives and land use table

The site is located within the RU1 Primary Production zone pursuant to the LEP. Within the RU1 zone, electricity generating works are prohibited. However, pursuant to Section 2.36 of the Infrastructure SEPP, electricity generating works are permitted with consent in a prescribed rural zone, including the RU1 zone. The Infrastructure SEPP prevails over the LEP to the extent of any inconsistency and thus the developed is permissible with consent.

The objectives of the RU1 zone are focussed on ensuring the protection of the rural zone for agricultural and related purposes. The project is not inconsistent with these objectives on the basis that it provides for the development of a permissible use in the zone, will be supported by appropriately scoped assessments to consider all impacts, and will ensure that residual impacts that cannot be avoided are appropriately mitigated.

4.2.1.2 Subdivision

The proposal includes subdivision of the land to provide create a lot of the project switching station and create a residue lot. Subdivision is permissible within the RU1 and RU2 zones pursuant to clause 2.6 of the LEP, subject to satisfying the applicable minimum lot size (MLS), pursuant to LEP clause 4.2. In this instance, the applicable MLS in the RU1 zone is 100 hectares.

The proposed subdivision lot would be expected to have an area of around 4-6 hectares and would be located within the northern project area. Due to the small size of the lot, this is therefore inconsistent with the MLS. The residue lot would be expected to satisfy the MLS.

The proposal is permissible by the Minister pursuant to Section 4.38(3) of the EP&A Act despite being partly prohibited.

The proposed subdivision is considered to be acceptable by reference to the objectives of the RU1 zone on the basis that:

- The proposed subdivision is associated with the carrying out of a permissible activity in the RU1 zone and does not prejudice the carrying out of primary industry production;
- The proposed lot is small in size and facilitates the carrying out of a renewable project, which is permissible in the zone, and will host permanent electrical infrastructure that will be managed and retained by Transgrid in the discharge of their functions as an electricity authority;
- The lot is well separated from property boundaries and will not lead to conflict with adjacent land uses. The proposed use of the land for housing electricity infrastructure is compatible with the use of the adjacent land for the purposes of primary production and for the purposes of electricity generating works.

- The proposed lot is well separated from sensitive environments and would not lead to unacceptable impacts to watercourses or groundwater.

On this basis, the proposed subdivision is considered to be acceptable.

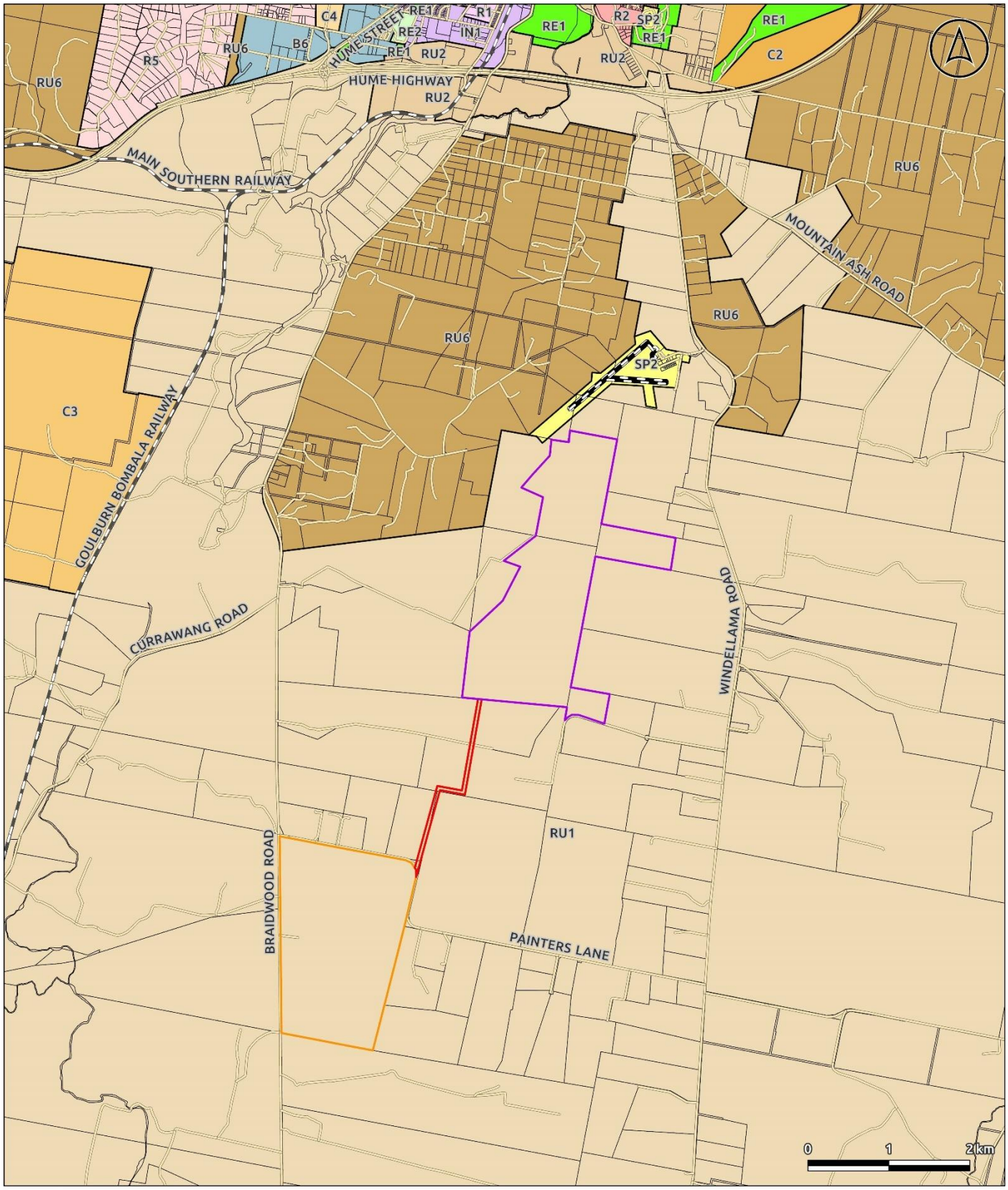


Figure 9 - Land zoning

5. ENGAGEMENT

Engagement to inform the Scoping Report preparation has been undertaken in accordance with the following guidelines:

- Department of Planning and Environment Large-Scale Solar Energy Guideline (DPE 2022);
- State Significant Development Guidelines (DPIE 2022); and
- Undertaking Engagement Guidelines for State Significant Projects (DPIE 2022).

Stakeholder and community engagement will play a role in informing the ongoing design of the project and in scoping the content of the Environmental Impact Statement (EIS). This chapter describes the engagement carried out to date and engagement proposed during the exhibition of the EIS.

5.1 Engagement Objectives

Merino Solar Farm Pty Ltd has been and continues to be interested in community and stakeholder feedback on the project. The project engagement objectives are to:

Identify the people or groups who are interested in or are likely to be affected by the solar farm.

Build awareness and provide channels for those interested or affected to access information and provide feedback.

Engage early and involve the community, council and other stakeholders in the conversation.

Collect qualitative and quantitative data, evidence and insights for scoping the Social Impact Assessment in ways that maximise diversity and representativeness of views.

Consider the views of people in a meaningful way and use these insights to inform project planning and design, mitigation and enhancement measures, and monitoring and management frameworks.

Provide information about what is proposed, and the likely impacts and the legacy left behind.

Listen to the concerns, issues and impacts the project may have on our neighbours and the wider community and understand how likely impacts may be experienced from their perspectives.

5.2 Engagement overview

On 28 November 2022, Merino Solar Farm Pty Ltd announced the Merino Solar Farm project and started engagement with stakeholders and the local community.

5.3 Target stakeholders

Key stakeholders for the project include (but are not limited to):

- Neighbouring landholders;
- the wider community;
- Special interest groups;
- Infrastructure and service providers;
- Goulburn Mulwaree Council;
- State agencies (NSW Department of Planning and Environment and NSW Department of Industry and Regional Development); and
- State and Federal Elected representatives.

5.4 Engagement approach

A range of tools were implemented to engage with this wide audience as outlined in **Table 8**.

Table 8 – Target audience and engagement approach

Target Audience	Phone & email	Website	Door knocks	Newsletter	Meetings	Briefings	Advertisement
Host landholders - Landowners, residents or businesses who own or reside on land designated for the proposal	●	●	●	●	●	●	●
Adjacent Landholders - Landowners, residents or businesses who directly adjoin the project site (share a boundary)[1]	●	●	●	●			●
Landholders potentially affected by Gundary & Merino proposals within 4km of the project site	●	●	●	●	●		●
Local Community - Landowners, residents or businesses within 4km of the project site[2]	●	●		●			●
BP Lightsource - Proposed Gundary Solar Farm	●	●		●		●	●
Wider community	●	●		●			●
Special interest groups[3]	●	●				●	●
Infrastructure and service providers	●	●		●	●		●
Local Government	●	●			●		●

[1] Includes Aurum Metals who hold a mineral exploration licence.
[2] Includes Lachlan Metals who hold a mineral exploration licence.
[3] Includes Aboriginal stakeholders. Targeted engagement will be undertaken by a specialist consultant during the EIS development phase.

Target Audience	Phone & email	Website	Door knocks	Newsletter	Meetings	Briefings	Advertisement
State Government	●	●				●	●
Elected Representatives	●	●				●	●

5.5 Engagement activities to date

Merino Solar Farm Pty Ltd first privately approached potential host landowners in approximately early 2021. Once lease options were in place for the required footprint and easement, the project was publicly announced, and engagement began with the wider community and relevant stakeholders. An overview of this engagement is included below.

5.5.1 PUBLIC INFORMATION

5.5.1.1 Community contact points

The key community contact points outline in **Table 9** were established in November 2022 to enable the community and stakeholders to access project information and speak to a member of the project team.

This contact information was made available on the project website, in local advertising, the project newsletter and 'Sorry we missed you' card.

Table 9 – Community contact points

Activity	Detail	No. of contacts
Community information line	1800 242 282	15
Community email address	info@merinosolarfarm.com.au	73
Website	www.merinosolarfarm.com.au	1,040

Figure 9 – Merino Solar Farm website

5.5.1.2 Advertisements

Advertisements were placed to announce the project to the wider community, encourage feedback and provide a QR link to the Social Impact Assessment survey.

Table 10 – Advertising

Type	Publication	Readership
Print advertisement	Goulburn Post - 30 November 2022	5,700
Print advertisement	Goulburn Post - 7 December 2022	5,700
Digital advertisement	Goulburn Post - 30 Nov-10 Dec 2022	70,000-90,000 (9,812 impressions*)

*11 users clicked the advertisement link and were directed to the project website.

Figure 10 – Advertisement placed in the print edition of the Goulburn Post

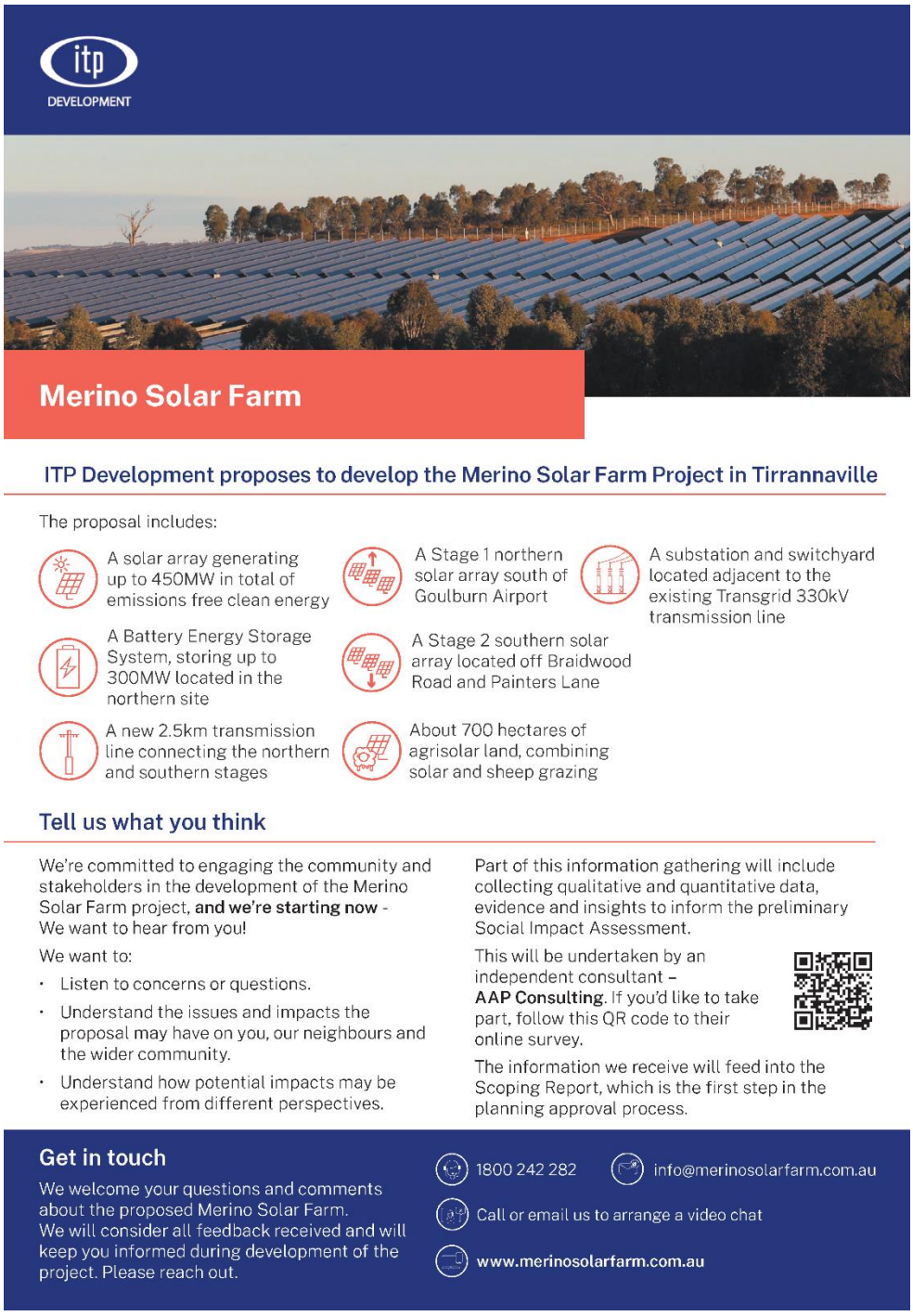


Figure 11 – Digital advertisement placed on the Goulburn Post website

5.5.2 TARGETED ENGAGEMENT

5.5.2.1 Doorknock and Letterbox drop

An intensive campaign commenced 28 November 2022 to visit adjacent landholders and those properties within 4km of the proposed site who have the potential to be impacted by or interested in both the Merino and Gundary solar farm proposals.

