Premise

Scoping Report

MARULAN SOLAR FARM

Report No: 221106/REP
Rev: 001E
21 January 2021

Document reference: O:\Synergy\Projects\221\221106\Out\Reports\221106_REP_001E_Marulan.docx

DOCUMENT AUTHORISATION					
Revision	**Revision Date**	**Report Details**			
A	18/11/20	Draft for client review			
B	23/12/20	Updated draft			
C	08/1/21	For issue			
D	14/1/21	Final			
E	21/1/21	Incorporating DPIE comments			
Prepared By		**Reviewed By**		**Authorised By**	
Sam Burns		David Walker		David Walker	

CONTENTS

FIGURES

TABLES

APPENDICES

1. INTRODUCTION

Terrain Solar is proposing to develop an approximately 150 megawatt (MW) solar farm, plus an optional battery energy storage system with a potential capacity of up to 100 MWhours, although noting a likely capacity of closer to 40 MWhours, on land approximately 5 kilometres (km) west of the NSW town of Marulan, NSW The development would be known as the Marulan Solar Farm (MSF).

This scoping report has been prepared to support a request to Department Planning, Industry and Environment (DPIE) for the Secretary's Environmental Assessment Requirements (SEARs). These will inform the preparation of an Environmental Impact Statement (EIS) in support of a state significant development application submitted under Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

This report has been prepared by reference to the *Scoping an Environmental Impact Statement: Draft Environmental Impact Assessment Guidance Series June 2017.*

The report is structured as follows:

- **Section 2** provides details of the site and context
- **Section 3** provides details of the proposed development
- **Section 4** provides the strategic framework
- **Section 5** provides a summary of impacts
- **Section 6** provides a project justification;
- **Section 7** provides details of proposed consultation; and
- **Section 8** provides a summary of the estimated capital investment value.

2. SITE DETAILS

2.1 Location and regional context

The proposed solar farm development site is proposed to be located on land at 740 Carrick Road, Carrick (also known as Lot 55 DP1141136). Lot 55 (hereafter referred to as the Host Lot) is part of a larger landholding in single ownership.

The site is located to the west of the town of Marulan and within the Goulburn Mulwaree Local Government Area (LGA). The Main Southern Railway is located to the north of the site.

Transmission line easements intersect the site, connecting with a substation located approximately 1.3 kms to the east of the site.

The development site is accessible via Carrick Road to the north-east and there is the potential for access to also be provided via Rampion Hills Road, Munro Road and Jerrara Road, all four of which link to the Hume Highway in the south. The number of non associated land owners on Rampion Hills Road suggests that this may not be a suitable access option.

It is noted that there are two small airstrips located within the proximity of the site. One is located to the north, adjacent to Carrick Road, and is operated by the Southern Tablelands Gliding Club. Consultation will be undertaking with Club as part of the community engagement during preparation of the EIS. The other is situated adjacent to the Hume Highway to the south of the site and is privately owned. Again, consultation will be undertaking with the owner of this airstrip as part of the community engagement during preparation of the EIS.

To the west and north-west of the host lot are Holcim and Gunlake Quarries, which supply sand and aggregates to the construction industry.

The site in a regional context is reflected in **Figure 1** and the immediate site locality in **Figure 2**.

Figure 1 – Regional Context

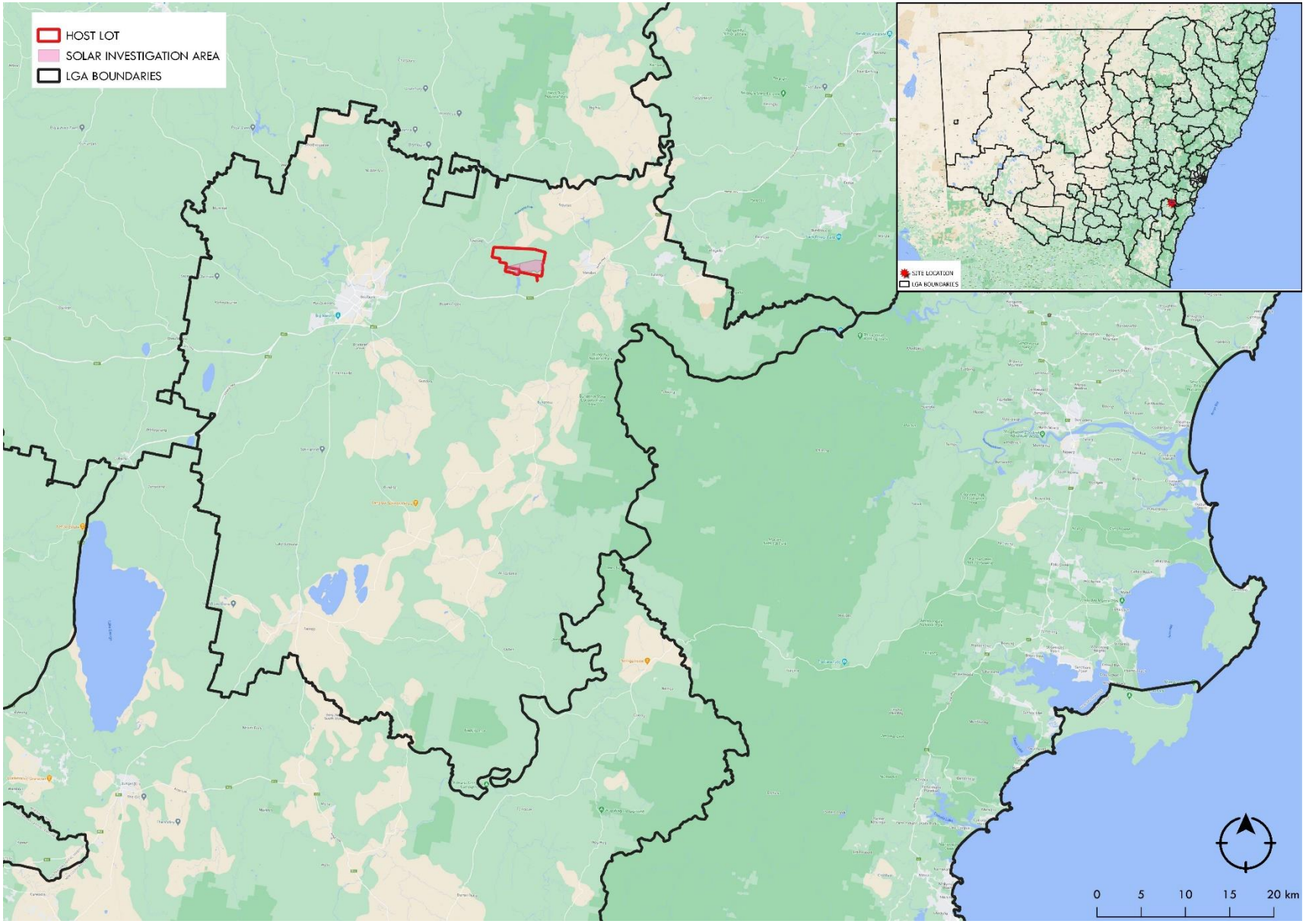
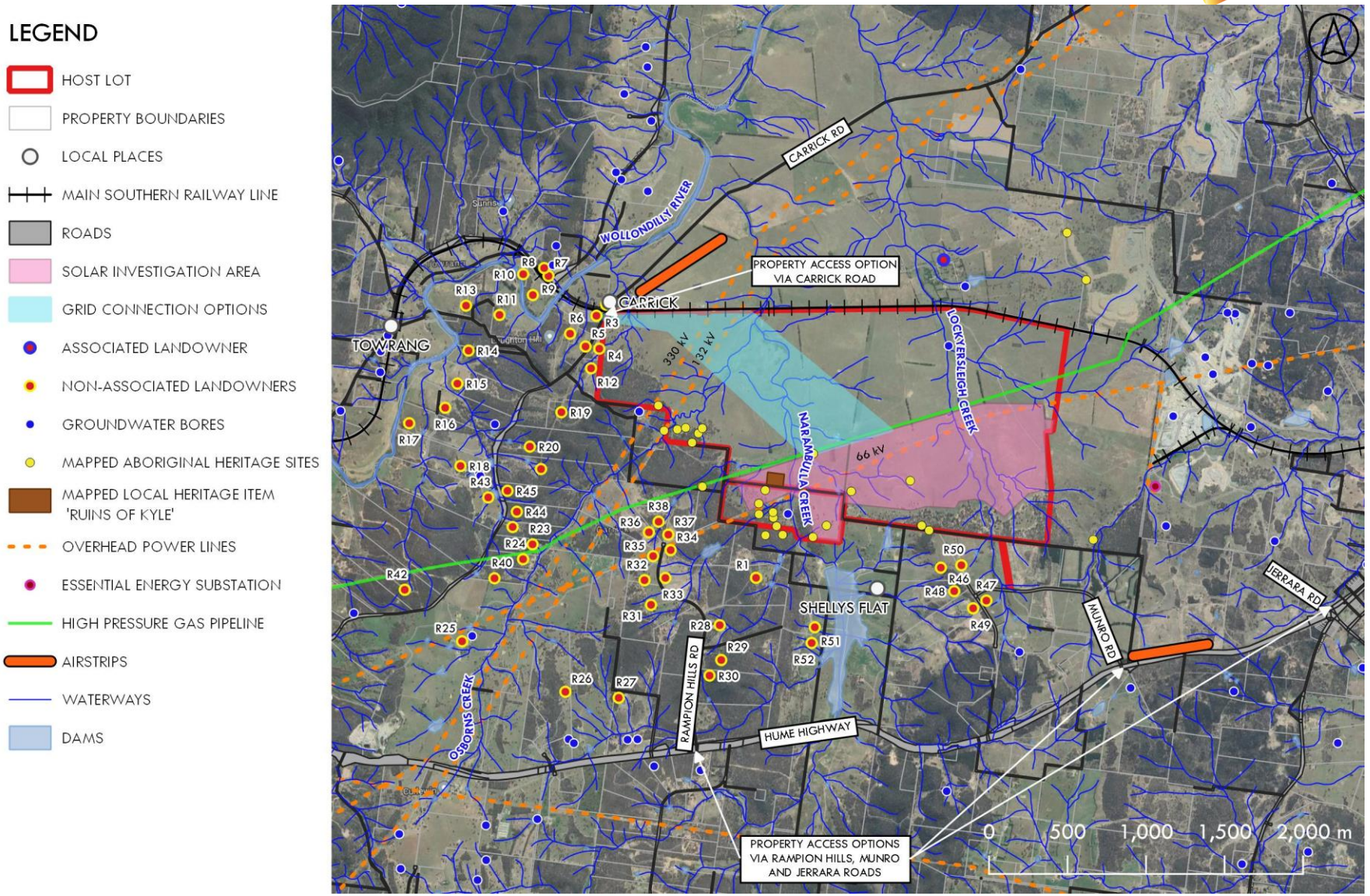


Figure 2 – Proposed Development Site



2.2 Site Description

The host lot consists of generally cleared, fenced paddocks, currently in use for grazing purposes. The solar investigation area features patches of vegetation in the southern extents and several isolated stands of trees.

Carrick Road, a local road connecting to the Hume Highway in the South and Brayton Road in the north, passes the subject site at the north-western extent. The Main Southern Railway bounds the site to the north.

The site is undulating with numerous watercourses acting as the low points throughout the site. The site rises to a high point of 680 metres Average Height Datum (AHD) in the south-west and falls to a low of 617 m AHD toward the centre of the site, along the alignment of Narambulla Creek.

The site features 22 small farm dams and a number of named and unnamed waterways located onsite. The most notable of which are Lockyersleigh Creek (4th order stream), Osborns Creek (4th order stream), and Narambulla Creek (4th order stream). These creeks drain generally northward towards the Wollondilly River.

Two 330 kV and one 132kV powerlines run to the west and north of the site, while 66 kV powerline run in an east – west alignment, through the site. A high pressure gas pipeline is located within the subject site and to the north of the solar investigation area – **Figure 2**.

2.3 Surrounding development

2.3.1 LAND USE

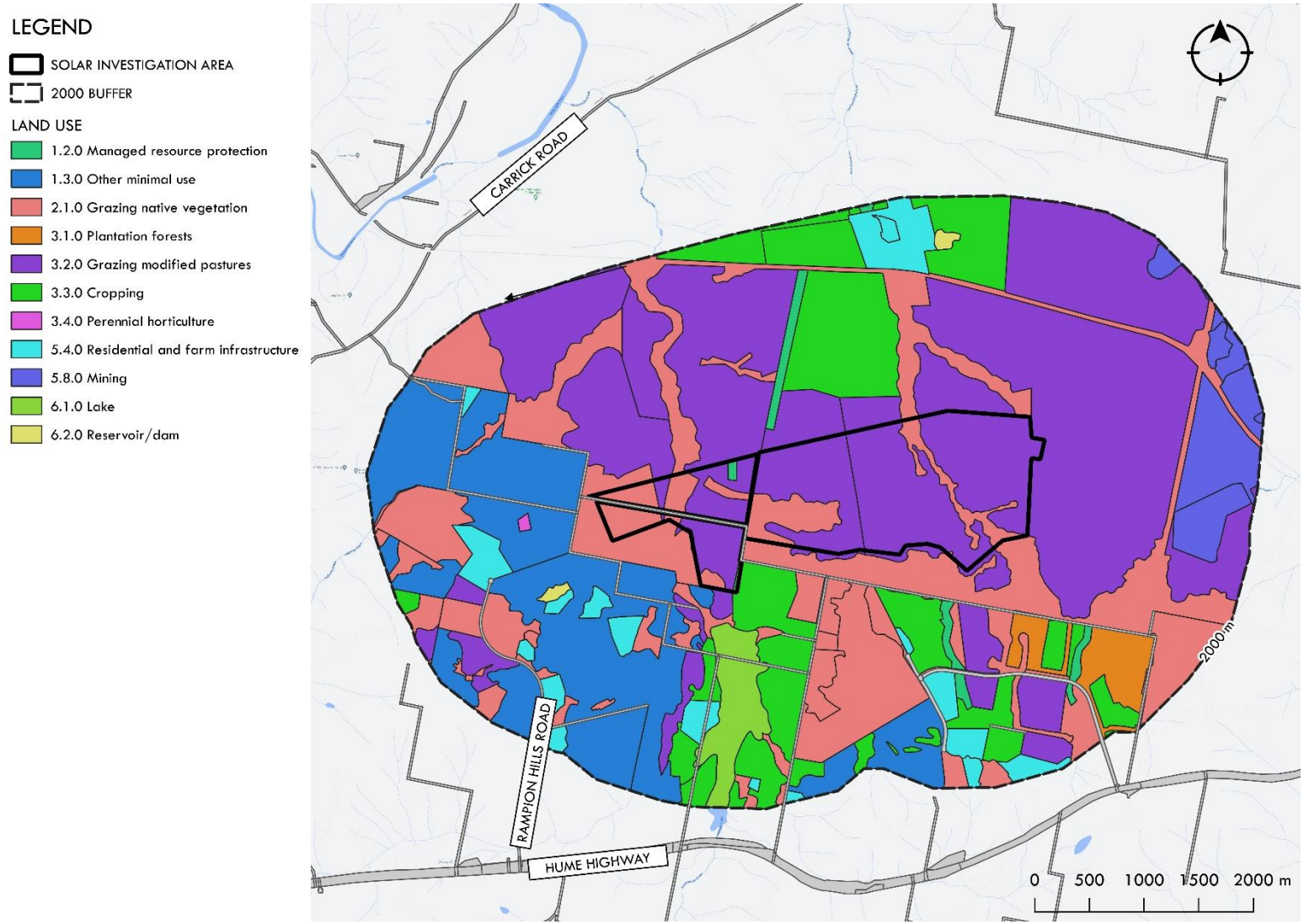
The host lot mostly consists of cleared land with some patches of vegetation and isolated trees. The host lot is currently used for agricultural purposes, including cropping and grazing.

A breakdown of land use within a 2 km radius is provided in **Table 1** and depicted in **Figure 3**.

Table 1 – Summary of land use within 2 km of the site

Land Use	Area (ha)	%
1.2.0 Managed resource protection	27.77	1%
1.3.0 Other minimal use	521.15	14%
2.1.0 Grazing native vegetation	851.49	23%
3.1.0 Plantation forests	58.47	2%
3.2.0 Grazing modified pastures	1419.66	39%
3.3.0 Cropping	430.39	12%
3.4.0 Perennial horticulture	1.37	0%
5.4.0 Residential and farm infrastructure	136.16	4%
5.8.0 Mining	115.58	3%
6.1.0 Lake	57.76	2%
6.2.0 Reservoir/dam	5.79	0%
TOTAL	3,625.59	100%

Figure 3 – Land Use within 2 km radius



2.3.2 POTENTIALLY AFFECTED RECEIVERS

The proposed solar farm is located on land directly adjacent to the Main Southern Railway and on land to the east of the village of Towrang.

Within a 2 km distance of the proposed solar farm there is one associated land owner and 18 non-associated residential receivers. Non-associated land owners are all located to the south and west of the site. Within 4 km, there are a further 29 non-associated receivers – refer **Figure 2**.

The topography of the land provides an excellent visual and aural separation between the proposed footprint and receivers to the south and west

The closest non associated receivers to the project footprint are R46 and R50 located approximately 780 m to the south. There is significant vegetation both on and off the site between the solar investigation area and R46 and R50, and other non-associated land owners to the south and south-west, that provide excellent visual shielding.

The EIS would provide a visual assessment of the potential impacts of the solar farm. Given the prevailing topography, this is expected to be limited.

2.3.3 KEY INFRASTRUCTURE

The development site is bounded by the Main Southern Railway in the north.

Two 330 kV and a 132 kV powerline run to the west and north of the site, while a 66 kV powerline runs in an east – west alignment, through the site - as shown in **Figure 2**. A high pressure gas pipeline is located within the subject site and to the north of the solar investigation area – **Figure 2**.

The Hume Highway is located to the south of the site. A number of roads connect (or have the potential to connect) the host lot with the Hume Highway including Carrick Road in the south-west, Rampion Hills and Munro Roads in the south and Jerrara Road in the south-east. Options exist to use one of these roads to provide access for construction traffic. A traffic study would be prepared to support the EIS which would provide considered analysis of the most appropriate access location, together with an assessment of impacts associated with construction traffic usage.

2.4 Environmental Features

2.4.1 TOPOGRAPHY

The site is undulating and is currently in use for predominantly grazing, and some cropping, purposes – refer **Figure 3**. The site does not slope towards a single direction. Low peaks, shallow gullies and creeks are scattered throughout the site, generally coinciding with the mapped waterways.