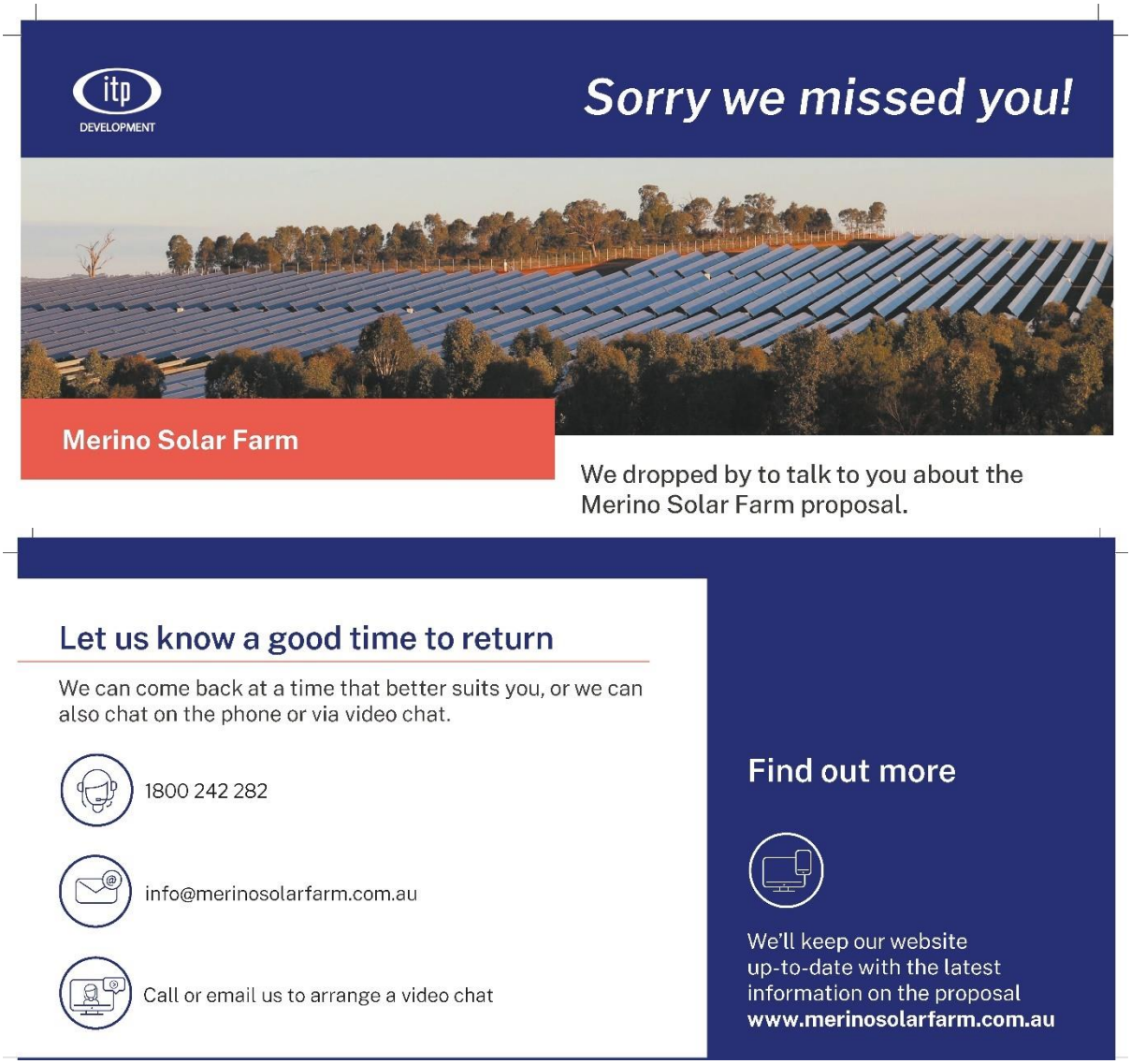
All landholders were provided a copy of the project newsletter (**Appendix G**). Where no one was home or a property could not be entered[4] (that was assigned to be doorknocked), a 'Sorry we missed you' card (**Figure 12**) was left requesting the landholder call to make a more suitable time for a return visit, phone call or video chat.

Table 11 – Doorknock and Letterbox drop - Engagement effort v's uptake

Activity	Number attempted	Number completed	Notes
Doorknocks - Adjacent	12	8	• 4 households were not home.
Doorknocks – Affected by both solar farm proposals	33	7	• 14 households were not home, and information was left at the front door. • 1 property was vacant (no house). • 9 were not attempted[5] and information was left in the letterbox.
Letterbox drops	130	108	• 28 properties did not have a letterbox. • 2 properties did not have a letterbox but had an accessible property and were doorknocked instead.

[4] Due to locked gates, dogs or other safety/biosecurity requirements.
[5] Due to locked gates, dogs or other safety/biosecurity requirements.

Figure 12 – Sorry we missed you' card



5.5.2.2 Meetings & briefings

On 28 November 2022, invitations were issued to key stakeholders offering a briefing about the proposal. The briefings were designed to ensure stakeholders were adequately informed of the proposal, seek feedback and ensure issues and concerns are understood, captured and addressed in the planning process. **Table 12** outlines those offers and where they were accepted and completed. Briefings were provided in person, via video chat or over the phone as required.

Table 12 – Meetings & briefings - Engagement effort v's uptake

Audience	Offered	Accepted	Completed
State and Federal Elected Representatives			
The Hon. James Griffin, NSW Minister for Environment and Heritage	✓		

Audience	Offered	Accepted	Completed
The Hon. Wendy Margaret Tuckerman, Member for Goulburn	✓	✓	2/12/22
The Hon. Angus Taylor, Member for Hume	✓		
The Hon. Chris Bowen, Federal Minister for Climate Change and Energy	✓		
Goulburn Mulwaree Council			
Peter Walker, Mayor – Goulburn Mulwaree Council	✓	✓	2/12/22
Planning officers	✓	✓	2/12/22
Adjoining Landowners			
Aurum Metals	✓		
Wider community			
Tirranna Public School	✓		
Wakefield Park Raceway	✓		
Goulburn Airport	✓	✓	15/3/23
Special Interest Groups			
Aboriginal stakeholders	✗ [6]		9/12/23[7]
Lions Club of Goulburn City Inc	✓		
Goulburn Combined Probus Club	✓		
Rotary Club of Goulburn	✓	✗	
Goulburn Quota Incorporated	✓		
Goulburn Chamber of Commerce	✓	✓	
Country Women's Association Goulburn Branch	✓		
Goulburn Mulwaree Landcare	✓		
The Goulburn Group	✓	✓	24/1/23
Community Voice For Hume	✓		
Stop Gundary Solar Farm	✓		
NSW Farmers' Goulburn Branch	✓	✓	
Community Energy for Goulburn	✓		

[6] Targeted engagement will be undertaken by a specialist consultant during the EIS development phase.
[7] A member of the Mulwaree Aboriginal Community attended an informal community meeting with project team members on 9/12/23.

Audience	Offered	Accepted	Completed
Citizens' Climate Lobby	✓		
Tarago Progress Association	✓	✓	
Infrastructure and service providers			
BP Lightsource – Gundary Solar Farm Proposal	✓	✓	29/11/22
Transgrid	✓		
WaterNSW	✓		
Essential Energy	✓	✓	14/12/22
Fire and Rescue NSW - Goulburn Fire Station	✓		
NSW State Emergency Service - South East Zone	✓	✓	
NSW State Emergency Service - Goulburn Unit	✓	✓	
NSW Rural Fires Service - Goulburn Mulwaree Rural Fire District	✓		

A request for comment was provided to the local Aboriginal Land Council by letter on the 29 November 2022 and followed up by email on the 9 May 2023, however no response was received.

5.5.2.3 Direct engagement

In relation to transport and access, we engaged with Transport for New South Wales (TfNSW) in order to gain an understanding of the view of the project. An email summary of the project was provided to the TfNSW development southern email address on the 9 May 2023 and Premise accredited planner discussed the project with the TfNSW case officer on the 31 May 2023. Written commentary was provided by TfNSW by email on the 2 June 2023 – provided in **Appendix H**.

In summary, TfNSW advised:

- The key state roads are the Hume Highway, Sydney Road, Sloane Street and Braidwood Road.
- A Traffic Impact Assessment (TIA) is required to examine any potential transport related implications of the development with key points to be addressed including:
  - An assessment of the suitability of the local road connections with the state road network at each access point being investigated as well as details on any works required based on traffic analysis (eg the Braidwood Road and Painters Lane intersection).
  - Swept path diagrams to demonstrate the largest vehicles that will be using the state road network where it connects with the local road network can undertake all required manoeuvres to enable access to and from the development site.
  - Oversize and overmass route details, predicted vehicle numbers, and size/dimensions, noting that a special permit is required prior to the transport of any OSOM loads.
- TfNSW generally does not support direct access to a classified road where local road access is available as research shows that increased access density correlates highly with increased

accident rates (as per Section 2.119 (2)(a) of State Environmental Planning Policy (Transport and Infrastructure) 2021).

- Windellama Road is not shown as part of any B-Double route as per the National Heavy Vehicle Regulator (NHVR) approved routes identified on the Restricted Access Maps (RAV MAP). This would need to be addressed if the use of B-Doubles is proposed.

It is confirmed that the above matters will be addressed in a project TIA.

5.6 What we heard

Feedback received via doorknocks, emails, phone calls, briefings or at-property meetings are summarised into the key themes below, along with a cross-reference to where the issues are addressed in the Scoping Report. Where applicable, a response is provided in **Table 13** to outline how the proposal has been modified [or otherwise] as a result of initial feedback received.

Table 13 – Scoping report feedback themes and questions

Feedback – key themes and questions	Landholders (Adjacent)[8]	Landholders (Within 4km)[9]	Local community[10]	Wider community[11]	Special interest groups	Infrastructure and service providers[12]	Local government	State Government	Elected Representatives	Report reference
Social										
Project will impact neighbouring property values	●	●								6.7
There will be no benefit for the Goulburn area	●									6.7
Potential to impact current and future property sales	●									6.7
Opportunities for employment	●	●			●					3
Potential for difficulties getting sufficient skilled labour						●				3
Loss of farmland will lead to loss of jobs in the agricultural sector in this region	●									0
Loss of farmland will lead to loss of goods/stock/food produced by the agricultural sector in this region		●								6.10

[8] Landowners, residents or businesses who directly adjoin the project site (share a boundary). Includes Aurum Metals who hold a mineral exploration licence.
[9] Landowners potentially affected by Gundary & Merino solar farm proposals within 4km of Merino.
[10] Landowners, residents or businesses within 4km of the project site. Includes Lachlan Metals who hold a mineral exploration licence.
[11] Includes local media outlets.
[12] Includes BP Lightsource, the proponents for the proposed Gundary Solar Farm.

Feedback – key themes and questions	Landholders (Adjacent)[8]	Landholders (Within 4km)[9]	Local community[10]	Wider community[11]	Special interest groups	Infrastructure and service providers[12]	Local government	State Government	Elected Representatives	Report reference
Opportunities for to supply goods and services	●	●			●					6.7
Benefits are not shared - the host landowners 'make all the money'	●									6.7
Electricity won't be supplied to locally to Goulburn 'It will go to Sydney'	●									3.1
We don't 'have a say' - the lease of the land is a 'done deal'	●									5
The viability of plans to develop my property into an accommodation and events venue will be impacted	●									6.10
Concerns for mental health of vulnerable neighbours	●									0
Why is compensation not offered to adjacent and surrounding properties who will be affected by construction and operational impacts and potential land devaluation?	●	●			●					6.7
Will there be training and a community benefit fund that supports local groups involved in the arts, sport and other non-profit activities?					●					6.7
Will the project consider including neighbouring properties within the project footprint?	●									1.1

Feedback – key themes and questions	Landholders (Adjacent)[8]	Landholders (Within 4km)[9]	Local community[10]	Wider community[11]	Special interest groups	Infrastructure and service providers[12]	Local government	State Government	Elected Representatives	Report reference
Land use										
Land use should remain for agricultural purposes	●	●							●	1.1.1
Solar farms should be built in the desert and away from homes	●								●	2
Opposed to the industrialisation of farming land	●	●								2
Supportive – solar farms must go somewhere	●									2
'Sun doesn't shine in Goulburn' - this is not an appropriate site for a solar farm	●	●								2.3
What is the site selection process?	●	●								2.3
Aside from the transmission line's location, why was this location chosen?				●						2.3
Why is the project not being built in a dedicated NSW renewable energy zone?	●	●								2.1.1
Sheep will not be able to graze under panels - It has been found wool production is limited and grazing sheep get caught in panel tilting mechanisms	●	●								1.1.1

Feedback – key themes and questions	Landholders (Adjacent)[8]	Landholders (Within 4km)[9]	Local community[10]	Wider community[11]	Special interest groups	Infrastructure and service providers[12]	Local government	State Government	Elected Representatives	Report reference
What does the State Government's inclusion of Goulburn in the Infrastructure SEPP (Renewable Energy and Regional Cities mean for the proposal?				●						4.1.2.1
Is it appropriate to locate this solar farm so close to Goulburn Airport?	●			●					●	2.3
Conflict with housing strategy									●	2.1.3
Heritage										
Aboriginal breast plate found in nearby region – concerns about lateness of heritage consideration					●					6.9.1
Aboriginal scar and ring trees surrounding the property, important flora for this region.					●					6.9.1
Hydrogeology										
This is a high flood area, and the proposed site is very 'boggy'	●							●		6.12
Biodiversity										
Concerns for the cranes, frogs, ducks, quails etc that frequent the area	●									6.5
Loss of dense vegetation that provides a natural screening	●									6.5

Feedback – key themes and questions	Landholders (Adjacent)[8]	Landholders (Within 4km)[9]	Local community[10]	Wider community[11]	Special interest groups	Infrastructure and service providers[12]	Local government	State Government	Elected Representatives	Report reference
Grass will not grow under panels	●	●								6.5
Bushfire										
Will the project pose a bushfire risk?	●	●								6.8.2
Area is prone to grassfires and has high winds, what fire prevention and mitigation processes will be put in place for fires or sparks that might arise from the solar farm and inflamed by high winds?				●						6.8.2
Will you consult the Rural Fire Service (RFS) at state level to obtain their state-wide experience relative to solar farms and RFS at local levels to get a good understanding of fire related conditions in the area?				●						5.7
Access and traffic										
Cumulative impacts of construction traffic with multiple solar farm developments in close proximity				●			●			6.2
Will access to the chicken farms be affected?	●	●								6.2
Safety issues around the access road off Braidwood Road	●									6.2
Safety issues around the access road off Windellama Road	●									6.2

Feedback – key themes and questions	Landholders (Adjacent)[8]	Landholders (Within 4km)[9]	Local community[10]	Wider community[11]	Special interest groups	Infrastructure and service providers[12]	Local government	State Government	Elected Representatives	Report reference
General concern about impacts associated with project traffic	●									6.2
Visual impacts										
Enjoy the current vista (rural lifestyle blocks) - we do not want to overlook a solar farm (glint and glare)	●	●								6.4.1
Have plans to develop land into an accommodation and events venue. Concerned about the impacts to the vista.	●									6.4.1
Would like to understand the actual placement of panels on the site to understand the actual visual impact.	●									6.4.1
Noise and Vibration										
Noise and vibration from construction traffic travelling along gravel/dirt access roads	●									6.4.2
Noise impacting shift worker sleep patterns	●	●								6.4.2
Air Quality										
Dust generated from construction traffic travelling along gravel/dirt access roads	●									6.3
Waste										

Feedback – key themes and questions	Landholders (Adjacent)[8]	Landholders (Within 4km)[9]	Local community[10]	Wider community[11]	Special interest groups	Infrastructure and service providers[12]	Local government	State Government	Elected Representatives	Report reference
What is the decommissioning plan? What will happen to the panels and associated equipment.	●	●								0
Hazard										
Safety issues around the access road off Braidwood Road	●									6.2
Safety issues around the access road off Windellama Road	●									6.2
Will the solar farm affect home and property insurance (fire insurance)?	●	●								6.7
Extra radiation concerns	●	●								6.8
Cumulative impacts										
Concerns around the cumulative impacts during the construction of two solar farms in close proximity							●			6
Concerns around the cumulative impacts during the construction of the solar farms and the potential airport expansion							●			6
What impact will this have on farming land, amenity, visually and environmentally?							●			6.10 6.4.1 6.5

5.7 EIS engagement

Engagement to inform the EIS preparation will be undertaken in accordance with the following guidelines:

- Department of Planning and Environment *Large-Scale Solar Energy Guideline* (DPE 2022);
- State Significant Development Guidelines (DPIE 2022); and
- *Undertaking Engagement Guidelines for State Significant Projects* (DPIE 2022).