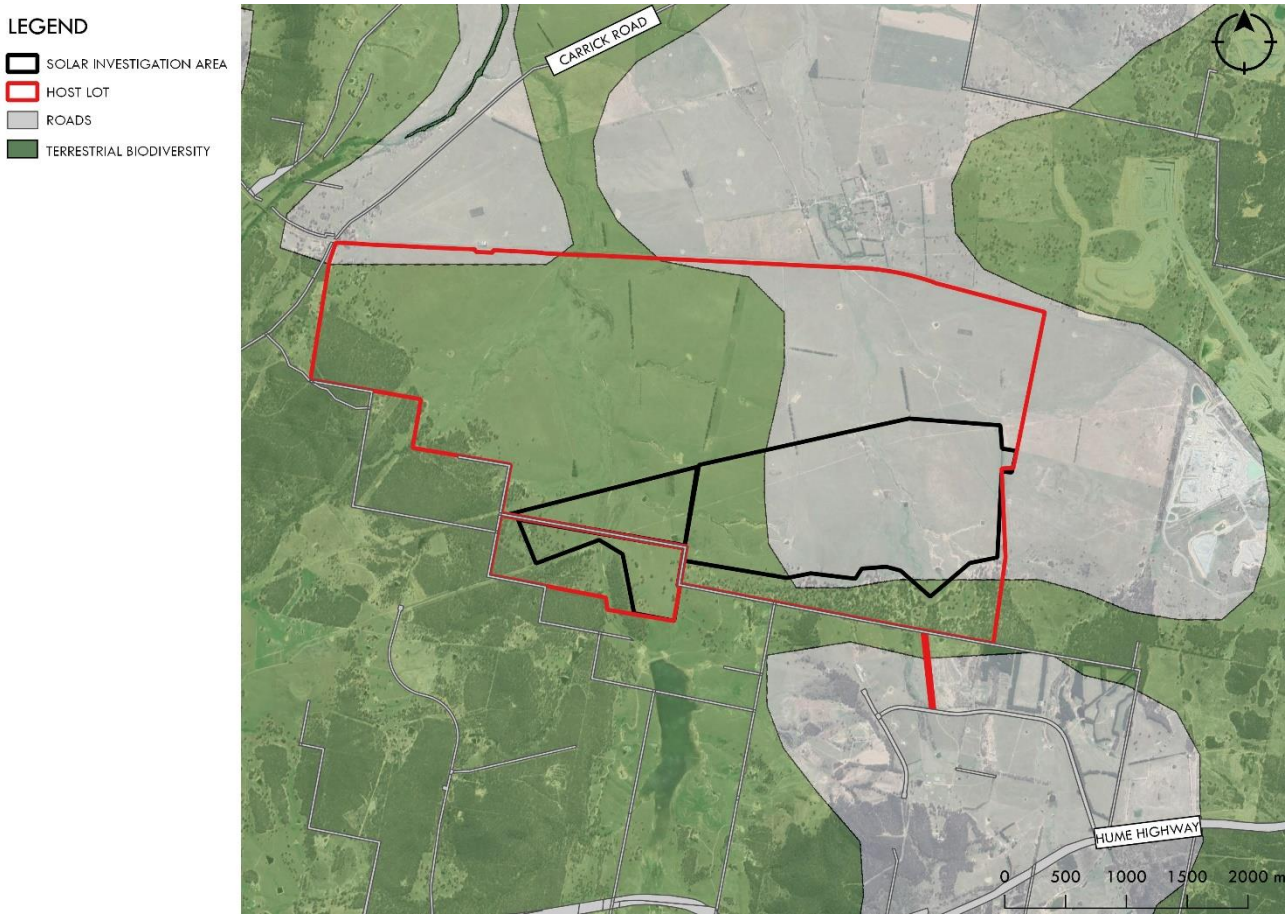
2.4.2 VEGETATION

The approximately 375.5 ha development site mostly consists of cleared land with some patches of vegetation in the southern extents of the site and several isolated stands of trees throughout the site. The site does not contain extensive connective stands of remnant native vegetation. A buffer would be provided to vegetation to the south to ensure impacts can minimised. No clearing of this vegetation is proposed or expected.

It is noted that approximately 50% of the development site (western extent) is located within areas mapped as terrestrial biodiversity in the Goulburn Mulwaree LEP (refer and the site is noted as containing mapped

bushfire prone land (Vegetation Category 1, Vegetation Category 3). Refer further discussion in **Section 5.2.2**.

Figure 4 – Sensitive Biodiversity



2.4.3 WATER

2.4.3.1 Surface water

The site is identified as being traversed by three (3) named ephemeral creeks and their respective tributaries. The mapped creeks located onsite are Lockyersleigh Creek (4th order stream), Osborns Creek (4th order stream), and Narambulla Creek (4th order stream). Osborns Creek joins Narambulla Creek and flows into the Wollondilly River. Lockyersleigh Creek flows into the Wollondilly River further north. Wollondilly River is located approximately 600m northwest of the site at its closest point.

2.4.3.2 Groundwater

A search of the Australian Groundwater Explorer has indicated that there are 3 bores located within the subject lot. Bore details are provided in **Table 2**. The average depth of the 3 bores on site is 101 m.

Table 2 – Bore Data (Australian Groundwater Explorer)

Bore ID	Bore Depth	Drilled Date	Purpose	Status	Water level
GW110239.1.1	100 m	01/01/2007	Water Supply	Unknown	False

Bore ID	Bore Depth	Drilled Date	Purpose	Status	Water level
GW111928.1.1	108 m	15/10/2012	Water Supply	Functioning	False
GW111929.1.1	96 m	15/11/2012	Water Supply	Functioning	False

2.4.3.3 Flooding

The site is not identified as being flood prone land.

3. DEVELOPMENT DESCRIPTION

3.1 Solar farm

The Marulan Solar Farm (MSF) will use solar PV panels to convert sunlight into electrical current, with grid compliant energy then delivered to the Essential Energy substation. Electricity will be sold into the National Electricity Market (NEM) and Large Generation Certificates (LGC's) will be sold to liable entities under the Renewable Energy Act 2000.

The proposed output capacity of the proposed solar farm is approximately 150 megawatts, subject to detailed design. The final capacity and footprint of the solar farm infrastructure will be refined through consideration of findings as a result of further site investigations and identification of constraints and opportunities mapped through the environmental impact assessment process. The intent, however, is to maximise the built footprint over the development site which, at this stage, includes an area of approximately 375.5 ha.

Solar PV technology will be either crystalline silicone or thin film. 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 towards the sun to maximise energy output performance.

Inverters and transformers will be located in an array within the footprint to convert the dc current to alternating current (AC). Inverter and transformer assemblies will be mounted on a steel platform or slab at ground level and generally covered. The ac collection system will consist of underground cabling at 22 kV or 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 132 kV. The site substation will be enclosed securely.

A connection from the site substation to Essential Energy's substation will be made via overhead or underground high voltage cables.

Battery storage providing a capacity of up to 100 MWhours, but likely to be closer to 40 MWhours, subject site detailed design. A decision on whether it would be installed would be made closer to the point of construction and commissioning, given the uncertainty around the cost of battery delivery. Storage would provide the capacity to deliver electricity to the transmission network on demand and more closely follow price fluctuations. This will ensure the electricity is most valuable to the market. If battery storage is included at the development site battery banks will be housed in containers or a shed. The structures will provide shelter and security and will incorporate services to control temperature etc. Concrete footings are likely to be laid to support the structures. The storage facility would be located near the site substation and will be connected via underground or overhead cables.

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. Once operational the solar farm will require minimal site based maintenance. It will be monitored remotely and only attended to rectify faults and for occasional scheduled maintenance.

Construction is estimated to take up to 18 months. The site is expected to require minimal preparation in advance of installing the PV panel system as it is flat with minor undulations and largely devoid of vegetation. A security fence will be installed on the site boundary and construction tracks will be laid down. Construction will require the use of bull dozers, water trucks, graders, flatbed trucks, skid steers, front end loaders, roller compactors, trenchers, backhoes, gravel trucks, water tankers, cranes, and aerial lifts. Deliveries of modules and other equipment will be made via heavy vehicle (b-doubles and 19 metre arrangements) on the approved route and site entrance.

3.2 Grid connection

The transmission line that will connect MSF to Essential Energy's substation would be owned by the operator of the MSF.

The Infrastructure SEPP makes development for the purpose of an electricity transmission or distribution network permissible without consent when carried out by or on behalf of an electricity supply authority or a public authority. Such development may be assessed under Part 5 of the EP&A Act. Alternatively, transmission or distribution infrastructure may be considered a component of the project and assessed as a permitted activity via the Part 4 SSD process.

An area within the subject site is currently under investigation for an appropriate above or below ground transmission line to provide a connection to the existing 132 kV transmission lines located to the north-west of the site (as per **Figure 2**) and this will be subject to detailed assessment to determine the most appropriate route.

The transmission line route is zoned RU1 – Primary Production pursuant to the *Goulburn Mulwaree Local Environmental Plan 2009* (LEP).

The proposed ETL is permissible as an ancillary component of an electricity generating works, which is permitted with consent on the RU1 zoned land – refer **Section 4**.

The environmental impacts of transmission or distribution lines required for MSF (a solar SSD project) will be considered in the assessment of the application for the development.

Consistent with DPIE's *Large Scale Solar Energy Guideline* (December 2018), Terrain Solar will provide information in the Environmental Impact Statement about the necessary transmission lines, including the proposed location, timing of decision-making, interaction with the timelines of the solar energy project and relevant stakeholders, to assist in the consideration of all aspects of the project.

4. PERMISSIBILITY AND STRATEGIC PLANNING

4.1 Strategic planning documents

4.1.1 NSW 2021 PLAN AND RENEWABLE ENERGY ACTION PLAN

The NSW 2021 plan, released in 2011, sets state-wide priorities for action and also guides resource allocation. Goal 22 of this plan seeks to protect the natural environment and includes a specific target to increase renewable energy. The plan states:

> *We will contribute to the national renewable energy target by promoting energy security through a more diverse energy mix, reducing coal dependence, increasing energy efficiency and moving to lower emission energy sources. Specific initiatives include:*
>
> - *Building the Moree solar power plant in partnership with the Commonwealth Government under the Solar Flagship Program*
> - *Establishing a Joint Industry Government Taskforce to develop a Renewable Energy Action Plan for NSW to identify opportunities for investment in renewable energy sources.*

Since release of the 2021 plan, the NSW Government has overseen the development of the NSW Renewable Energy Action Plan (REAP). The vision of the plan is a 'secure, affordable and clean future for NSW'. Goal 1 of the REAP is to attract renewable energy investment, including to 'support mid-scale solar PV to enable an uptake of solar technologies where they are most cost effective'.

The proposed MSF sits comfortably with this state led objective and is consistent with the goal and intent of the REAP.

4.1.2 SOUTH EAST AND TABLELANDS REGIONAL PLAN

The *South East and Tablelands Regional Plan 2036* (Regional Plan) is the NSW Government's strategy for guiding land use planning decisions for the South East and Tablelands Region for the next 20 years. At its heart is a core vision for the region supported by four supporting goals:

Vision*: A borderless region in Australia's most geographically diverse natural environment with the nation's capital at its heart.*

Goals:

- *A connected and prosperous economy*
- *A diverse environment interconnected by biodiversity corridors*
- *Healthy and connected communities*
- *Environmentally sustainable housing choices.*

These goals are in turn supported by a range of local directions that provide context and detail to the overarching goals.

Of particular relevance to the development of this project are the following directions, discussed in the context of the project in **Table 3**.

Table 3 – South East And Tablelands Regional Plan

Direction	Assessment
6: Position the region as a hub of renewable energy excellence	The project is directly consistent with this direction through the delivery of a renewable energy resource
8: Protect important agricultural land	The project utilises low capability land that is currently primarily used for grazing. Once the proposed solar farm is established, the ongoing grazing use of the land is not precluded.
13: Manage the ongoing use of mineral resources	The solar investigation site avoids mapped resources and lands on which mining titles or exploration titles exist.
14: Protect important environmental assets	Impacts to environmental assets would be adequately assessed within the EIS
17: Mitigate and adapt to climate change	The subject site is not mapped as affected by flooding. A bushfire assessment would be provided within the EIS. The proposed development provides alternatives to fossil fuel energy sources.
23: Protect the region's heritage	Appropriate assessment and review of potential impacts to heritage would be addressed within the EIS
26: Coordinate infrastructure and water supply in a cross-border setting	Provision of infrastructure to benefit the region would be a key outcome of the project

On the basis of the above, it is concluded that the project is generally consistent with the vision of the Regional Plan.

4.1.3 GOULBURN MULWAREE LOCAL STRATEGIC PLANNING STATEMENT

The *Goulburn Mulwaree Local Strategic Planning Statement* (LSPS) sets a vision to 2040 of:

> *We are a modern city located in a vibrant, growing rural region…*

The LSPS sets 10 planning priorities for the LGA, being:

1. Infrastructure

2. City, Town and Village Centres

3. Community Facilities, Open Space and Recreation.

4. Housing

5. Primary Industry

6. Industry and Economy

7. Sustainability

8. Natural Hazards

9. Heritage

10. Natural Environment

In the context of the project, Priority 5 (Primary Industry) seeks to promote renewable energy projects and also notes:

> *The co-location of renewable energy projects should occur where possible, in order to maximise infrastructure, including corridors with access to the electricity network'*

The LSPS notes at page 27:

> *Renewable energy and extractive industries are growing sectors in Goulburn Mulwaree, however, ideally should not compete for land identified as being of prime crop and pasture potential.*

The land selected has a predominant land capability of class 4 (moderate), with limited sections of class 5 (moderate-low) and class 6 (low). As such, the land is not considered to represent prime agricultural land. The project is therefore not inconsistent with the LSPS in this regard.

It is also note that the vision for Priority 7 (sustainability) is

> *A sustainable environment which utilises best practice to minimise waste and maximise renewables*

This project supports the delivery of a renewable energy project, which is expressly consistent with prioritises 5 and 7 of the LSPS.

4.1.4 THE TABLELANDS REGIONAL COMMUNITY STRATEGIC PLAN 2016-2036

The *Tablelands Regional Community Strategic Plan 2016-2036* (CSP) identifies the community's main priorities and aspirations for the future. It contains the vision for The Tablelands region (Yass Valley, Upper Lachlan, Goulburn Mulwaree and Canberra regions) being:

> *To build and maintain sustainable communities while retaining the region's natural beauty.*

The vision is supported by a range of strategic priorities and pillars, being:

1. Our Environment: We appreciate our range of rural landscapes and habitats, and act as custodians of the natural environment for future generations.
2. Our Economy: We have a strong regional economy experiencing sustainable growth, which provides for a diverse range of employment opportunities.
3. Our Community: We are a network of vibrant, inclusive and diverse communities that value our cooperative spirit, self-sufficiency, and rural lifestyle.
4. **Our Infrastructure: Our community is well serviced and connected to built, social and communications infrastructure.**

5. Our Civil Leadership: Our leaders operate ethically and implement good governance. We empower our residents with the tools to participate actively in the development of our communities.

The proposed MSF would assist in achieving the key strategic priorities and pillars highlighted above by diversifying Goulburn Mulwaree's economic base and infrastructure by providing a new industry, and investment in renewable energy to reduce climate change.

4.2 Environmental Planning Framework

4.2.1 COMMONWEALTH LEGISLATION

4.2.1.1 Environment Protection and Biodiversity Conservation 1999

A search of the online Protected Matters Search Tool (PMST) did not identify matters of national environmental significance or other matters protected by the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) as likely to occur at or near the area.

4.2.1.2 Native Title Act 1993

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 at or near the site.

4.2.2 NSW LEGISLATION

4.2.2.1 Environmental Planning and Assessment Act 1979

The proposed MSF would be assessed under Part 4 of the Environmental Planning and Assessment Act 1979 (EP&A Act).

4.2.2.2 Biodiversity Conservation Act 2016

The potential impacts to threatened species listed under the Biodiversity Conservation Act 2016 will be considered in the EIS.

4.2.2.3 Roads Act 1993

The development would utilise the existing local road connecting to a local road, being either Carrick Road, Munro Road, Rampion Hills Road or Jerrara Road. Therefore, consent from Transport for NSW (TfNSW) is not required under section 138 of the *Roads Act 1993*. Given the interface with Hume Highway, it is reasonable to assume that referral to TfNSW would occur.

4.2.2.4 National Parks and Wildlife Act 1974

The potential impacts to Aboriginal heritage pursuant to the *National Parks and Wildlife Act 1974* will be considered in the EIS – refer **Section 5.2.3**.

4.2.2.5 Heritage Act 1977

There are no known items of state heritage significance at or near the site. As such, no approvals under the *Heritage Act 1977* are required. An item of local heritage significance is located in the south-west corner of the site. The site is described as the 'Ruins of Kyle', and is item I032 via Schedule 5 of the LEP.

The statement of significance for the item states:

> *This site referred to as the 'Ruins of Kyle' is highly significant for its archaeological research potential. The stone building on part of the Lockyersleigh property may be associated with the earliest occupation of the area.*

Given the potential for archaeological potential, an approval under the Heritage Act may be required for the disturbance of relics.

A historic heritage assessment would be required to supplied as a component of the EIS and potentially an approval sought from Heritage NSW pursuant to Section 139 of the Heritage Act.

4.2.2.6 Water Management Act 2000

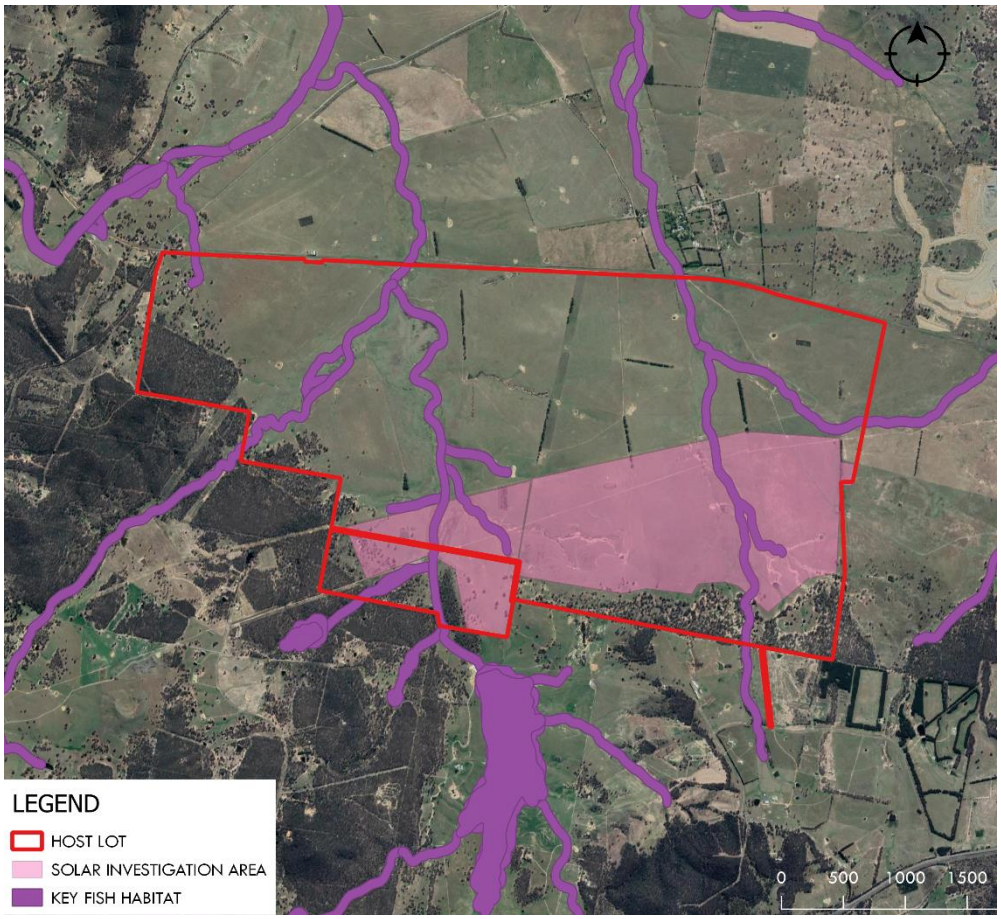
The development would potentially propose works within 40 metres of a mapped waterway, thus requiring consideration of the Natural Resource Access Regulator Guidelines for controlled activities on waterfront land (although it is noted, pursuant to Section 5.23 of the EP&A Act, that a controlled activity approval under s. 91 of the *Water Management Act 2000* (WM Act) is not required). This will be addressed in the EIS.

Pursuant to Section 5.23(1)(g) an activity approval required under the WM Act, other than an aquifer interference approval, is not required for SSD. Aquifer interference is not anticipated in relation to this site.

4.2.2.7 Fisheries Management Act 1994

The development site does contain watercourses mapped as key fish habitat as per **Figure 5**. These areas have been excluded from the solar investigation area to minimise impacts. If dredging or reclamation works are required or fish passage will be blocked in key fish habitat, a permit under the *Fisheries Management Act 1994* will be required. This will be addressed in the EIS.

Figure 5 – Key fish habitat



4.2.3 ENVIRONMENTAL PLANNING INSTRUMENTS

4.2.3.1 State Environmental Planning Policy

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

Clause 8 of the *State Environmental Planning Policy (State and Regional Development) 2011* (SRD SEPP) provides that development is declared to be State Significant Development (SSD) for the purposes of the EP&A 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.*

Clause 20 of Schedule 1 of the SRD SEPP provides:

> *Development for the purpose of electricity generating works or heat or their co-generation (using any energy source, including gas, coal, biofuel, distillate, waste, hydro, wave, solar or wind power) that—*
>
> *(a) has a capital investment value of more than $30 million, or*

(b) has a capital investment value of more than $10 million and is located in an environmentally sensitive area of State significance.

The proposed development is not located in an environmentally sensitive area of State Significance, but does have a capital investment value in excess of $30 million – refer **Section 7**.

Accordingly, the proposed solar development is declared to be SSD for the purposes of the EP&A Act.

4.2.3.1.2 State Environmental Planning Policy (Infrastructure) 2007

By virtue of Clause 34 of Division 4 of Part 3 of the *State Environmental Planning Policy (Infrastructure) 2007* (ISEPP) the development of electricity generating works are permitted on prescribed rural, industrial or special use zone. An electricity generating works is defined by the standard instrument as:

electricity generating works means a building or place used for the purpose of—

(a) making or generating electricity, or

(b) electricity storage.