5.7.1 ENGAGEMENT TO INFORM THE EIS

5.7.1.1 Target stakeholders

Engagement will continue with all stakeholders contacted as part of the scoping phase and any new stakeholders identified during the preparation of the EIS including (but are not limited to):

- Landholders within 4km of the site;
- Wider community;
- Special interest groups;
- Infrastructure and service providers;
- Local government:
  - Goulburn Mulwaree Council;
- State government:
  - NSW Department of Planning and Environment
  - NSW Department of Industry and Regional Development;
  - NSW Transport for New South Wales; and
- Elected representatives.

An itemised list of these stakeholders can be found in **Table 12**.

5.7.1.2 Engagement approach

A range of tools will continue to be implemented to engage with stakeholders and the community as outlined in **Table 14** below.

Other engagement tools like Community Information Stalls at existing local markets and events where the community already gathers will also be investigated and utilised as appropriate if timing aligns.

Table 14 – Target audience and engagement approach

Target Audience	Phone & email	Website	Door knocks	Newsletter	Meetings	Briefings	Advertisement
Host landholders - Landowners, residents or businesses who own or reside on land designated for the proposal	•	•	•	•	•	•	•

Target Audience	Phone & email	Website	Door knocks	Newsletter	Meetings	Briefings	Advertisement
Adjacent Landholders - Landowners, residents or businesses who directly adjoin the project site (share a boundary)[13]	•	•	•	•			•
Landholders potentially affected by Gundary & Merino proposals within 4km of the project site	•	•	•	•	•		•
Local Community - Landowners, residents or businesses within 4km of the project site[14]	•	•		•			•
BP Lightsource - Proposed Gundary Solar Farm	•	•		•		•	•
Wider community	•	•		•			•
Special interest groups[15]	•	•				•	•
Infrastructure and service providers	•	•		•	•		•
Local Government	•	•			•		•
State Government	•	•				•	•
Elected Representatives	•	•				•	•

5.7.2 PUBLIC EXHIBITION OF ENVIRONMENTAL IMPACT STATEMENT

The Department of Planning and Environment will place the Environmental Impact Statement on public exhibition for a minimum of 30 days (as per Section 5.8 of the EP&A Act). During the exhibition period, government agencies, project stakeholders and the community will be able to review the Environmental Impact Statement and will have an opportunity to make a written submission to the Department of Planning and Environment for consideration in its assessment of the project.

Newsletters will be delivered, and advertisements will be placed in the local newspapers to advise of the public exhibition, where the Environmental Impact Statement can be viewed, and details on community engagement activities.

5.7.3 SUBMISSIONS REPORT

At the completion of the public exhibition period for the Environmental Impact Statement, the Department of Planning and Environment will collate and provide Merino Solar Farm Pty Ltd with a copy of all submissions received. After reviewing the submissions, Merino Solar Farm Pty Ltd will prepare a submissions report that responds to the relevant issues raised. The submissions report will be made publicly available on the Department of Planning and Environment website.

[13] Includes Aurum Metals who hold a mineral exploration licence.
[14] Includes Lachlan Metals who hold a mineral exploration licence.
[15] Includes Aboriginal stakeholders. Engagement with Aboriginal stakeholders will be undertaken by a specialist consultant. This includes engagement with the LALC, Traditional Custodians and knowledge holders for the project area; Elders; Native title holders/claimants; Community leaders; Service providers; and the broader Aboriginal community.

If changes are required to the project as a result of the issues raised in submissions or to minimise environmental impact, a preferred infrastructure report may also be required. If this is required, Merino Solar Farm Pty Ltd would prepare the report to address the changes to the design and submit this for review to the Department of Planning and Environment.

5.8 Ongoing engagement activities

Merino Solar Farm Pty Ltd will continue to work with stakeholders and the community to ensure they are informed about the proposal and have opportunities to provide feedback to the project team.

A list of anticipated engagement activities and their timing is provided

Table 15 – Ongoing engagement activities

Activity	Timing	EIS	Delivery	Operation
Enquiries and complaints hotline	Ongoing	●	●	●
Website	Ongoing	●	●	●
Doorknocks	As required	●	●	●
Email updates	Relevant milestones	●	●	●
Newsletter	Relevant milestones	●	●	●
Newspaper advertising	Relevant milestones	●	●	●
Stakeholder briefings	Relevant milestones	●	●	●
Stakeholder Engagement and Communications Plan	Ongoing	●	●	
Community information stalls *(at existing local markets and events)*	Ongoing	●		
Community information sessions	During EIS exhibition	●		
Displays at council offices	During EIS exhibition	●		
Site signage	Prior to construction		●	
Construction communications plan	Prior to construction		●	
Construction complaints management system	Prior to construction		●	
Construction notifications	7 days before work		●	
Operation communications plan	Prior to operation			●

6. PROPOSED ASSESSMENT OF IMPACTS

6.1 Introduction

An initial review of information has been completed to provide a summary of matters requiring assessment at EIS preparation stage and the level of assessment required for each issue. By reference to the DPIE *State significant development guidelines – preparing a scoping report* (DPIE 2022), a number of factors have been considered through this process, including:

- the scale and nature of the likely impact of the project and the sensitivity of the receiving environment;
- whether the project is likely to generate cumulative impacts with other relevant future projects in the area; and
- the ability to avoid, minimise and/or offset the impacts of the project, to the extent known at the scoping phase.

The following sections provide details on specific assessment areas. A summary table is provided at **Appendix A** categorising these areas as per the Scoping Report Guidelines. The level of assessment identified for each impact is summarised as follows:

- Detailed:
  - Social impacts
- Standard:
  - Land Use
  - Heritage
  - Hydrogeology
  - Biodiversity
  - Bushfire
  - Access and traffic
  - Visual impacts
  - Noise and Vibration
  - Air quality
  - Waste
  - Hazard

6.2 Access

Vehicular access to the site is expected to be provided from the site's existing frontage from Braidwood Road, being State Road No. 79. It has a single lane in each direction with a posted speed limit of 100 km/hr. It runs from the Main South Line in Goulburn to the north of the site via an underpass of the Hume Highway and via Lake Bathurst and Tarago to the south of the site, turning into Goulburn Road at its intersection with Mount Fairy Road in Borough. Goulburn Road connects with the Kings Highway that runs to Canberra to the west via Bungendore and Queanbeyan and to Batemans Bay to the south-east via Braidwood.

Anticipated vehicular movements generated during the installation phase and subsequent operation phase of the proposed BESS and the capacity of the surrounding road network to accommodate those movements are to be addressed in the Traffic Impact Assessment to be provided as part of the EIS. Should upgrades to

the existing road network and access arrangements be required, these will be detailed in the Traffic Impact Assessment.

Materials are anticipated to be transported to the site from Port Botany or from the Port of Melbourne via the routes shown in **Figure 3**. The construction vehicle haulage route would be considered further in the Traffic Impact Assessment to be provided as part of the EIS.

Cumulative impacts associated with the construction of the MSF, together with the development of other projects in the region (such as the Gundary Solar Farm) would be addressed in the project TIA.

6.3 Air

Air quality impacts arising from dust generation and vehicle emissions during construction are to be assessed as part of the Air Quality Impact Assessment to be provided as part of the EIS and managed in accordance with a Construction Management Plan.

Cumulative impacts associated with the construction of the MSF, together with the development of other projects in the region (such as the Gundary Solar Farm) would be addressed in an air quality assessment within the body of the EIS. Given the separation between the projects, air quality impacts are expected to be limited and only likely to occur, if at all, during the construction phase. Implementation of appropriate mitigation measures via a construction environmental management plan (CEMP) would be expected to address the potential air quality impacts.

6.4 Amenity

6.4.1 VISUAL IMPACT

Anticipated visual impacts have been scoped by Iris Visual Planning and Design (Iris) and are discussed in the attached Visual Assessment Memo at **Appendix F.** Potential visual impacts are expected to be limited by a network of hills and ridges surrounding the site, with a visual catchment of approximately 1km and more distant views from elevated areas.

The potential visual impacts of the projects on nearby private dwellings and public roads will be assessed by the EIS, including:

- Representative views from Braidwood Road, Windellama Road, Painters Lane and Gretta Road require detailed assessment.
- Northern site - 26 of the 53 dwellings within four kilometres of the project require detailed assessment.
- Southern site - 9 of the 28 dwellings within four kilometres of the project require detailed assessment.

The preliminary visual assessment was undertaken in accordance with the requirements of the *Technical Supplement – Landscape and Visual Impact Assessment, Large-Scale Solar Energy Guideline*, prepared by the NSW Department of Planning and Environment, 2022 ('the DPE Technical Supplement').

Cumulative impacts associated with the construction of the MSF, together with the development of other projects in the region (such as the Gundary Solar Farm) would be addressed in the project Visual Impact Assessment (VIA). As per the Section 5 of the attached visual memo (**Appendix F**), preliminary consideration of the potential for cumulative impacts has occurred. This assessment notes that there are limited non associated receivers with the potential to view both projects, noting these are generally located to the west of Windellama Road. Attachment D to **Appendix F** provides mapping to show these receivers.

6.4.2 NOISE AND VIBRATION

Potential noise and vibration impacts are anticipated to be limited by the developments distance to residential receivers, surrounding vegetation and topography.

Although noise and vibration impacts are expected to occur during both construction and operation of the project, they are expected to be primarily limited to the construction stage. Construction activities impacts would include preparatory earthworks, delivery, and assembly of the SF and BESS infrastructure. Impacts during operation would include the operation of the BESS and noise from associated vehicles.

The potential noise and vibration impact of the construction and operation BESS on nearby sensitive receivers would be considered in a Noise and Vibration Impact Assessment to be provided as part of the EIS. The Noise and Vibration Impact Assessment will be prepared in accordance with the:

- *NSW Interim Construction Noise Guideline (DECC 2009);*
- *NSW Noise Policy for Industry (EPA 2017);*
- *NSW Road Noise Policy (DECCW 2011);* and
- *Assessing Vibration: A Technical Guideline (DECC 2006).*

Cumulative impacts associated with the construction and operation of the MSF, together with the development of other projects in the region (such as the Gundary Solar Farm) would be addressed in the project Noise Impact Assessment (NIA). Given the separation between the projects, significant cumulative impacts are not predicted to be likely.

6.5 Biodiversity

Biodiversity values associated with the site have been determined through an initial site visit and analysis of a range of desktop database searches, including the following:

- Threatened species listings under the EPBC Act and *Biodiversity Conservation Act 2016* (BC Act)
- Records of threatened species via a search of the NSW Bionet database within a 10km radius
- A search of the PMST within a 10km radius
- Groundwater Dependent Ecosystems Atlas
- Areas of outstanding biodiversity value declared under the BC Act

An initial site visit was conducted on the 15th and 16th November 2022 to identify and map vegetation condition zones and assess potential threatened species habitat. The above sources were used to generate a list of threatened species that have the potential to occur on the subject site prior to the site visit (refer to **Table 20**).

Vegetation mapping on the site identified seven vegetation condition zones (refer Figure 13 and Figure 14):

- Cropped land;
- Native remnant paddock trees;
- Exotic sown pasture;
- Wet areas with a mix of exotic and native species;
- Native grassland;
- Exotic plantings; and
- Native plantings.