The RU1 zone is a prescribed rural zone and the project entails the carrying out of electricity generating works on RU1 zone land; therefore development is permitted with consent via clause 34 of the ISEPP.

By reference to Schedule 3 or the ISEPP, the development is not a traffic generating development and therefore does not require referral to Roads and Maritime Services.

4.2.3.1.3 State Environmental Planning Policy No 55 – Remediation of Land

A review of the NSW EPA Contaminated Land Record and List of NSW contaminated sites notified to the EPA confirms there are no known contaminated sites at or near the site.

Based on the historical agricultural use of the site, it is unlikely that significant contamination exists at the site. Assessment of contamination risk will be undertaken as part of the EIS.

Construction and operation of the proposal is unlikely to pose a significant contamination risk. A CEMP would address management of contamination if identified during construction.

4.2.3.1.4 State Environmental Planning Policy (Koala Habitat Protection) 2020

State Environmental Planning Policy (Koala Habitat Protection) 2020 applies to the Goulburn Mulwaree LGA, and therefore an assessment of core koala habitat at the site is required. This would be addressed by an appropriate ecological assessment sufficient to satisfy the requirements of the *Biodiversity Conservation Act 2016*.

4.2.3.1.5 State Environmental Planning Policy (Sydney Drinking Water Catchment) 2011

The site is located within the mapped Sydney Drinking Water Catchment and therefore the *State Environmental Planning Policy (Sydney Drinking Water Catchment) 2011* (SDW_SEPP) applies. The aims of the SDW_SEPP are:

(a) to provide for healthy water catchments that will deliver high quality water while permitting development that is compatible with that goal, and

(b) to provide that a consent authority must not grant consent to a proposed development unless it is satisfied that the proposed development will have a neutral or beneficial effect on water quality, and

(c) to support the maintenance or achievement of the water quality objectives for the Sydney drinking water catchment

A Water Cycle Management Study report would be prepared to support the EIS to demonstrate a neutral or beneficial impact to water quality as a result of the project.

The Water Cycle Management Study report would be prepared in accordance with *Neutral or Beneficial Effect on Water Quality Assessment Guideline* (Sydney Catchment Authority 2015) (the NorBE Guidelines) and would provide:

- A description of proposed water sensitive design features; and
- A determination of pre and post development pollutant loads.

4.2.3.1.6 State Environmental Planning Policy No 33 – Hazardous and Offensive Development

A preliminary risk screening in accordance with State Environmental Planning Policy No. 33 – Hazardous and Offensive Development and Applying SEPP 33 (DoP, 2011) would be undertaken within the EIS. Should the preliminary risk screening determine the development as 'potentially hazardous', a Preliminary Hazard Analysis (PHA) would be undertaken in accordance with Hazard Industry Planning Advisory Paper No.6 – Guidelines for Hazardous Analysis (DoP, 2011) and Multi-Level Risk Assessment (DoP, 2011).

4.2.3.2 Local Environmental Plan

4.2.3.2.1 Goulburn Mulwaree Local Environmental Plan 2009

The aims of the Goulburn Mulwaree Local Environmental Plan 2009 (LEP) are to:

(1) This Plan aims to make local environmental planning provisions for land in Goulburn Mulwaree in accordance with the relevant standard environmental planning instrument under section 3.20 of the Act.

(2) The particular aims of this Plan are as follows—

(a) to promote and co-ordinate the orderly and economic use and development of land in the area,

(b) to provide a framework for the Council to carry out its responsibility for environmental planning provisions and facilitate the achievement of the objectives of this Plan,

(c) to encourage the sustainable management, development and conservation of natural resources,

(d) to promote the use of rural resources for agriculture and primary production and related processing service and value adding industries,

(e) to protect and conserve the environmental and cultural heritage of Goulburn Mulwaree,

(f) to enhance and provide a range of housing opportunities in, and the residential and service functions of, the main towns and villages in Goulburn Mulwaree,

(g) to establish a framework for the timing and staging of development on certain land in Goulburn and Marulan,

(h) to provide a range of housing opportunities, including large lot residential development in the vicinity of the villages,

(i) to allow development only if it occurs in a manner that minimises risks due to environmental hazards, and minimises risks to important elements of the physical environment, including water quality,

(j) to provide direction and guidance as to the manner in which growth and change are to be managed in Goulburn Mulwaree,

(k) to protect and enhance watercourses, riparian habitats, wetlands and water quality within the Goulburn Mulwaree and Sydney drinking water catchments so as to enable the achievement of the water quality objectives.

The subject site is located within the Goulburn Mulwaree LGA and is therefore subject to the provisions of the LEP. The site is located on land zoned RU1 – Primary Production pursuant to the LEP.

The objectives of the RU1 zone are:

- *To encourage sustainable primary industry production by maintaining and enhancing the natural resource base.*
- *To encourage diversity in primary industry enterprises and systems appropriate for the area.*
- *To minimise the fragmentation and alienation of resource lands.*
- *To minimise conflict between land uses within this zone and with adjoining zones.*
- *To promote the use of agricultural land for efficient and effective agricultural production.*
- *To avoid or minimise impacts on the natural environment and protect environmentally sensitive land.*
- *To allow the development of non-agricultural land uses which are compatible with the character of the zone.*
- *To allow the development of processing, service and value-adding industries related to agriculture and primary industry production.*
- *To protect and enhance the water quality of receiving watercourses and groundwater systems to reduce land degradation.*
- *To minimise the visual impact of development on the rural landscape.*

Within the RU1 zone electricity generating works are permitted with consent, on the basis that they are not listed within Part 4 of the RU1 Land Use Table. Anything not listed in Part 4 of the Land Use Table is permitted by reference to Part 3.

Additionally, by virtue of clause 34 of the ISEPP, electricity generating works are permitted within a prescribed rural zone. Pursuant to clause 8 of the ISEPP, the ISEPP prevails to the extent of any inconsistency with any other environmental planning instrument. Thus electricity generating works are permitted with consent in the RU1 zone within the Goulburn Mulwaree LGA.

The proposal provides for the diversification of primary industry enterprises, is capable of being designed to minimise conflict, would not lead to fragmentation or alienation of resource lands and would not increase demand on public services or facilities. On this basis, the project is not antipathetic to the zone objectives.

From a review of LEP mapping, the following constraints are noted to affect the site:

- Drinking Water Catchment – refer **Section 4.2.3.1.5**;
- EPI Heritage – refer **Section 4.2.2.5**;
- Terrestrial Biodiversity – refer **Section 2.4.2**; and
- Bushfire Prone Land – refer **Section 5.2.7**.

The potential impacts to the above matters and other potential development controls will be considered in the EIS.

5. IMPACT IDENTIFICATION AND ASSESSMENT

5.1 PRELIMINARY RISK ASSESSMENT

A preliminary risk assessment based on a desk-top review of available data, an initial site inspection, and review of SEARs issued by the Department for other solar farms, have all been considered to identify potential impacts associated with the development.

It is noted, however, that these impacts are identified and prioritised on the basis of preliminary research alone and their significance (or otherwise) will ultimately be determined following completion of further specialist studies, investigation and assessment.

5.2 KEY ISSUES

5.2.1 CUMULATIVE IMPACT

The nearest known state significant solar development to the subject site is located at Parkesbourne, approximately 30 kilometres to the southwest of the subject site. There are no other known solar developments proposed or approved in close proximity to the subject site. As such, the likelihood of significant cumulative impacts from solar developments is not anticipated.

At a state significant level, quarries have been the more common form projects proposed in the area of the proposed solar farm. State significant developments in the area in include the following developments:

- Holcim, Lynwood Quarry - located approximately 1.3 kilometres east of the site;
- Gunlake Quarry - located approximately 3 kilometres northeast of the site;
- Marulan Quarry - located approximately 5 kilometres southwest of the site; and

- Parkesbourne Solar Farm - located approximately 30 kilometres southwest of the site.

Given the separation distance between the various projects and the subject site, significant cumulative impacts are not anticipated. It is understood from pre-application discussions with Council planning staff (conducted on 17 November 2020) that significant ongoing impacts associated with the abovementioned quarries (such as noise or dust generation) are not occurring. There is the potential for cumulative impacts in relation to traffic during the construction phase of the project, subject to confirmation of the access location/route. Consideration of the potential for cumulative impacts would be addressed in the EIS.

5.2.2 BIODIVERSITY IMPACTS

The development will involve clearing of native vegetation, primarily limited to ground cover. Whilst the extent of the proposed clearing has yet to be determined, there are known occurrences of Endangered Ecological Communities in the locality and existing records of threatened species sightings near the site (as recorded in the NSW Atlas of Wildlife). There is also the potential for species and ecological communities listed under the *Environment Protection and Biodiversity Conservation Act 1999* to occur at or near the site, notwithstanding that a search of the site using the Department of Environment's online Protected Matters Search Tool (PMST) within 10 km of the site did not reveal any matters of significance.

A search of the Bionet Atlas of NSW Wildlife within a 2 km radius of solar farm site identified the potential for 2 threatened ecological communities, 29 threatened species and 13 listed migratory species.

A review of the Bureau of Meteorology (BOM) National Atlas of Groundwater Dependent Ecosystems (GDE) confirms that there are GDEs (surface or subsurface dependent) within the development site, associated with Narambulla Creek.

All of the above matters would be addressed via the ecological assessment in the EIS.

5.2.3 ABORIGINAL HERITAGE

Previous Aboriginal Heritage investigations were undertaken as part of an environmental assessment of the development area in 2017. The assessment, prepared by pitt & sherry, indicated that no Aboriginal sites or places within a 10km radius of the proposed works area had been registered, although it was identified that that the site contains landscape features that increase the likelihood of the presence of Aboriginal objects. The site was considered low risk due to the level of ground disturbance in this area, however further due diligence archaeological assessment was recommended.

An extensive search of the online Aboriginal Heritage Information Management System (AHIMS) on the 28 October 2020 identified 28 Aboriginal sites or places within a 3 km radius of the proposed works area. A total of 7 registered sites are located within or on the border of the study area. Potential impacts of the proposal may also include disturbance of unknown Aboriginal heritage sites.

It is proposed that as part of the EIS a specialist Aboriginal Heritage Assessment would be undertaken prior to the commencement of works to identify potential impacts, and necessary management and mitigation measures.

5.2.4 HISTORIC HERITAGE

As noted in **Sections 4.2.2.5 and 4.2.3.2.1**, there is an item of local heritage significance located within the host lot and within the solar investigation area.

An assessment of the potential for impact to this item would be completed via a historic heritage assessment to be appended to the EIS. Alternatively, the extent of the site would be confirmed and a generous buffer provided within which solar development, including any construction activities, would be excluded.

5.2.5 CONSTRUCTION NOISE

Noise impacts would mostly be associated with construction activities and include noise generated by preparatory earthworks, delivery and assembly of the solar panel infrastructure, grid connection, and operation of vehicles.

Operational noise impacts may include the operation of a solar tracking system (optional feature to be confirmed), transformer station and switchgear, and maintenance works. Operational noise impacts are expected to be negligible. It is proposed that as part of the EIS a specialist Construction and Operational Noise and Vibration Assessment would be undertaken to identify potential impacts, and necessary management and mitigation measures.

5.2.6 VISUAL IMPACTS

The site topography and location of the panels allows for the proposed development to be in a generally visually protected location from nearby settlements. The visual catchment of the subject site is low, with limited residential receivers in close proximity to the site or with a view of the site.

Elevation data from Geoscience Australia's Elevation Information System (ELVIS) confirms that the vast majority of residential receptors within a 4 km radius of the development site are shielded from direct views of the solar development by the prevailing topography. Stands of vegetation restrict views towards the site for some receptors. However, views may be possible from neighbouring properties without intervening topography or vegetation. Visual impact has the potential to be a key issue for local landowners and residents.

Potential impacts to surrounding sensitive receptors may include changes to existing rural views and solar glint and glare from the solar panels. It is proposed that as part of the EIS a Visual Impact Assessment would be undertaken to identify potential impacts, and necessary management and mitigation measures.

5.2.7 BUSHFIRE

Parts of the site are located on land mapped as bushfire prone. Therefore, there is a potential risk to site infrastructure a result of potential bushfire risk. Potential bushfire risk and appropriate management/ mitigation measures would be addressed in the EIS.

Bushfire risk management would also be addressed in a CEMP.

5.2.8 ACCESS AND TRAFFIC

The site is currently accessed from Carrick Road.

There are a number of potential access routes that could be used for construction and operational purposes, including via:

- Carrick Road, to the south of the intersection of Carrick Road and the Main Southern Railway Line;
- Rampion Hills Road;
- Munro Road;
- Brayton Road via Stoney Creek Road;
- Jerrara Road – this would require an access easement via unassociated land to the west, which is currently being investigated;

Investigations as to the most appropriate route are currently occurring, including discussions with Goulburn Mulwaree Council staff. Consultation is also proposed with Transport for NSW.

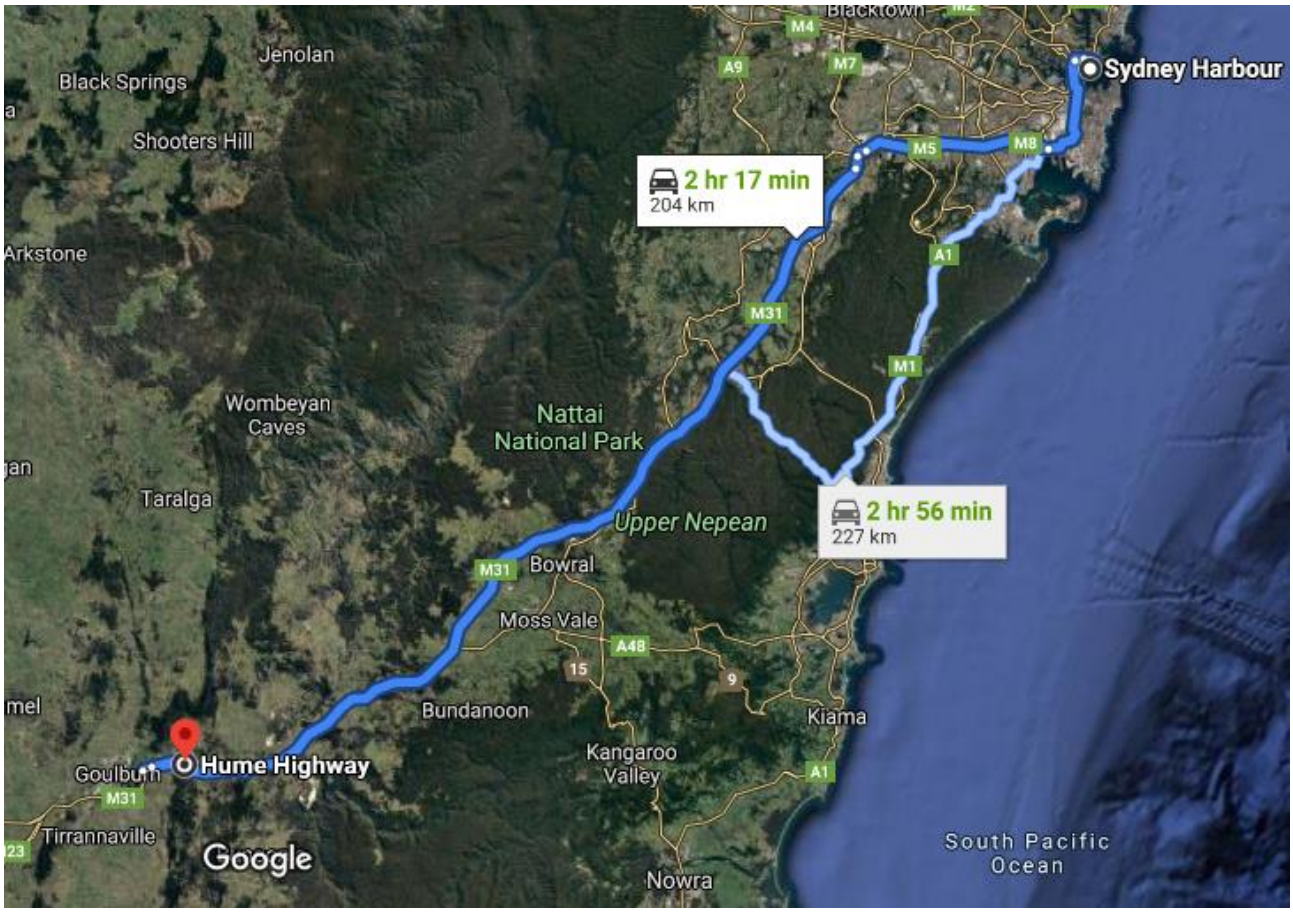
The final option selected would include considerations as to any necessary upgrades, and the impacts of this would be included within the EIS assessment.

Materials for construction would be expected to primarily arrive at Port of Sydney, and would be transported to site by heavy vehicles up to b-double in size.

The expected route for vehicles would be via the Hume Highway (refer **Figure 6**). This is an authorised b-double route for vehicles up to 26 metres in length.

A traffic impact assessment would be prepared to support the EIS and traffic impacts would be addressed in a Construction Environmental Management Plan (CEMP).

Figure 6 – Anticipated construction traffic routes



5.2.9 OTHER ENVIRONMENTAL ISSUES

Other environmental issues that they considered less likely to affect the project are identified in **Table 4**. These issues are considered to be manageable due to the availability of appropriate management and mitigation measures.

Table 4 – Other Environmental Issues

Issue	Potential Impacts	Strategies
Air quality	Potential impacts during construction may result from dust generation and vehicle emissions.	Air quality impacts would be assessed in the EIS.

Issue	Potential Impacts	Strategies
		Management of air quality impacts would be addressed in a CEMP.
EMF hazard and risk	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).	Potential EMF hazards and risks will be assessed in the EIS, including calculation of EMF levels associated with proposed infrastructure.
Groundwater	Impacts to groundwater are considered unlikely due to the depth of groundwater bearing zones.	The existing groundwater environment and potential impacts would be addressed in the EIS.
Land use	The development would result in a change in land use from extensive agriculture to include electricity generation.	Impacts to land use will be assessed in the EIS.
Loss of resources	The site is zoned for primary production purposes and is currently in use for grazing and cropping. The land selected has a predominant land capability of class 4 (moderate), with limited sections of class 5 (moderate-low) and class 6 (low). There is the potential to continue grazing activities on the site once the solar farm is operational. The approval of the use of the land for the purposes of a solar farm including extensive agriculture supports the ongoing agricultural use of the land. The proposal also has the potential to affect exploration and future mining of potential mineral resources. The eastern extent of the host lot is impacted by Exploration Licence (EL) 8673, being a group 1 mineral licence. This EL does not extend into the solar investigation area or the overhead powerline connection alignment investigation area. Contact has been initiated with the holder of the exploration licence but at the time of issue of this report, a response has not been received.	Impacts to existing land resources would be assessed in the EIS.
Social and economic	Construction is expected to generate positive economic impacts by creating employment opportunities. Increased employment opportunities may attract more people to the	Impacts to the social and economic environment would be assessed in the EIS.

Issue	Potential Impacts	Strategies
	Goulburn area, increasing pressure on accommodation and services.	
Soils and water	Potential impacts to soils and surface water may occur during construction, such as erosion and sedimentation. Impacts are expected to be minimal and manageable.	Impacts to soil and water would be assessed in the EIS. Management of soil and water impacts would be addressed in a CEMP.
Geology	The site is not mapped as being likely to contain naturally occurring asbestos.	Geotechnical investigations will be completed and reported in the EIS.
Historic Heritage	A search of the NSW Planning Portal (Heritage), inclusive of items listed under the Goulburn Mulwaree LEP, the NSW Office of Environment and Heritage State Heritage Register and Department of the Environment Australian Heritage Database indicates that there are known heritage items located on and near the site.	Impacts to historic heritage would be assessed in the EIS – refer **Section 5.2.4**.
Waste management	Potential impacts may include generation of waste during construction. Operation of the project is not expected to generate waste.	Potential wastes generated by the proposal would be addressed in the EIS. Waste management would be addressed in a CEMP.

6. JUSTIFICATION

6.1 Development Suitability

Benefits from this project will contribute to the Goulburn Mulwaree region, the state and the nation.

MSF will particularly benefit the Goulburn Mulwaree region given it provides a good solar resource, suitable land use and good network connection opportunities. Goulburn is a growing regional centre with a number of growth prospects. New clean energy generation will be an ideal complement to these growth prospects and contribute to the sustainability of the town.