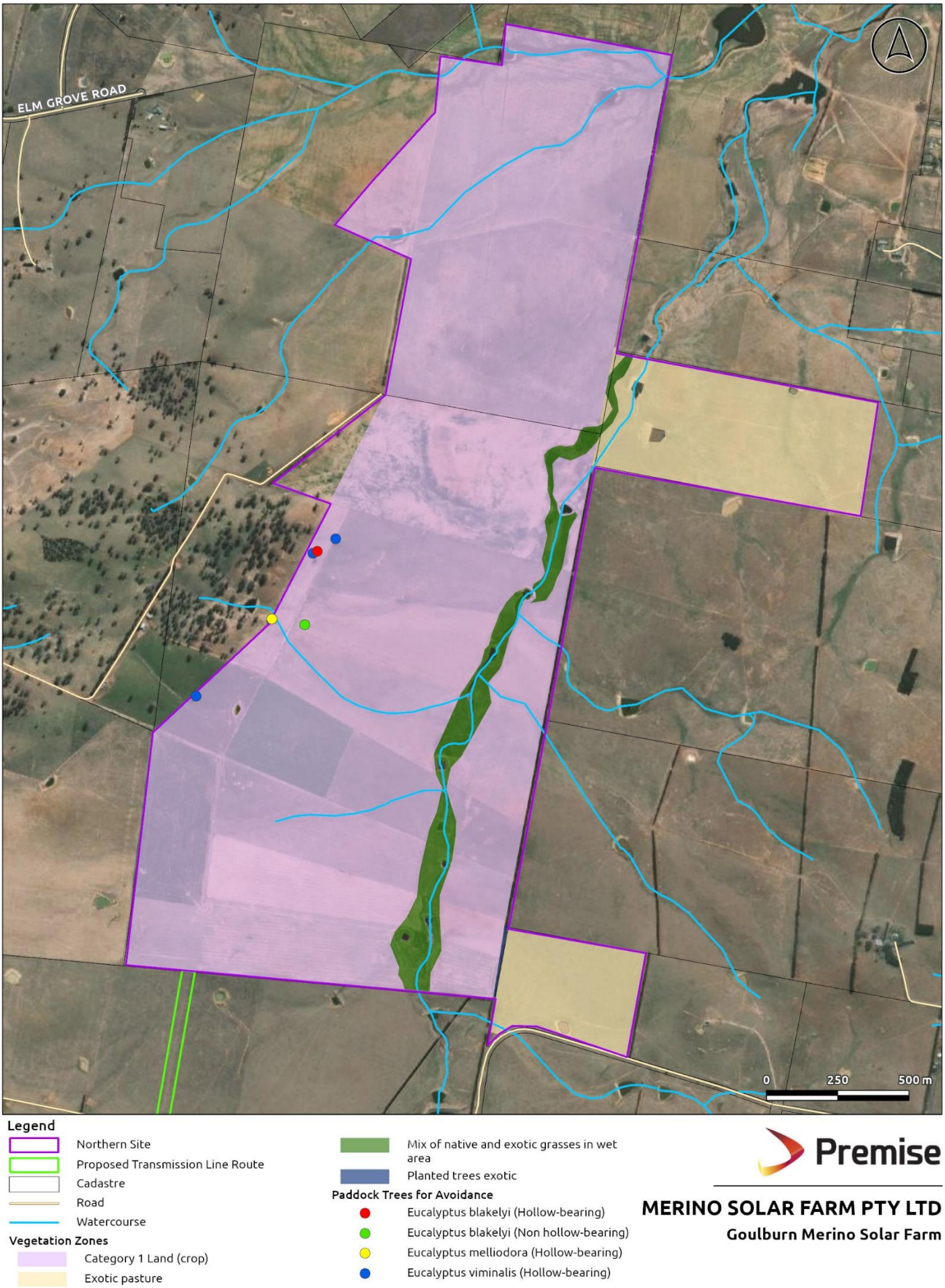


Figure 12 - Vegetation Zones - North

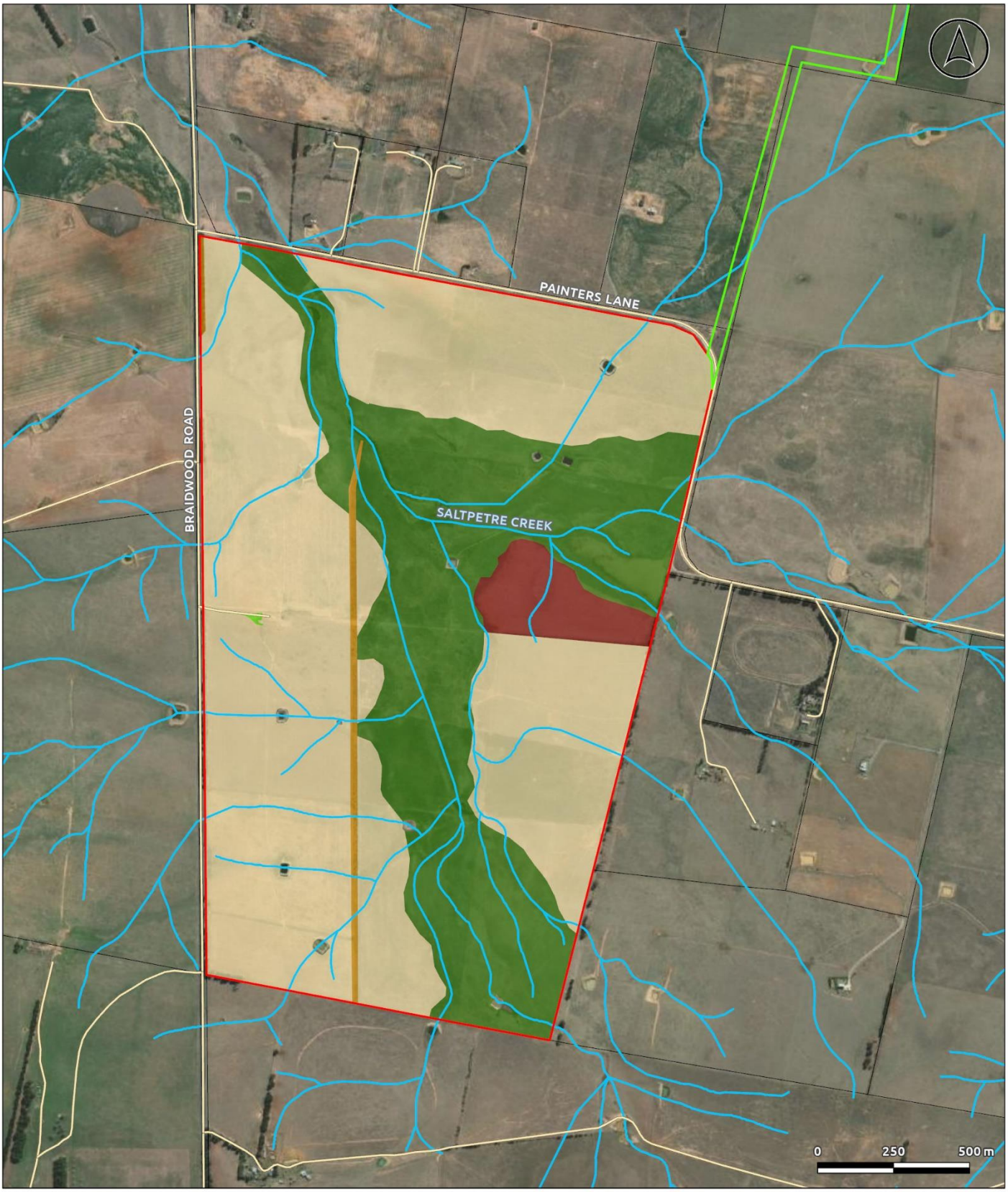


Figure 13 - Vegetation zones - South

In the northern site, a large proportion of the area is cropped land or has been sown to pasture. Groundcover is highly disturbed and is regularly cultivated. Six mature native trees are present on the western edge of the northern site, of which five are hollow bearing. These native trees have been identified as Blakely's Red Gum (*Eucalyptus blakelyi*), Ribbon Gum (*E. viminalis*) and Yellow Box (*E. melliodora*).

In the southern site, a large proportion of the area is exotic sown pasture with a mix of annual exotic grass species and perennial grasses including *Phalaris aquatica*. Some paddocks have not been sown to *Phalaris* and are dominated by exotic annual grass species. One small paddock contains high cover of *Amphibromus* sp. a native grass and has therefore been mapped as native grassland. A row of native planted trees and shrubs runs north to south and includes species of *Acacia* and *Eucalyptus*.

The centre-third of the southern site is prone to flooding and waterlogging, and at the time of initial survey contained a mix of exotic perennial grasses, and native grasses and grass-like plants including *Juncus* spp.

Habitat features identified on the site are hollow-bearing trees, large grass tussocks, creeks, dams and mudflats. The following habitat features do not occur anywhere on the site: cliffs, caves or tunnels, rocky outcrops, low shrubs, termite mounds, fallen timber. Observations on the presence of suitable habitat features for each threatened species are included in **Appendix B**.

Habitat suitability assessment conducted for the subject site identified potentially suitable breeding habitat for the following species:

- Gang-gang Cockatoo
- South-eastern Glossy Black-Cockatoo
- Superb Parrot
- Australian Painted Snipe
- Green and Golden Bell Frog
- Yellow-spotted Tree Frog,
- Key's Matchstick Grasshopper
- Striped Legless Lizard

Habitat suitability assessment identified foraging habitat for the following species:

- Dusky Woodswallow (Artamus cyanopterus cyanopterus)
- Curlew Sandpiper
- Black-necked Stork
- Grey Falcon
- White-throated Needletail
- Koala
- Grey-headed Flying-fox

Five species of threatened flora were identified as having potential habitat within proximity to Saltpetre Creek and waterlogged areas of the southern site:

- River Swamp Wallaby-grass
- Wingless Raspwort
- Basalt Pepper-cress
- Hoary Sunray
- Omeo Stork's-bill.

Further survey will be required to determine the presence of threatened species on the subject site. Avoidance of suitable habitat such as hollow-bearing trees is an option to reduce the required survey effort.

Other relevant biodiversity characteristics are discussed in **Table 16**.

Table 16 – Biodiversity characteristics

Category	Type/comment	Legislation	Status	Presence likelihood
Key fish habitat	Goulburn-Mulwaree dataset	*Fisheries Management Act 1994*	-	Saltpetre Creek (on southern site) is mapped as Key fish habitat
Vegetation mapping and threatened ecological communities	PCT 3376 – Southern Tableland Grassy Box Woodland	White Box Yellow Box Blakely's Red Gum Critically Endangered Ecological Community (CEEC) under the BC Act 2016 and EPBC Act 1999.	Critically Endangered	Woodland to the west of the northern site is mapped as this PCT on the NSW Extant State Vegetation Type Map (NSW DPE, 2022c). Paddock trees on the northern site are likely to form part of PCT 3376. Conformance with the state and federal listing for these communities will require further survey.
	PCT 3415 – Southern Tableland Red Grass-Spear Grass Grassland	White Box Yellow Box Blakely's Red Gum Critically Endangered Ecological Community (CEEC) under the BC Act 2016 and EPBC Act 1999.	Critically Endangered	Community is mapped within State Vegetation Type Map (NSW DPE, 2022c) as occurring within the southern subject site. Native grasses are limited to small patches around wet areas in southern site. Conformance with the community will require further sampling.
		Natural Temperate Grasslands EPBC Act 1999	Critically Endangered	Conformance with the community will require further sampling.

Initial findings of database search analysis and site survey are that:

- The site is predominantly cleared and disturbed for agricultural purposes, providing ample area for the installation of solar farm infrastructure without harming extant native vegetation;
- None of the study area falls within the Biodiversity Values Map.
- Analysis of potential MNES that may trigger the need for a referral to the Federal Department of Climate Change, Energy, the Environment and Water (DCCEEW):
  - Did not identify any World Heritage Properties National Heritage Places or Wetlands protected by the Commonwealth EPBC Act; and
  - Identified five plants, one reptile, two amphibians, six birds, one insect and two mammals as having potentially suitable habitat on the subject site.
  - Identified two listed threatened ecological communities, with the potential to occur in proximity to the site.

The project will require a Biodiversity Development Assessment Report (BDAR) to assess impacts to biodiversity in accordance with the Biodiversity Assessment Method (BAM) and requirements of the NSW *Biodiversity Conservation Act 2016* (BC Act). It is expected that the project will be referred to DCCEEW and that the project SEARs will address their requirements.

6.6 Built Environment

As the site is located in a regional area predominantly used for grazing of modified pastures, the built environment in the locality is limited to transport infrastructure (roads and the Goulburn Airport) and farm dwellings and infrastructure. Rather than local streets with footpaths and low speed limits, roads in the locality are inter-state highways or regional roads with speed limits of 100km/hr or more whilst the Goulburn Airport is limited to flight training, skydiving and private flights. Accordingly, built environment impacts are limited to those experienced by non-associated receivers as identified in **Section 2.2**.

Preliminary scoping assessment of these impacts is provided throughout Section 6, including air impacts in **Section 6.3**, amenity impacts in **Section 6.4**, hazard and risk impacts in **Section 6.8**, land use impacts in **Section 6.10** and water impacts in **Section 6.12**. Each of these impacts is to be considered in greater detailed in the EIS. The potential for cumulative impacts would also be considered.

6.7 Economic

The proposed development is likely to have a net positive economic impact derived from creating local employment opportunities during the construction, operation and decommissioning phases, as well as by contributing to electricity supply from renewable sources and stability (due to the battery component). Improved electricity and supply and stability are expected to contribute towards downward pressure on electricity prices paid by residents of the local area, as well as by users of the broader electricity network.

Whilst impacts to land values are not a material planning consideration, any perceived economic impacts to property prices of local residents as a consequence of air, visual, noise and vibration, hazard, land use, social or water impacts will be mitigated through mitigation measures such as the implementation of a construction management plan, landscaped buffers and adequate buffers to associated and non-associated dwellings. Engagement with the Insurance Council of Australia is proposed to ensure no offsite impacts to insurance policies of nearby non-associated landowners.

Opportunities for community benefit sharing will be investigated in line with the recommendations of the DPIE *Large Scale Solar Guidelines* (2022).

Opportunities will be investigated through local procurement to engage local people and engage with local businesses throughout the construction phase. This will be detailed in the project economic assessment.

Preliminary, scoping assessment of these impacts is provided throughout **Section 6**. Each of these impacts is to be considered in greater detailed in the EIS.

6.8 Hazard and Risks

6.8.1 HAZARDOUS AND OFFENSIVE DEVELOPMENT

Impacts from an electromagnetic field (EMF) may be generated by transmission lines and underground cables. EMF risks are expected to be below the International Commission on Non-Ionizing Radiation Protection (ICNIRP) guidelines (adopted by the Australian Radiation Protection and Nuclear Safety Agency, ARPANSA).

Nevertheless, there is a perception that components of the proposed development, primarily the inclusion of a switching station and BESS, may significantly alter the EMF within a locality and thereby cause harm to residents and the environment.

Lithium batteries are identified as Class 9 under the *Australian Dangerous Goods Code* (National Transport Commission 2020). Under the *Hazardous and Offensive Development Application Guidelines – Applying SEPP 33* (Department of Planning 2011) given effect under Clause 4.14 of *State Environmental Planning Policy (Resilience and Hazards) 2021*. Class 9 goods do not exceed the screening thresholds as they "pose little threat to people or property" (Department of Planning 2011, p. 33).

Accordingly, a Preliminary Hazard Analysis (PHA) is to be provided as part of the EIS and will assess EMF levels associated with the proposed infrastructure.

The potential for cumulative impacts associated with the operation of the project would also be considered.

6.8.2 BUSHFIRE

The entirety of the site is mapped as Vegetation Category 3 on the Bushfire Prone Land Map, with the exception of a minor portion in the north-eastern corner of Lot X DP38377 that is mapped as Vegetation Category 1 – refer **Figure 15**.

The proposed BESS has the potential to generate radiant heat and may have the potential to result in impacts to bushfire threat levels. An assessment of impacts would be addressed within the body of the EIS and would ensure that project parameters and the requirements of RFS and F&RNSW are clearly understood, and that appropriate mitigation measures are put in place.

A bushfire assessment would be incorporated into the EIS.