Local economic benefits include employment, particularly during construction, together with the provision of services and components and training of local contractors. The project will introduce new capabilities to the region which will benefit later projects. Local companies will be able to win project work around the country as the solar industry grows. The project benefits the state because it ensures that renewable energy which is consumed in NSW is also generated here. Without local renewable generation projects in NSW, NSW electricity consumers will have to import renewable generation from projects in other states.

The annual carbon emissions avoided through generation of clean energy will be significant. Solar projects are a relatively new development in Australia despite being well established in overseas markets. MSF will contribute to reducing the cost of large scale solar in Australia by adding to the experience base of the local supply chain.

6.2 Site Suitability

Terrain Solar identified the MSF site during a thorough screening process to identify suitable large scale solar sites in New South Wales. The site was selected after a number of alternatives were discarded due to sub-optimal performance against screening criteria. The proposed site has a strong high voltage transmission network with significant available capacity to connect into the NEM. The solar resource is good. The land is zoned RU1 and the development of electricity generating works is permitted with consent pursuant to both the LEP and the ISEPP.

The development site is largely devoid of significant biodiversity constraints and the portion proposed via development would not require significant civil works required to prepare for construction. Further, whilst the land is currently used for farming and grazing the site is not located on or near any Biophysical Strategical Agricultural Land (BSAL). The site landowner is committed to the project. The site has good overall fundamental parameters that will generate electricity at a competitive rate.

6.3 Justification for preferred arrangement

The proposed site is ideally suited for a solar PV facility. Its proximity to the nearby transmission network minimises the connection infrastructure required and minimises the associated cost burden. The nearby transmission network has been assessed to have spare capacity to accept the connection. The solar resource at this location is comparatively high due to the generally hot and dry environmental conditions. Therefore, the facility will be highly efficient and operate at a high capacity factor. The site terrain is ideally suited as it is relatively flat and almost completely devoid of native vegetation. Therefore, very little site preparation will be required prior to installing the facility. There is minimal flooding risk. Site access is also excellent from the adjacent local roads.

7. CONSULTATION

7.1 Introduction

Terrain Solar engaged Elton's Consulting to prepare an engagement strategy to guide the carrying out of consultation for the proposed MCSF. A SEARs engagement overview document is provided at **Appendix A**.

In identifying the subject site as being suitable for the proposal, Terrain Solar has engaged in consultation with local land owners, Goulburn Mulwaree Council, Essential Energy, local progress associations and the Department Planning, Industry and Environment. The opportunities and areas of risk have been explored with stakeholders during these consultations.

7.2 Scoping Stage Consultation

A community notification letter was issued to 50 non associated landowners located in proximity to the proposed development site.

This notification introduced the project, outlined the planning process and provided contact details for the community infoline, mailbox and website.

As a result of the consultation 4 phone calls and 2 emails were received between Wednesday 16 December to Thursday 14 January 2021.

Feedback and discussion in these enquiries focused on:

- Registering details for further project updates
- Local media interest
- Visual impacts to adjacent properties
- Site location
- Construction impacts
- Site access arrangement during operations

A virtual pre-application discussion with Goulburn Mulwaree Council was completed by Zoom on the 17 November 2020. Council identified no in-principle concerns about the project. The following issues were discussed:

- The need for effective engagement with the community and nearby non associated receivers;
- The general suitability of the visual receiving environment;
- The benefits of co-location with other large scale projects, such as Gunlake and Holcim quarries;
- The benefits of considering Jerrara or Rampion Hills Roads in favour of Carrick Road, due to the intersection treatments in place with the highway;
- The need to ensure appropriate consideration of the potential for impacts to the Sydney Drinking Water Catchment;
- The bushfire prone status of the land.

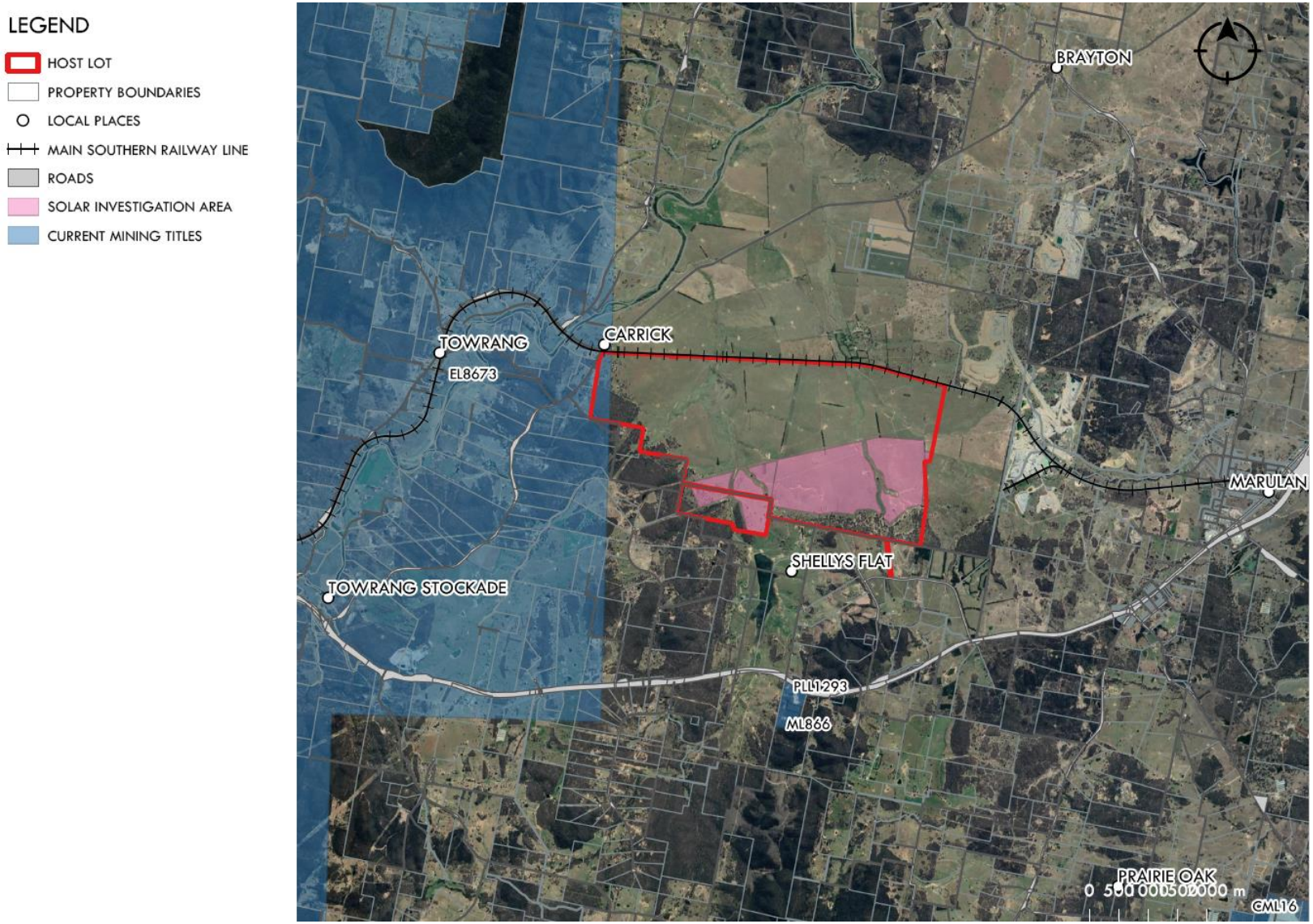
Terrain Solar have submitted an initial preliminary connection enquiry to Essential Energy and have received a positive response. Terrain Solar are now in the process of putting together further information to support a full grid connection enquiry.

Terrain Solar has issued correspondence to Inflection Resources, who hold exploration licence (EL8673) to the west of the site – refer **Figure 7**. The EL does not intersect with the solar investigation area but may intersect with any internal access road if the connection to Carrick Road is adopted. At the date of issue of this scoping report, a response from Inflection Resources has not been received.

The above matters would be addressed in the preparation of the EIS. Continued consultation with Council would occur throughout EIS preparation.

Council also provided contact details for a number of local progress associations, who were subsequently contacted about the project – refer **Appendix A**.

Figure 7 – Exploration licence



7.3 EIS Consultation

Consultation will be undertaken in accordance with the following guidelines:

- *Large-Scale Solar Energy Guideline for State Significant Development* (DP&E, 2018).
- *Community and Stakeholder Engagement Draft Environmental Impact Assessment Guidance Series* (DP&E, 2017)
- *Community Consultative Committee Guidelines State Significant Projects* (DP&E, 2019) – if a Community Consultative Committee is required.

7.3.1 GOULBURN MULWAREE COUNCIL

Goulburn Mulwaree Council will continue to be informed of the proposal and further face to face meetings will be scheduled with the planning officers and elected officials.

7.3.2 NEIGHBOURS

Neighbours will be consulted through information posted directly and face to face meetings as requested to inform them of project details and progress and to obtain their input. This will continue through the development approval process and construction.

7.3.3 COMMUNITY

The community will be informed of the project through notices in local publications. Consultation will be considered depending on the amount of local interest for an information day and any limits that may apply with respect to COVID-19. Contact numbers and an email address will be provided for people who wish for more details.

7.3.4 SPECIAL INTEREST GROUPS

Special interest groups (including the Towrang and Marulan Progress Associations among others) will be informed of the project and their views sought. The process of identifying affected groups has commenced through discussions with Council, and targeted consultation with these groups is a key part of the engagement strategy. As the development progresses and the construction schedule becomes clearer, local businesses will be advised via notices and media and will be invited to provide proposals for construction equipment, goods and services.

7.3.5 STATE AND FEDERAL GOVERNMENT

State and Federal government authorities will be informed of the project to the extent they are affected. The NSW Department of Industry and Regional Development Australia will be advised to ensure any opportunities to coordinate with the proposed infrastructure developments in the Goulburn area are captured. Elected representatives, State and federal elected members and the relevant ministers for Energy, Environment and Regional Development will be advised of the project as it progresses to ensure it is recognised for its contribution to state and federal clean energy development targets.

7.3.6 OTHER

Consultation will also be undertaken with the following stakeholders:

- Members of the local Aboriginal community;

- Organisations representing local, regional, State, national and international interests regarding business, community, indigenous and environmental issues; and
- Affected utility providers.