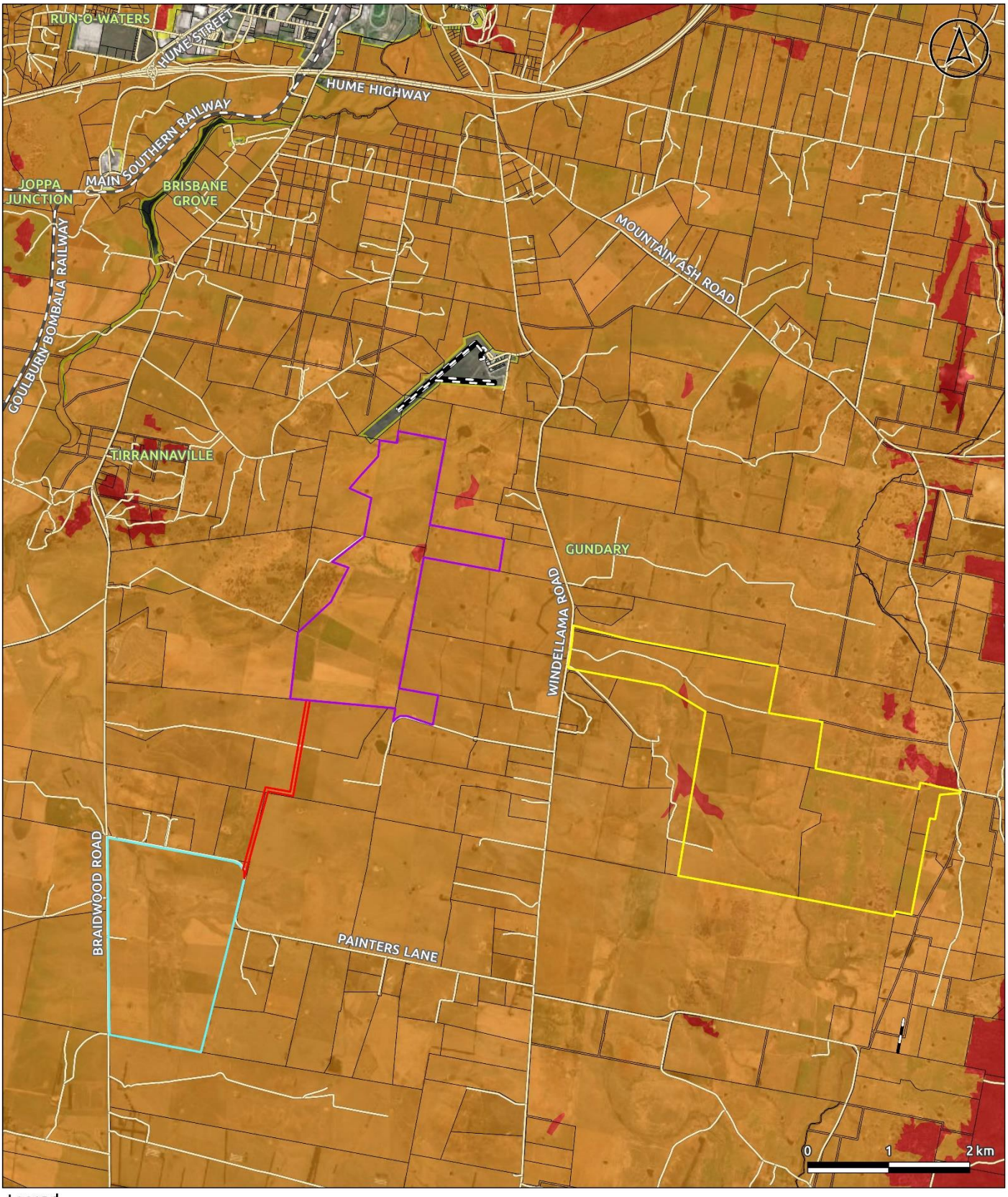


Figure 14 - Bushfire prone land

6.8.3 WASTE

The likely waste generation associated with the proposed SF and BESS, would mainly occur during the construction stage and may include green waste from cleared vegetation, construction materials, general waste from site personnel and spoil. Waste generated during the operation of the proposed SF and BESS is expected to be minimal.

Most solar and battery components are expected to be readily recyclable at end of life.

Waste Generation would be assessed as part of a Waste Management Plan and managed via a Construction Management Plan. Waste management principles, including the need for avoidance and recycling where possible, would be outlined in the project EIS.

6.9 Heritage

6.9.1 ABORIGINAL HERITAGE

Whilst the site is not identified as being an item of Aboriginal or European heritage significance or within a heritage conservation area under the GMLEP, an AHIMS Basic Search on 31 January 2023 identified six recorded sites within a ten kilometre radius of the site, recorded as (refer to **Appendix B**):

- Three artifacts approximately 4.3 kilometres to the southwest of the site
- An artifact approximately 1 kilometre to the northwest of the site
- A hearth approximately 1.7 kilometres to the north of the site
- A Potential Archaeological Deposit (PAD) approximately 1.7 kilometres to the north of the site

These sites are not recorded in the impact area and are not considered likely to be impacted by the development. Furthermore, a review of Native Title Vision mapping from the National Native Title Tribunal identifies that there are no Native Title Determination Areas near the site.

Nevertheless, an Aboriginal Cultural Heritage Assessment is expected to be needed to support the EIS, identifying potential impacts and necessary management and mitigation measures.

6.9.2 NON-ABORIGINAL HERITAGE

A review of the GMLEP 2009, State Heritage Register and Department of the Environment Australian Heritage Database identified the following items of heritage significance proximate to the site (refer **Figure 19**):

- Locally heritage listed I599 "Pelican Homestead and Shearing Shed" at 4840 Braidwood Road, approximately 450 meters to the south of Indicative Access 1- Braidwood Rd;
- Locally heritage listed I596 "Tirranna Public School" at 4986 Braidwood Rd, approximately 1 kilometre to the north of Indicative Access 1- Braidwood Rd;
- Locally heritage listed I595 ""Tirranna" homestead, gardens, Gibson family cemetery and veterans allotments" at 4971–5071 Braidwood Road, approximately 900 meters to the west of Indicative Access 1- Braidwood Rd; and
- Locally heritage listed I597 "St Andrew's Anglican Church and Cemetery" at 13 Tirranna Lane, approximately 1.3 kilometres to the north of Indicative Access 1- Braidwood Rd.

Consideration of the potential for impacts to historic heritage would be incorporated within the body of the EIS.

6.10 Land Use

6.10.1 STABILITY

A single mining exploration licence applies to the site, being EL9048, held by Aurum Metals Pty Ltd until 15 February 2026 unless renewed prior. Engagement with Aurum Metals has occurred to seek comment about the project however a response has not been received.

It is noted that the site is on the eastern edge of the EL and therefore on the limit of any future anticipated mining area. It is also in relative proximity to the Goulburn airport and a range of large lot residential allotments in the north, further contributing to the constrained nature of this area for the purposes of mining activities.

6.10.2 SURROUNDING LAND USES

The entirety of the site, together with the majority of the land in within 2km (77.7%), is mapped via the Landuse Mapping for NSW 2017 spatial dataset as being used for grazing of modified pastures – refer **Figure** 17.

Table 17 – Land use summary within 2 km of the site

Land Use	Area (hectares)	Proportion (%)
Managed resource protection	20.47	0.20
Other minimal use	0.33	0.00
Grazing native vegetation	716.71	7.15
Plantation forests	19.42	0.19
Grazing modified pastures	7786.63	77.70
Cropping	176.45	1.76
Perennial horticulture	7.96	0.08
Land in transition	0.36	0.00
Intensive animal production	45.00	0.45
Residential and farm infrastructure	1027.35	10.25
Services	52.63	0.53
Transport and communication	126.97	1.27
Reservoir/dam	11.34	0.11
River	21.91	0.22
Marsh/wetland	8.24	0.08
TOTAL	**10021.77**	**100**

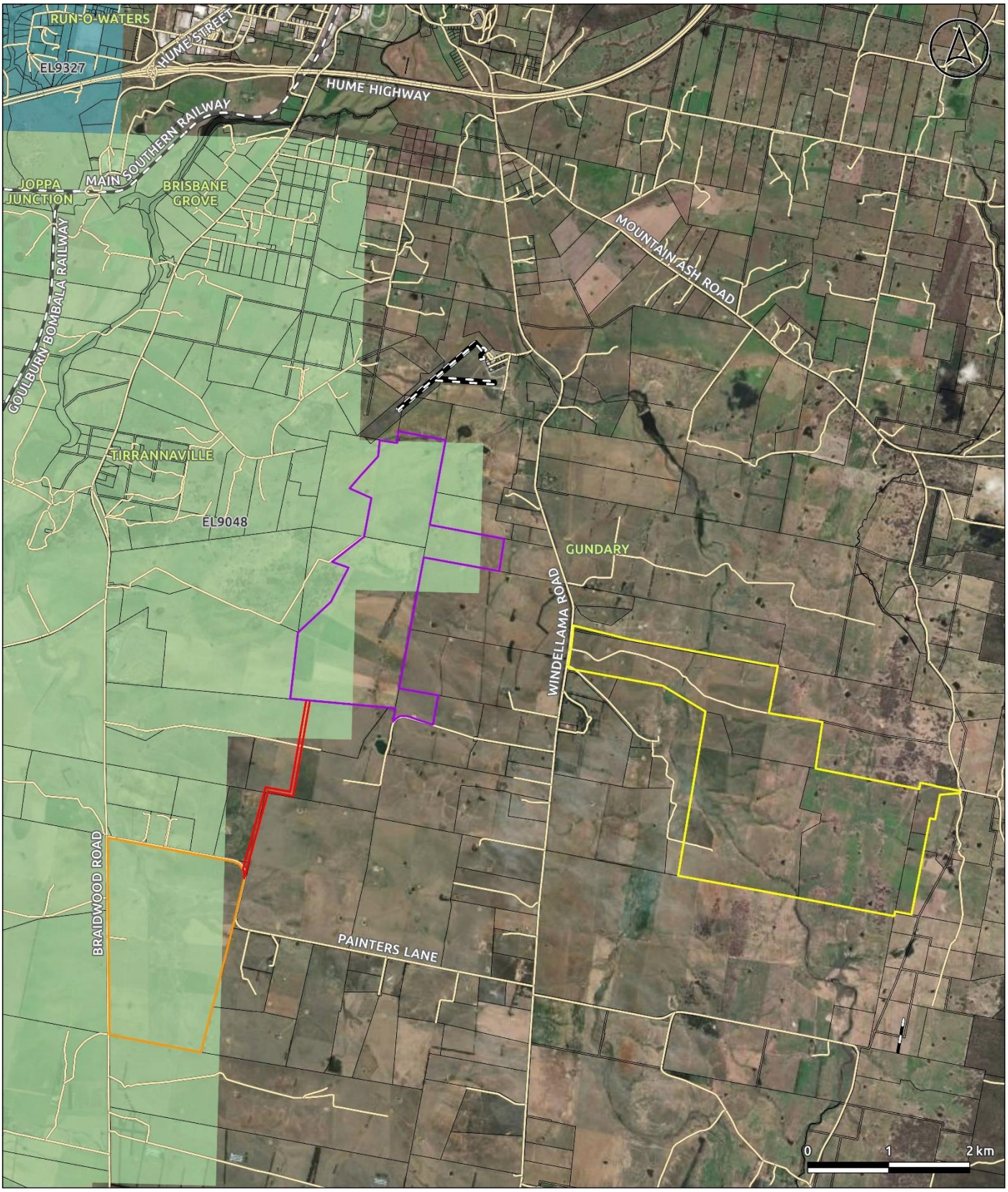


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Figure 15 - Mining titles

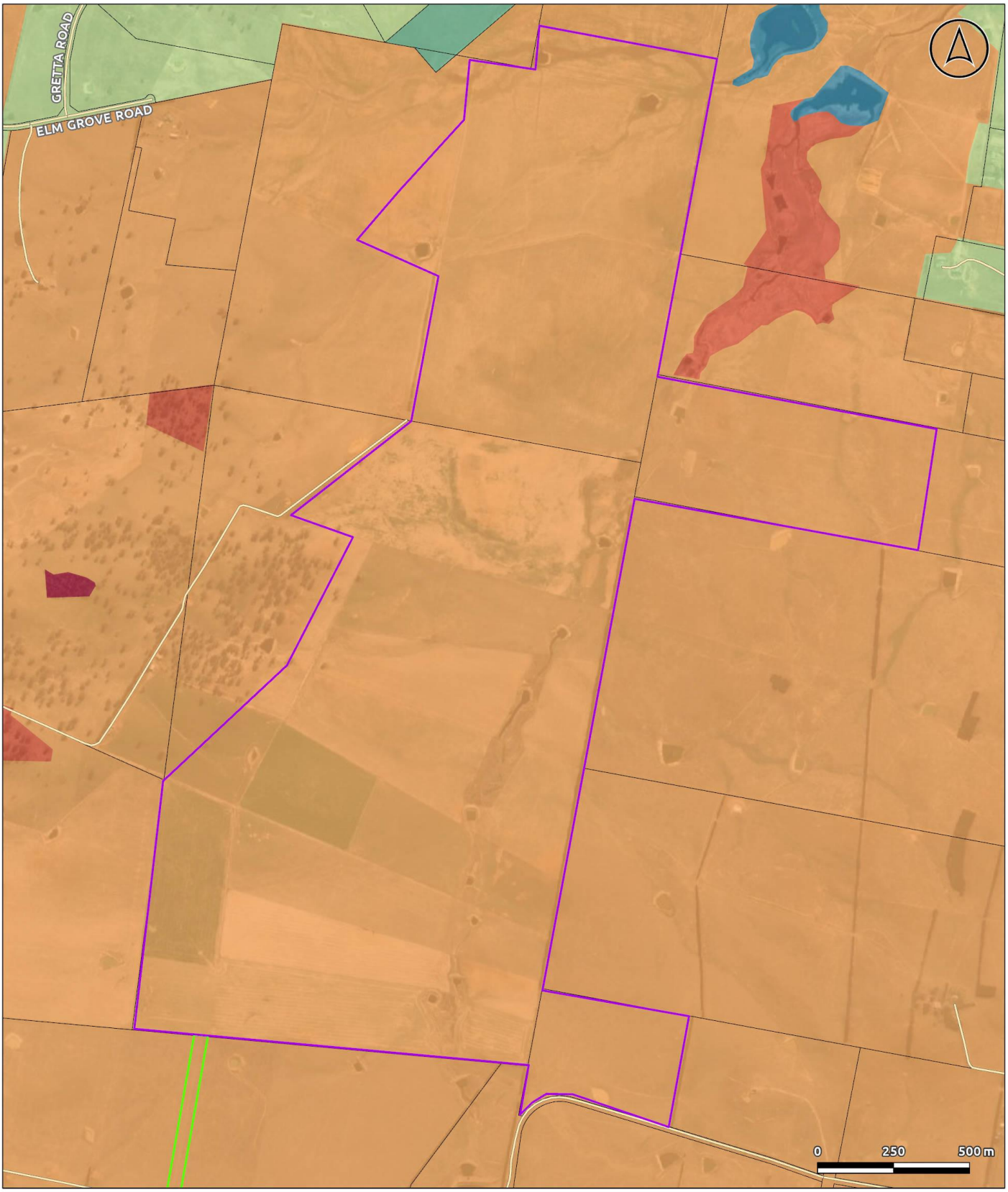


Figure 16 - Land use north

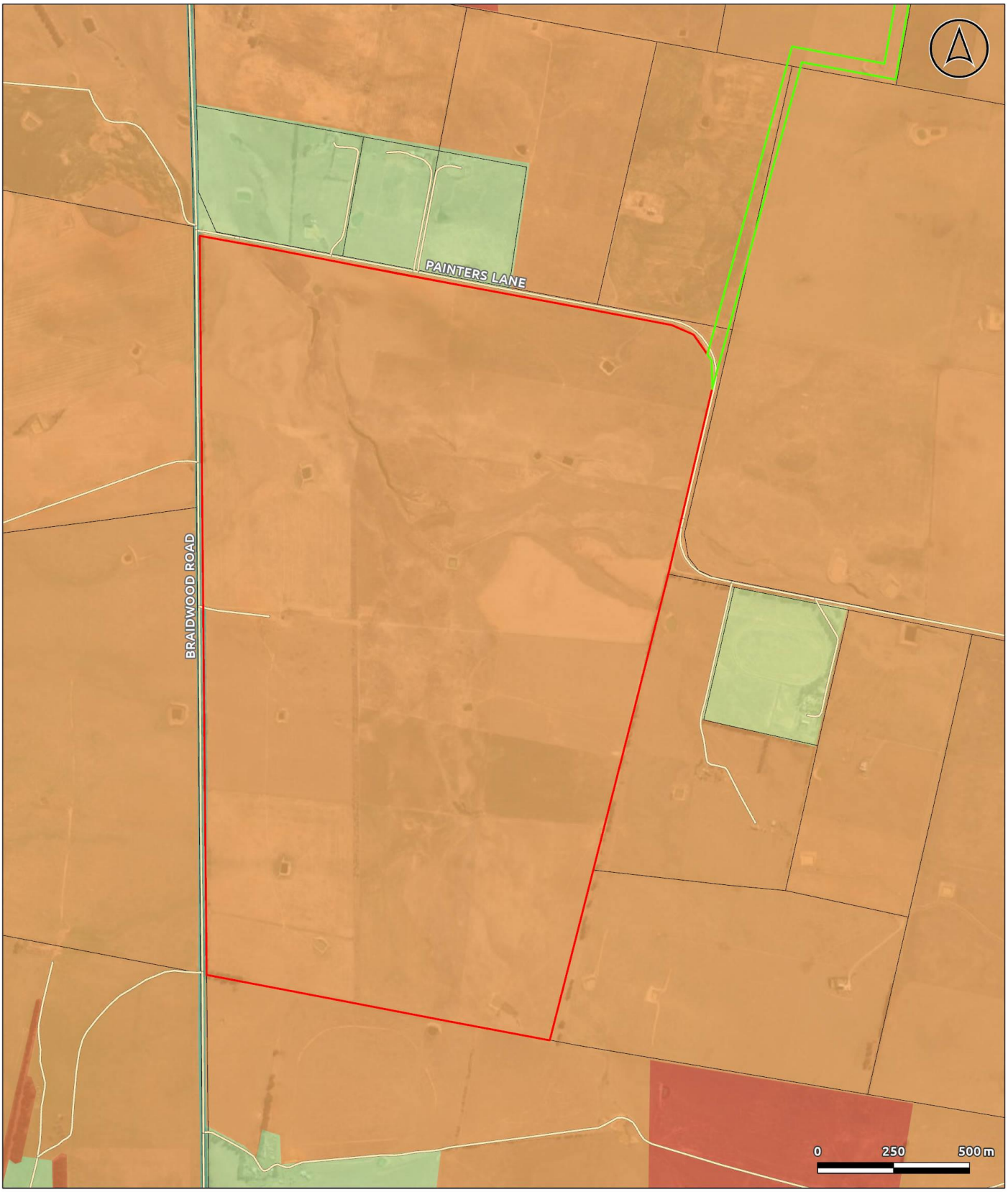


Figure 17 - Land uses within 2km - South

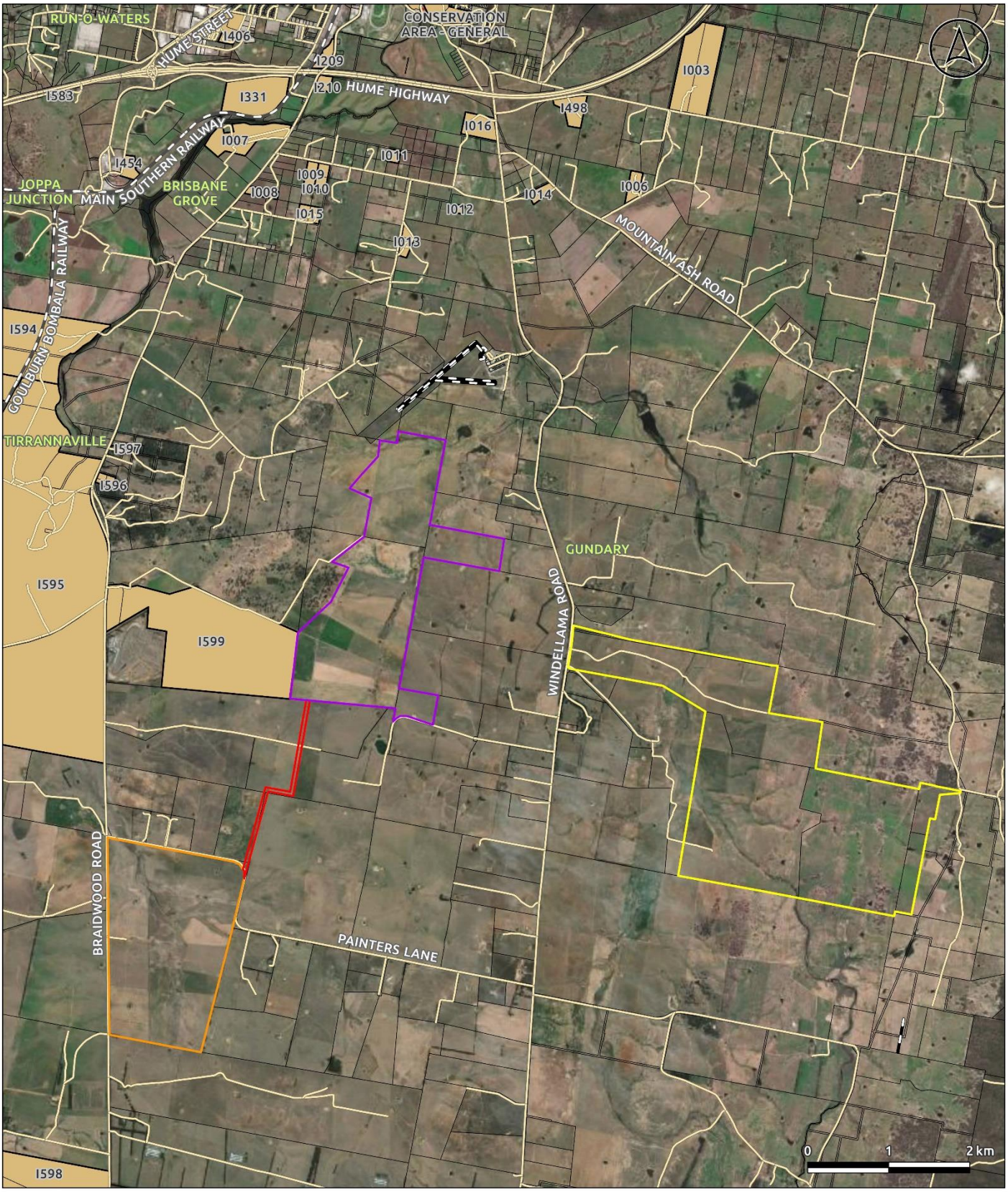
6.10.3 OTHER USES

A detailed agricultural impact assessment would be produced in accordance with the provisions of the DPE Large Scale Solar Guidelines (2022), noting that the site is predominantly mapped as Class 4 (Moderate to Severe Limitations) land capability, with the exception of land along Saltpetre Creek and its tributaries, which is mapped as Class 5 (Severe Limitations) – refer **Figure 20**. This will necessitate a level 2 soil assessment.

The compatibility of the proposed project with the surrounding land uses, including consideration of the surrounding land uses zones and existing uses and targeted consultation with surrounding landowners would be completed, including preparation of a Land Use Conflict Risk Assessment in accordance with the Department of Industry's *Land Use Conflict Risk Assessment Guide*.

The land is not mapped as BSAL and is not mapped via the draft State Significant Agricultural Land map.

Opportunities for colocation of agricultural land uses with the solar farm once operational would be pursued, both as a means of ensuring the ongoing use of the land for agricultural purposes and to ensure the appropriate control of groundcover (such as through appropriate sheep stocking rates).



Sources: © State of NSW, Department of Customer Service, Spatial Services 2022
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GDA2020 MGA Zone 55 File: 221299_03.aprx Prepared By: adam.davis Date: 10/02/2023

Legend

Project Area
- Northern Site
- Southern Site
- Proposed Transmission Line Route
- Proposed Gundary Solar Farm
- Cadastre
- Road
- Railway
- Runway

EPI Heritage
- Conservation Area - General
- Item - General

Premise

MERINO SOLAR FARM PTY LTD

Goulburn Merino Solar Farm

Figure 18 - Heritage

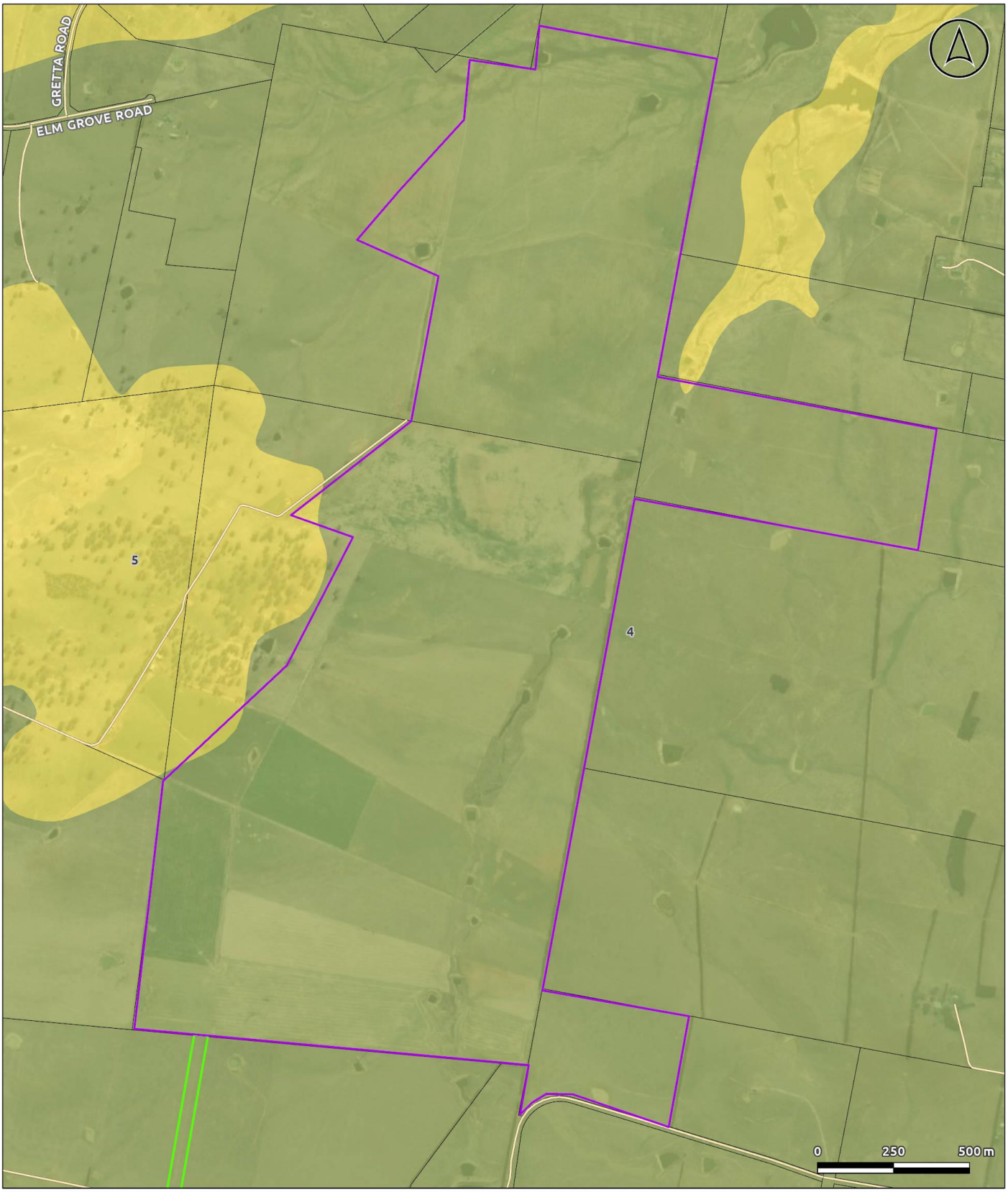

Figure 19 - Land capability - North

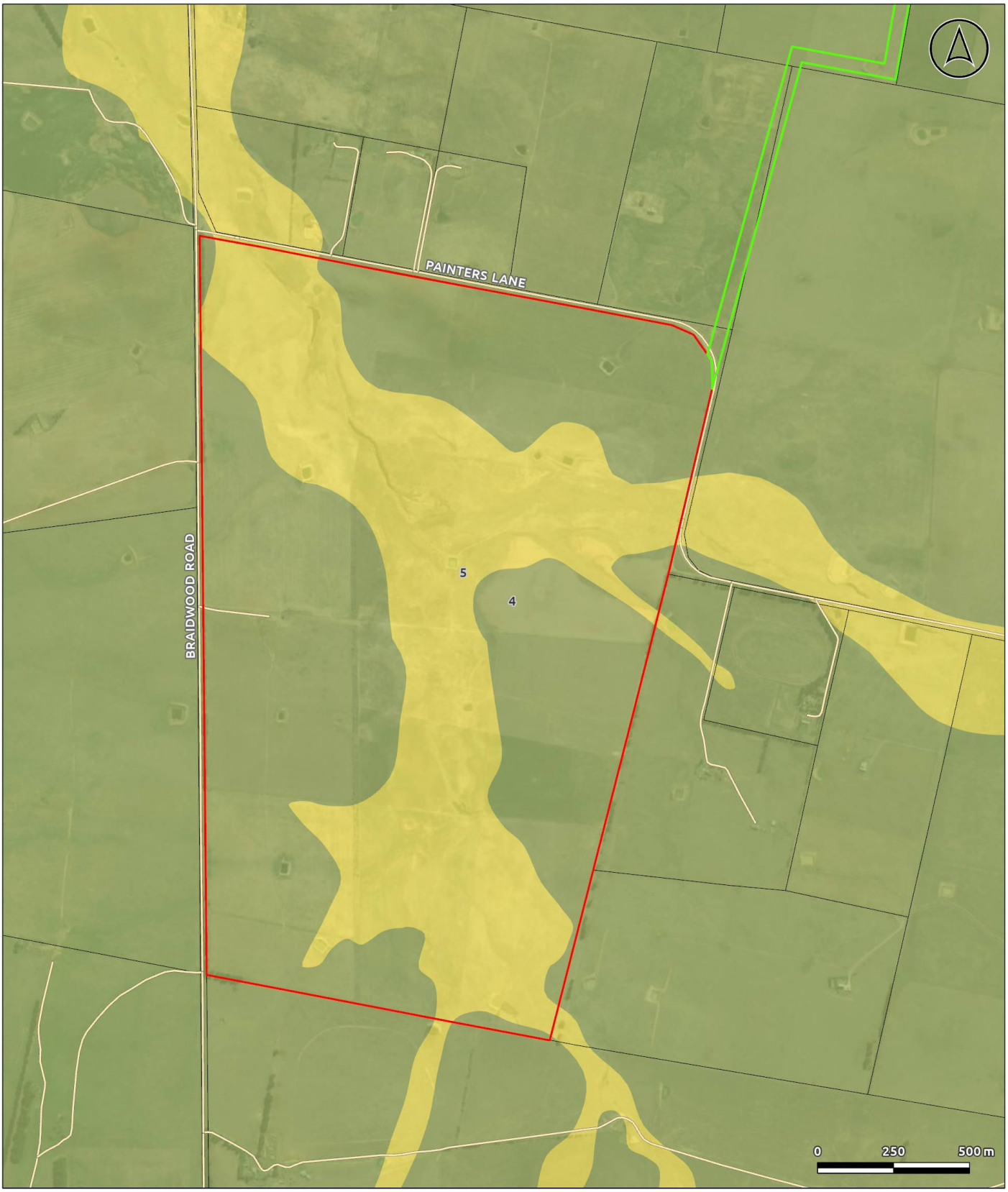

Figure 20 - Land Capability - South

6.11 Social Impact

The anticipated social impacts have been scoped by AAP Consulting in the attached Social Impact Scoping Report (**Appendix E**). Social impacts have been assessed using the *Social Impact Assessment Guidelines for State Significant Projects (Department of Planning Industry and Environment, 2021)* and included conducting desktop research on comparative projects, engagement with stakeholders, and primary data collection of social commentary.

Desktop research indicated that the nearest known state-significant solar development to the subject site is the Gundary Solar Farm, located approximately 6 km to the east of the Project and proposed to be accessed from Windellama Road off the Hume Highway, at 961 Windellama Road. A review of scoping reports, response to submissions and media has been undertaken, and the key community sentiments towards this project was used to assess the potential community reaction to the current development.

A number of engagement activities including interviews, forums, fact sheets, meetings and open days were conducted during the scoping phase of the project. The outcomes of these activities have been used to further inform the scoping of likely social impacts. Additional details of engagement activities and outcomes is detailed in **Section 5**.

The scoping phase determined a number of social impacts that required further investigation during the EIS phase. These impacts, affected people, and the level of assessment required are summarised in **Table 18** (reproduced from Table 4.4 of the Social Impact Scoping Report - **Appendix E**).

Table 18 – Scoped likely social impacts

Impact to people	Social Impact Category	Affected people	Impact type	Level of Assessment
Project activity: project scoping and site justification				
• The use of the land for the production and storage of solar energy limiting future developments in the locality	• Surroundings	• Council • Holder of mining exploration license held on the site (EL9048) • Community within the social locality	Negative	Standard
• Commentary about changes to land use affecting the value of surrounding properties	• Livelihoods	• Nearby property owners	Negative	Standard
• Stress and uncertainty arising from the proposed changes in land use and potential land use conflicts	• Health and well-being • Livelihoods	• Community within the social locality, including those with vulnerabilities (i.e., the elderly or suffering from health conditions) • Holder of mining exploration license held on the site (EL9048)	Negative	Minor
• The validity of solar and wind as an economic and efficient resource to meet the needs of the Australian energy mark	• Decision-making systems	• Community within the social locality	Negative / Positive	Minor
Project activity: construction				
• Changes to the land use resulting in potential loss of flora and fauna, changing how people experience their environment and damaging the rural landscape	• Surroundings	• Community within the social locality	Negative	Standard
• Likelihood of the project causing intangible harm through cultural and physical loss and tangible harm to items of heritage and cultural significance	• Culture	• Aboriginal and Torres Strait Islanders • Community within the social locality	Negative	Standard

Impact to people	Social Impact Category	Affected people	Impact type	Level of Assessment
• Changes to amenity resulting from construction, affecting how people live (i.e., because of construction dust, noise, lighting and headlight glare)	• Way of life • Health and well-being	• Community within the social locality, including those living along the access roads and haulage routes and those with vulnerabilities (i.e., the elderly or suffering from health conditions)	Negative	Detailed
• Increased traffic and temporary disruptions to traffic movements on the local road network causing day to day disruption for people in the locality due to increased travel times or access changes that potentially discourage visitors to the area	• Access • Livelihoods	• Community within the social locality, including those living along the access roads and haulage routes (i.e., Windellama Road, Braidwood Road, Painters Lane, residents) • Visitors to the area	Negative	Standard
• Economic stimulus to local business owners resulting from the proposal procurement opportunities and increased patronage	• Livelihoods	• Local business	Positive	Standard
Project activity: operation				
• Changes to the visual landscape, something that people value, including impacts from glint and glare	• Way of life • Surroundings	• Nearby neighbours • Those in the visual catchment	Negative	Detailed
• Community investment initiatives leading to improved sustainability and enhancing resilience	• Community	• Community within the social locality	Positive	Minor
• Changes to land use affecting the availability of land for agricultural purposes. Fear that the presence of the Project will devalue properties	• Livelihoods	• Council • Broader community • Nearby neighbours	Negative	Minor

Impact to people	Social Impact Category	Affected people	Impact type	Level of Assessment
• Benefits of intergenerational equity due to solar farms being used as an alternate energy source	• Way of life	• Community within the social locality	Positive	Minor
• The potential for a decline in safety for those living near the Project due to fire risks and other health-related impacts (EMF/dust/road safety etc.)	• Health and well-being	• Community within the social locality, including those with vulnerabilities (i.e., the elderly or suffering from health conditions) • Road users	Negative	Standard
Project activity: Employment of workforce				
• Enhanced well-being from job opportunities and training, including increased opportunities for vulnerable groups • Opportunities for small local businesses to increase services and flow on economic benefits during construction and operation	• Livelihoods	• Community within the social locality • Aboriginal and Torres Strait Islanders • Businesses	Positive	Minor
• Changes to the local population causing a decline in the composition and character of the community	• Community	• Community within the social locality	Negative	Minor

The scoping phase has identified several likely social impacts of the Project, which will require additional assessment during the EIS. Technical specialists will carry out several detailed studies and investigations, including (but not limited to) visual impact, cultural heritage, biodiversity, noise and traffic.

Subsequent phases of the SIA program will include:

- a detailed update of the baseline social profile to ensure that any further baseline data relevant to the impacts identified is obtained
- further validation of the area of social influence and identification of affected communities and vulnerable groups
- collection of primary research data through participatory engagement methodologies to understand the perceptions of the identified stakeholders within the social locality and those indirectly affected by the Project
- a comprehensive assessment and evaluation of social impacts against existing baseline conditions.

The SIA will seek broader involvement across the stakeholder groupings identified over the subsequent phases of the EIS, including further engagement with the Council, businesses and the community regarding impacts related to community benefits, accommodation and services.

The scoped issues will be further explored and validated during the EIS preparation phase using several research methodologies, including a participatory and impartial engagement approach to inform the SIA. This engagement will build upon the engagement carried out by Merino Solar Farm Pty Ltd as part of the development of the EIS.

6.12 Water

The proposed development is unlikely to impact groundwater as it does not require the extraction of groundwater. The depth of construction is not expected to penetrate the average recorded standing water level of bore within three kilometres of the site at 17 metres. Methods by which stormwater would be managed would be outlined as part of the EIS.

The suitability of the ground conditions for the proposed development and any potential for contamination associated are to be addressed in thorough analysis of past land uses and activities. These will be investigated through discussions with landowners as part of the level 2 soil assessment. Management of soil and water impacts during construction would be addressed in a Construction Management Plan.

Although the proposed development is not situated on land identified as flood prone, the site contains several small waterbodies together with a number of streams – refer **Figure 6** and **Figure 7**. A hydraulic analysis would be completed to ensure that impacts to exiting watercourses are manageable and to confirm any potential for flood inundation over the land.

Where works are proposed in or near waterfront land, either impacts would be avoided through providing adequate buffers, or works would be designed and constructed to ensure compliance with relevant Natural Resource Access Regulator guidelines for works within or near waterfront land. If required, a riparian vegetation management plan would be prepared.

7. REFERENCES

Table 19 – References

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APPENDIX A

SCOPING REPORT SUMMARY TABLE

Level of Assessment	Matter	CIA	Engagement	Relevant Government Plans, Policies and Guidelines	Scoping Report Reference
Detailed	Social Impact	Y	Specific	Social Impact Assessment Guidelines for State Significant Projects (Department of Planning Industry and Environment, 2021) Environmental Planning and Impact Assessment Practice Note: Socio-economic Assessment (Roads and Maritime Services, 2013).	6.11
Standard	Land Use	N	Specific	Surface Development Guideline 5 – Active Mining Areas – Moderate Predicted Subsidence Impact (Subsidence Advisory NSW, 2018) Development Application – Merit Assessment Policy (Subsidence Advisory NSW, 2018) Department of Industry's *Land Use Conflict Risk Assessment Guide*	6.10
Standard	Heritage	N	Specific	NSW Skeletal Remains: Guidelines for Management of Human Remains (Heritage Office, 1998) Criteria for the Assessment of Excavation Directors (NSW Heritage Council, 2011).	6.9
Standard	Hydrogeology	Y	Specific	Acid Sulphate Soils Assessment Guidelines (Department of Planning, 2008) Managing Land Contamination: Planning Guidelines SEPP 55 – Remediation of Land (Department of Urban Affairs and Planning and Environment Protection Authority, 1998) 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) Approved Methods for the Sampling and Analysis of Water Pollutants in NSW (Department of Environment and Climate Change, 2008) Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZECC / ARMCANZ, 2000) Using the ANZECC Guidelines and Water Quality Objectives in NSW (Department of Environment and Conservation, 2006)	6.12

				Managing Urban Stormwater: Soils and Construction Volume 1 (Landcom 2004) and Volume 2 (A. Installation of Services; B. Waste Landfills; C. Unsealed Roads; D. Main Roads; E. Mines and Quarries) (DECC 2008) NSW Government's Floodplain Development Manual (2005)	
Standard	Biodiversity	Y	Specific	Refer to **Section 6.5** of the Scoping Report.	6.5
Standard	Bushfire	N	Specific	Planning for Bushfire Protection 2019	6.8.2
Standard	Access and Traffic	Y	Specific	Guide to Traffic Management – Part 3 Traffic Studies and Analysis (Austroads, 2013) Guide to Traffic Generating Developments Version 2.2 (RTA, 2002)	6.2
Standard	Visual Impact	Y	General	Refer to **Section 6.4.1** of the Scoping Report.	6.4.1
Standard	Noise and Vibration	Y	General	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) Technical Basis for Guidelines to Minimise Annoyance due to Blasting Overpressure and Ground Vibration (Australian and New Zealand Environment Council, 1990).	6.4.2
Standard	Air Quality	Y	General	The Approved Methods for the Modelling and Assessment of Air Pollutants in NSW (EPA 2016) NSW's Sustainable Design Guidelines (Version 3.0) (Transport for NSW, 2013)	6.3

				Greenhouse Gas Inventory Guide for Construction Projects (Transport for NSW, 2012).	
Standard	Waste	N	General	Waste Classification Guidelines (DECCW, 2009)	6.8.3
Standard	Hazard	N	General	Hazardous and Offensive Development Application Guidelines: Applying SEPP 33 (DoP 2011) International Standard (ISO / IEC 31010) Risk Management – Risk Assessment Technique Australian Code for the Transport of Dangerous Goods by Road and Rail (7th edition) (National Transport Commission, 2007) Storage and Handling of Dangerous Goods Code of Practice (WorkCover, 2005).	6.8

APPENDIX B

THREATENED SPECIES LIST

Table 20 – Threatened species with potential to be present on site

Type	Scientific name	Common name	NSW BioNet	PMST	NSW Status	Common-wealth Status	Habitat suitability assessment
Bird	*Anthochaera phrygia*	Regent Honeyeater	Recorded	Known	CE	CE	The Threatened Biodiversity Data Collection (TBDC) refers to an important habitat map (Biodiversity Assessment Method (BAM) section 5.1.3) (DPE, 2022a) for this species which identifies habitat used by the species during annual movements .The subject site is not within the important mapped area for the species (DPE, 2022b).
Bird	*Artamus cyanopterus cyanopterus*	Dusky Woodswallow	Recorded		V	-	Has been recorded utilising open farmland at the edge of woodland or forest (DPE, 2022a). May be a foraging visitor to the northern site.
Bird	*Botaurus poiciloptilus*	Australasian Bittern		Known	E	E	Usually found in permanent wetland habitat with tall emergent or fringing vegetation (DPE, 2022a). Wetlands on the site are ephemeral and not likely to support the species.
Bird	*Calidris ferruginea*	Curlew Sandpiper		Likely	E	CE	Requires mudflats and shallow water for foraging during its annual migration (DPE, 2022a), which are present on the southern site.
Bird	*Callocephalon fimbriatum*	Gang-gang Cockatoo		Known	V	E	Gang-gang Cockatoos require tree hollows with specific dimensions for nesting (hollow of >7cm diameter and >3m above the ground) (DPE, 2022a). A suitable nesting tree is present on the western edge of the northern site.
Bird	*Calyptorhynchus lathami*	South-eastern Glossy Black-Cockatoo		Known	V	V	Glossy Black Cockatoos require tree hollows with specific dimensions for nesting (15cm diameter and >8m above the ground) (DPE, 2022a). One suitable nesting tree is present on the subject site.

Type	Scientific name	Common name	NSW BioNet	PMST	NSW Status	Common-wealth Status	Habitat suitability assessment
Bird	*Ephippiorhynchus asiaticus*	Black-necked Stork	Recorded		E	-	This species mainly inhabits floodplain wetlands of major coastal rivers (NSW DPE, 2022a) and nests in large nests in tall trees in proximity to water. Suitable nesting trees are not present on the subject site, but the species could utilise tall pine trees on the fringes of the southern site and forage within the wet areas.
Bird	*Falco hypoleucos*	Grey Falcon		Likely	E	V	The Grey Falcon nests in tall living eucalypts near water predominantly in arid and semi-arid regions (DPE, 2022a). Breeding on the site is unlikely however the species may be a foraging visitor –exotic and planted native trees in proximity to the subject site may be used for temporary roosting and perching.
Bird	*Grantiella picta*	Painted Honeyeater		May	V	V	This species requires mistletoe at a density of 5 per hectare (DPE, 2022a) which is not present on the subject site.
Bird	*Haliaeetus leucogaster*	White-bellied Sea-Eagle	Recorded		V	-	The White-bellied Sea-Eagle requires tall trees within proximity to large areas of open water (DPE, 2022a). Wetland habitat on the southern site is ephemeral and not likely to support the species.
Bird	*Hirundapus caudacutus*	White-throated Needletail	Recorded	Known	-	V	Migratory species which breeds in Asia (DPE,2022a). The species is mostly aerial and may forage over the subject site.
Bird	*Lathamus discolor*	Swift Parrot	Recorded	Likely	E	CE	The Threatened Biodiversity Data Collection (TBDC) refers to an important habitat map (Biodiversity Assessment Method (BAM) section 5.1.3) (DPE, 2022a) for this species which identifies habitat used by the species during annual movements . The subject site is not within the important mapped area for the species (DPE, 2022b).

Type	Scientific name	Common name	NSW BioNet	PMST	NSW Status	Common-wealth Status	Habitat suitability assessment
Bird	*Lophoictinia isura*	Square-tailed Kite	Recorded		V	-	Inhabits timbered watercourses and forages in tree canopy (DPE, 2022a). No suitable habitat is present on the subject site.
Bird	*Numenius madagascariensis*	Eastern Curlew		Likely	-	CE	The Threatened Biodiversity Data Collection (TBDC) refers to an important habitat map (Biodiversity Assessment Method (BAM) section 5.1.3) (DPE, 2022a) for this species which identifies habitat used by the species during annual movements . The subject site is not within the important mapped area for the species (DPE, 2022b).
Bird	*Polytelis swainsonii*	Superb Parrot		Known	V	V	Superb Parrots breed in hollows of *Eucalyptus albens*, E. blakelyi, *E. melliodora*, *E. bridgesiana* and *E. polyanthemos* with a diameter of 6cm at least 3.5 metres above the ground (DPE, 2022a). Suitable nesting trees are present in trees on the edge of the northern site.
Bird	*Pycnoptilus floccosus*	Pilotbird		May	-	V	A terrestrial species which inhabits dense forests with heavy undergrowth (Higgins & Peter 2002). Suitable dense forest habitat is not present.
Bird	*Rostratula australis*	Australian Painted Snipe		Likely	E	E	Australian Painted Snipe occurs across the Murray Darling Basin with scattered records in northern Australia (DPE, 2022a). Species inhabits freshwater swamps and marshes with a cover of grasses, lignum, low scrub and open timber (Blakers et al., 1984). Foraging occurs on mud-flats and in shallow water, while nesting occurs among tall vegetation. Potentially suitable habitat occurs on the southern site.
Bird	*Stagonopleura guttata*	Diamond Firetail	Recorded		V	-	Favours open grassy woodlands with a native understorey (DPE, 2022a). Species has also been recorded in riparian

Type	Scientific name	Common name	NSW BioNet	PMST	NSW Status	Common-wealth Status	Habitat suitability assessment
							areas (rivers and creeks) and in lightly wooded farmland. Habitat on the subject land is not suitable for the species.
Frog	*Litoria aurea*	Green and Golden Bell Frog		May	E	V	The Green and Golden Bell Frog is found in dams and small streams with fringing vegetation or grassy areas nearby (DPE, 2022a). Suitable habitat may be present on the southern site along Saltpetre Creek.
Frog	*Litoria castanea*	Yellow-spotted Tree Frog,		Likely	CE	E	Inhabits slow flowing or stagnant water including dams and 'chain of ponds' streams with emergent vegetation (DPE, 2022a). Potential habitat occurs along Saltpetre Creek and within the unnamed drainage line/dams which run through the northern site.
Insect	*Keyacris scurra*	Key's Matchstick Grasshopper	Recorded	Known		E	Key's Matchstick Grasshopper is found in a range of habitats with tussock grasses for cover (DPE, 2022a). Large tussock grasses occur over part of the southern site and the species may be present.
Insect	*Synemon plana*	Golden Sun Moth		Likely		V	Associated with Wallaby Grass, Chilean Needle Grass and *Austrostipa* species and requires ample inter-tussock spaces (DPE, 2022a). No suitable habitat is present.
Mammal	*Chalinolobus dwyeri*	Large-eared Pied Bat, Large Pied Bat		Likely	V	V	Species roosts in caves, mine tunnels and the abandoned nests of Fairy Martins, and forages over areas of continuous forest habitat (DPE, 2022a). The subject site is not within range of suitable cave habitat and does not have continuous forest habitat.
Mammal	*Dasyurus maculatus maculatus (SE mainland population)*	Spotted-tail Quoll (southeastern mainland population)	Recorded	Known	V	E	Recorded across a range of habitat types and use hollow-bearing trees, fallen logs and other animal burrows as den sites (DPE, 2022a). May utilise woodland areas to the west of the northern site

Type	Scientific name	Common name	NSW BioNet	PMST	NSW Status	Common-wealth Status	Habitat suitability assessment
Mammal	*Falsistrellus tasmaniensis*	Eastern False Pipistrelle	Recorded		V	-	Roosts in eucalypt hollows and forages in forest habitat (DPE, 2022a). Potentially suitable roosting hollows are present in trees on edge of the northern site and the species may forage within woodland to west of the northern site but not on the subject site.
Mammal	*Miniopterus orianae oceanensis*	Large Bent-winged Bat	Recorded		V	-	Requires caves, tunnels or large structures for roosting and breeding (DPE, 2022a). No suitable habitat on the subject site.
Mammal	*Petauroides volans*	Greater Glider	Recorded	Known	V	E	Species is found in taller, montane, moist eucalypt forests with relatively old trees and abundant hollows (DCCEEW, 2022). No suitable habitat is present on the subject site.
Mammal	*Petaurus australis*	Yellow-bellied Glider (south-eastern)	Recorded	Known	V	V	Species is found in tall mature eucalypt forest (DPE, 2022a). No suitable habitat is present on the subject site.
Mammal	*Petrogale penicillata*	Brush-tailed Rock-wallaby		Likely	E	V	Inhabits rocky escarpments, outcrops and cliffs (DPE, 2022a). No suitable habitat is present on the subject site.
Mammal	*Phascolarctos cinereus (combined populations of Qld, NSW and the ACT)*	Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory)	Recorded	Known	E	E	Koalas utilise a range of eucalypt species as feed trees, including *Eucalyptus blakelyi, E. melliodora* and *E. viminalis*. (DPIE, 2018). These are all present on the western side of the northern site as paddock trees and are connected to open woodland to the west. Trees on the northern site present potential Koala habitat on the edge of this habitat.
Mammal	*Pseudomys novaehollandiae*	New Holland Mouse, Pookila	Recorded	Known	P	V	The New Holland Mouse inhabits open heathlands, woodlands and forests, living predominantly in burrows (DPE, 2022a). Suitable habitat is not present on the subject site.

Type	Scientific name	Common name	NSW BioNet	PMST	NSW Status	Common-wealth Status	Habitat suitability assessment
Mammal	*Pteropus poliocephalus*	Grey-headed Flying-fox	Recorded	Known	V	V	Grey-headed Flying Foxes have high site-fidelity to their breeding camps, which are usually located in large trees within proximity to water and to food sources including flowering eucalyptus (DPE, 2022a). The subject site does not host a breeding camp but planted eucalypts within the southern site and remnant trees on the northern site may be used as forage by the species.
Plant	*Acacia bynoeana*	Bynoe's Wattle		May	E	V	No remnant shrubs are present on the subject site.
Plant	*Ammobium craspedioides*	Yass Daisy		May	V	V	Yass Daisy is found in native Box-Gum woodland and derived grassland (DPE, 2022a). The species tolerates light grazing however all land on the subject site is extensively modified through cropping, pasture modification and intensive grazing. This species is considered highly unlikely to persist on the subject site if it once occurred.
Plant	*Amphibromus fluitans*	River Swamp Wallaby-grass		May	V	V	Grows in permanent swamps along muddy margins (DPE, 2022a). Could potentially be present in wet area habitat in southern site.
Plant	*Bossiaea oligosperma*	Few-seeded Bossiaea		Likely	V	V	No remnant shrubs are present on the subject site.
Plant	*Caladenia tesselata*	Thick-lipped Spider-orchid		May	E	V	Habitat for this species includes grassy sclerophyll woodland on clay loam or sandy soils (DPE, 2022a). The site does not retain remnant woodland and is too disturbed by grazing, pasture modification and cropping to provide suitable habitat.
Plant	*Calotis glandulosa*	Mauve Burr-daisy		May	V	V	A small forb which is found in subalpine grassland dominated by *Poa* spp. and montane or natural temperate grassland dominated by Kangaroo Grass (*Themeda*

Type	Scientific name	Common name	NSW BioNet	PMST	NSW Status	Common-wealth Status	Habitat suitability assessment
							triandra) and Snow Gum (*Eucalyptus pauciflora*). The species does not persist in heavily grazed pastures. Heavy grazing, cropping and pasture modification on the subject site precludes the presence of this species.
Plant	*Commersonia prostrata*	Dwarf Kerrawang		Known	E	E	Requires open ground in sandy to peaty soils within native forest and heathland habitat (DPE, 2022a). The species will not occur in cropped areas or within sown pastures and is therefore unlikely to be present on the subject site which has been extensively modified.
Plant	*Diuris aequalis*	Buttercup Doubletail		Known	E	E	Recorded in forest, low open woodland with grassy understorey and secondary grassland on the higher parts of the Southern and Central Tablelands (DPE, 2022a). Does not persist where it is grazed and is unlikely to be present on the site.
Plant	*Dodonaea procumbens*	Trailing Hop-bush		Known	V	V	No remnant shrubs are present on the subject site.
Plant	*Eucalyptus aggregata*	Black Gum		Known	V	V	A low tree which is found in frost hollows and drainage areas at high elevations in the Central and Southern Tablelands (DPE, 2022a). Was not found on the site during survey.
Plant	*Haloragis exalata* subsp.*exalata*	Wingless Raspwort		May	V	V	Found on creek banks within protected and shaded damp situations (DPE, 2022a). May still occur along Saltpetre Creek.
Plant	*Lepidium aschersonii*	Spiny Pepper-cress		May	V	V	Found on ridges of gilgai clays dominated by Brigalow (*Acacia harpophylla*), Belah (*Casuarina cristata*), Buloke (*Allocasuarina luehmanii*) and Grey Box (*Eucalyptus*

Type	Scientific name	Common name	NSW BioNet	PMST	NSW Status	Common-wealth Status	Habitat suitability assessment
							microcarpa) (DPE, 2022a). The subject site does not contain suitable soils or associated vegetation.
Plant	*Lepidium hyssopifolium*	Basalt Pepper-cress		Likely	E	E	In NSW, Basalt Pepper-cress is only known to occur from near Bathurst and Bungendore (DCCEEW, 2022). Suitable habitat is grassy woodland and grasslands on open, bare ground with limited competition from other plants. Groundcover on the site consists of dense exotic grass cover and crops, with the only open ground on waterlogged areas in proximity to Saltpetre Creek in the southern site. These areas may require survey.
Plant	*Leucochrysum albicans* subsp. *tricolor*	Hoary Sunray	Recorded	Known	E	E	Occurs in grassland and woodland habitats on heavy soils and requires bare ground for germination. The subject site is highly modified and does not contain sufficient areas of bare ground other than waterlogged areas around Saltpetre Creek in the southern site. These areas may require survey.
Plant	*Pelargonium* sp. *Striatellum* (G.W.Carr 10345)	Omeo Stork's-bill		Known	E	E	Occurs just above the waterline of irregularly inundated and ephemeral lakes (DPE, 2022a). The southern site may provide suitable habitat along the edge of the waterlogged area.
Plant	*Pomaderris cotoneaster*	Cotoneaster Pomaderris		May	E	CE	No remnant shrubs are present on the subject site.
Plant	*Pomaderris delicata*			Known	CE	CE	No remnant shrubs are present on the subject site.
Plant	*Pomaderris pallida*	Pale Pomaderris		Likely	V	V	No remnant shrubs are present on the subject site.
Plant	*Prasophyllum petilum*	Tarengo Leek Orchid		May	E	E	Occurs in sites with Natural Temperate Grassland and grassy woodland (DPE, 2022a). This species does not

Type	Scientific name	Common name	NSW BioNet	PMST	NSW Status	Common-wealth Status	Habitat suitability assessment
							tolerate grazing which precludes its presence on the subject site.
Plant	*Rhizanthella slateri*	Eastern Underground Orchid		May	V	E	Occurs in sclerophyll forest (DPE, 2022a). Suitable habitat does not occur on the subject site.
Plant	*Rutidosis leptorhynchoides*	Button Wrinklewort	Recorded	Known	E	E	Occurs in native grassland and woodland and is not retained in sites where grazing occurs (DPE, 2022a). The grazing and cropping history of the subject site precludes the presence of this species.
Plant	*Senecio macrocarpus*	Large-fruit Fireweed		May	-	V	Found in partly cleared dry forests and box-gum woodlands with relatively undisturbed understorey of native grasses, forbs and subshrubs (DCCEEW, 2022). Highly susceptible to grazing, particularly by sheep and would not persist at the site.
Plant	*Swainsona recta*	Small Purple-pea		May	E	E	Historically associated with Box Gum woodlands and open forest (DPE, 2022a). Does not persist in areas where it is competing with large exotic grasses and is subject to grazing.
Plant	*Thesium australe*	Austral Toadflax		Likely	V	V	*Thesium australe* is a root parasite associated with the native grass *Themeda triandra*. This grass is not present on the site and the species is therefore highly unlikely to occur.
Reptile	*Aprasia parapulchella*	Pink-tailed Legless Lizard		Likely	V	V	The Pink-tailed Legless Lizard inhabits sloping, open woodland areas with predominantly native grassy ground layers dominated by Kangaroo Grass (*Themeda triandra*). Sites are typically well-drained, with rocky outcrops or scattered, partially-buried rocks (DPE 2022a). Suitable rocky

Type	Scientific name	Common name	NSW BioNet	PMST	NSW Status	Common-wealth Status	Habitat suitability assessment
							habitat and native grass cover is not present on the subject site.
Reptile	*Delma impar*	Striped Legless Lizard	Recorded	Likely	V	V	Found mainly on the Southern Tablelands and South West Slopes in Natural Temperate Grassland and occasionally in open Box-Gum Woodland. Preferred grasslands are dominated by perennial, tussock-forming grasses including Kangaroo Grass (*Themeda triandra*), spear-grasses (*Austrostipa* spp.) and Poa (*Poa* spp.), however species is also associated with Phalaris (*Phalaris aquatica*) in grasslands adjoining woodlands or areas where open woodlands have been cleared for agriculture (DPE, 2022a). Paddocks on the southern site contain *Phalaris aquatica* and other large tussock grass species which may be suitable habitat. Has been recorded at the Goulburn airport nearby.
Fish	*Maccullochella peelii*	Murray Cod		May	-	V	These fish species occur in large permanent rivers with deep waterholes (DCCEEW, 2022). Saltpetre Creek is not sufficiently permanent to support these species on the subject site.
Fish	*Macquaria australasica*	Macquarie Perch		Known	E**	E	

** Protected under the NSW Fisheries Management Act 1994

APPENDIX C

PROTECTED MATTERS SEARCH TOOL (PMST) RESULTS

APPENDIX D

TRANSGRID CONSULTATION

APPENDIX E

SOCIAL IMPACT ASSESSMENT

APPENDIX F

VISUAL ASSESSMENT MEMO

APPENDIX G

PROJECT NEWSLETTER

APPENDIX H

TRANSPORT FOR NSW COMMENTS

Premise