7.4 Post Approval Consultation

If approved, the following consultation would be undertaken:

- Ongoing consultation with affected landholders and the community to manage issues regarding construction noise and disturbance; and
- Comply with any requirements to publish performance results.

8. CAPITAL INVESTMENT VALUE

Table 5 provides a preliminary breakdown of the capital cost of the project.

The overall cost of equipment and construction will be approximately $320 million assuming the final capacity is 150 MWac plus an optional battery energy storage system with a potential capacity of up to 100 MWhours, although noting a likely capacity of closer to 40 MWhours.

Table 5 – Estimated Capital Investment Value

Project component	$ (millions)
Solar PV module equipment, mounting structure equipment, inverters and LV transformer, civil works (piling, foundations, tracks, site entrance, fencing, compound, control room, site preparation) and electrical and communications cabling and equipment, including installation and commissioning	$255 million
BESS	$65 million
TOTAL	$320 million

9. REFERENCES

Table 6 – References

References
Australian Government Department of the Environment (DoE). (n.d.). *Australian Heritage Database*. Retrieved from: http://www.environment.gov.au/topics/heritage/publications-and-resources/australian-heritage-database
NSW Department of Planning and Environment (DP&E). (2016). *Community Consultative Committee Guidelines*.
NSW Department of Planning and Environment (DP&E). (2017). *South East and Tablelands Regional Plan 2036*. Retrieved from: https://www.planning.nsw.gov.au/-/media/Files/DPE/Plans-and-policies/south-east-and-tableland-regional-plan-2017-07.pdf

References
NSW Department of Planning and Environment (DP&E). (2018). *Large-Scale Solar Energy Guideline for State Significant Development*. Retrieved from: https://www.planning.nsw.gov.au/-/media/Files/DPE/Guidelines/large-scale-solar-energy-guideline-2018-12-11.pdf?la=en
NSW Department of Planning and Environment (DP&E). (2017). *Guideline for Engaging Stakeholders*.
NSW EPA. (n.d.). *Contaminated Land Record.* Retrieved from: http://www.epa.nsw.gov.au/prclmapp/searchregister.aspx
NSW EPA. (n.d.). *List of NSW contaminated sites notified to EPA.* Retrieved from: http://www.epa.nsw.gov.au/clm/publiclist.htm
NSW Office of Environment and Heritage (OEH). (n.d). Aboriginal Heritage Information Management System (AHIMS) Retrieved from: http://www.environment.nsw.gov.au/licences/AboriginalHeritageInformationManagementSystem.htm . [Accessed 4 November 2020].
NSW Office of Environment and Heritage (OEH). (n.d.). *State Heritage Register.* Retrieved from: http://www.environment.nsw.gov.au/heritageapp/heritagesearch.aspx#amapsearch [Accessed December 2020].
Goulburn Mulwaree Council *et al*. (2016). *The Tablelands Community Strategic Plan*. Retrieved from: https://www.yassvalley.nsw.gov.au/assets/Document-Library/Key-Strategic-Documents/The-Tablelands-Regional-Community-Strategic-Plan-2016-2036.pdf
Goulburn Mulwaree Council. (2020). Goulburn Mulwaree Local Strategic Planning Statement. Retrieved from: goulburn.nsw.gov.au/Development/Plans-Strategies#section-2
Cardno. (2016). *The Tablelands Regional Community Strategic Plan 2016-2036*. Retrieved from: https://www.yass.nsw.gov.au/assets/Document-Library/Key-Strategic-Documents/The-Tablelands-Regional-Community-Strategic-Plan-2016-2036.pdf

APPENDIX A

ENGAGEMENT STRATEGY

Marulan Large Scale Solar Farm

SEARS Engagement Scoping Report

Client: Terrain
Date: 14 January 2021

Contact:

Caroline Anthony
Caroline.anthony@elton.com.au
02 9272 5641

SYDNEY

Level 25, 680 George St, Sydney, NSW, 2000

www.elton.com.au
consulting@elton.com.au
Sydney | Brisbane | Canberra | Darwin | Melbourne | Perth
ABN 56 003 853 101

Prepared by	Anna Collins
Reviewed by	Caroline Anthony
Date	14 January 2021
Version	FINAL

Contents

Appendices

1 Project Purpose

Terrain Solar is seeking approval to build a large-scale solar energy project at 740 Carrick Rd, Carrick. The proposed solar project will produce up to 150 MW of energy over 250 – 300 hectares on the site.

Once the site is fully operational it will export clean, renewable energy to the national energy market powering 34,000 average homes.

Prior to lodging the scoping report for the SEARS, Terrain Solar carried out preliminary engagement with adjacent landowners.

The purpose of this preliminary engagement was to:

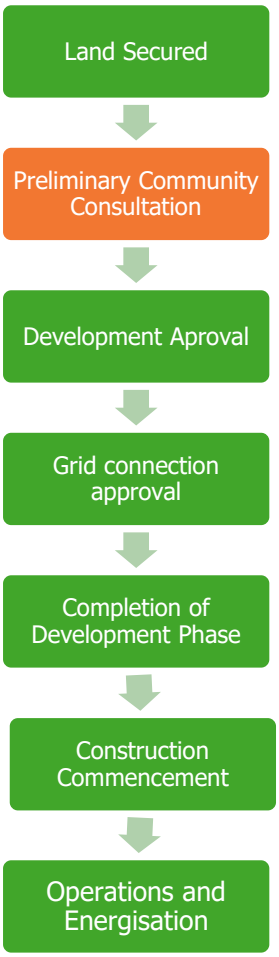
» build awareness of the of the proposal with neighbouring residents

» create a positive perception of the proposal and Terrain Solar within the communities in Carrick, Towrang and Marulan

» be prepared to manage any negative responses from the local community and media

» establish channels for local community to ask questions and give feedback

The following report outlines the engagement carried out, stakeholder feedback and next steps in the engagement process.



Engagement principles:

» **No surprises**: provide timely, relevant, clear and transparent information to the local community about the proposed modification and the approval process

» **Accessible:** make the planning and approvals process clear and understandable for a non-technical audience

» **Accountable:** provide a clear and accurate account of engagement activities to inform the planning approval process

» **Collaborative:** establish a positive relationship with the local community, as a trusted member of that community

» **Responsive:** respond to community questions and concerns openly and honestly

» **Adaptable:** deliver an engagement program that is safe and effective in the changing COVID environment

2 Community Engagement

A preliminary engagement program was developed to introduce the project to adjacent landowners, establishing communication channels and relationships with key stakeholders ahead of SEARS lodgement. The purpose of this engagement was to inform and engage sensitive receivers surrounding the proposed site at **740 Carrick Rd, Carrick.**

The following engagement channels were implemented:

Community notification

Community info-line and inbox

Project website

Community notification

A community notification was issued to **50** sensitive receivers in Carrick / Towrang across:

» Rampion Hills Rd

» Munro Rd

» Jerrara Rd

» Carrick Rd

The notification introduced the project, outlined the planning process and provided contact details for the community infoline, mailbox and website.

All stakeholders received the community notification via letterbox drop on **Wednesday 16 December**. A copy of the notification is provided in Appendix A.

Project infoline and email address

The dedicated 1800 line and project email address were established for community members to provide their feedback and comments on the project, and to ask questions of the project team.

4 phone calls and **2** emails were received between **Wednesday 16 December** to **Thursday 14 January 2021**.

Feedback and discussion in these enquiries focused on:

» Registering details for further project updates

» Local media interest

» Visual impacts to adjacent properties

» Site location

» Construction impacts

» Site access arrangement during operations

The dedicated project website, infoline and email address will remain active and open to the public throughout the project, and the team will continue to respond to enquiries and questions as they arise.

Key Stakeholder Groups

Additionally, three key stakeholder groups were directly contacted with an introduction to both Terrain and the project. These groups included:

» Marulan Chamber of Commerce

» Towrang Progress Association

» Discover Marulan

Further to this, the listed owner of the neighbouring mining site was also emailed as a key stakeholder. The communication provided details of the project and confirmation that proposed infrastructure would not impact proposed exploration activities within the subject site.

Key stakeholder groups will continue to be updated and consulted as planning progresses.

3 Future engagement & next steps

Terrain Solar is committed to ongoing engagement for the Marulan Solar Project. We will continue to consult directly with the adjacent landowners as well as the broader community. Engagement will continue to be informed by the planning process and engagement tools will be accessible, transparent and collaborative. Future engagement with the key stakeholders will include:

- Doorknocks and one-on-one meetings (where requested)
- Website updates
- Community notifications
- Briefings with local members, Council and key stakeholder groups
- Information sessions for the broader community

The 1800 info line and project email address will remain open to all interested stakeholders during the project life span. These channels will remain as critical points of contact between stakeholders and the Terrain stakeholder engagement and community relations team.

Further to this pending SEARS approval, the project team will hold information sessions, which will be accessible to all interested local stakeholders. This will be an opportunity for the local community to learn more and speak to members of the project team directly.

A Community Notification

December 2020

Dear resident

A solar energy proposal for Marulan

We are writing to tell you about a proposal for a new solar energy project in your local area.

Terrain Solar is an Australian owned and operated business delivering large scale solar energy projects to regional Australia that benefit the community, the environment and the economy.

Terrain Solar is proposing to build a solar energy project on land located at 740 Carrick Rd, Carrick. This is located at the same site as the Carrick Solar Farm project, that was previously being developed by another company. The proposed solar project will produce up to 150 megawatts of energy which will be used to send power into the local energy grid.

The proposal is in the early stages and we want to work closely with the community as we develop this important project. As we progress through each stage of local and state government approval processes we will provide more detailed information about the project and invite you to ask questions and provide feedback on the proposal.

We will soon be making a request to the Department of Planning, Industry and Environment for the Secretary's Environmental Assessment Requirements (SEARs), which specify what approvals are required for this proposal. The Department will publish the SEARs on their website once they have reviewed our request.

When the SEARs have been received, we will hold information sessions for the local community where you will be able to talk to members of our team, ask questions and provide your feedback.

In the meantime, you can contact us on **1800 749 232**, by email at **info@marulansolarfarm.com.au** or visit our website at **www.marulansolarfarm.com.au**

We understand the importance of keeping the local community informed and we look forward to talking to you more about this exciting project.

Yours sincerely

Tom Allen
Project Development Manager

ABOUT TERRAIN SOLAR

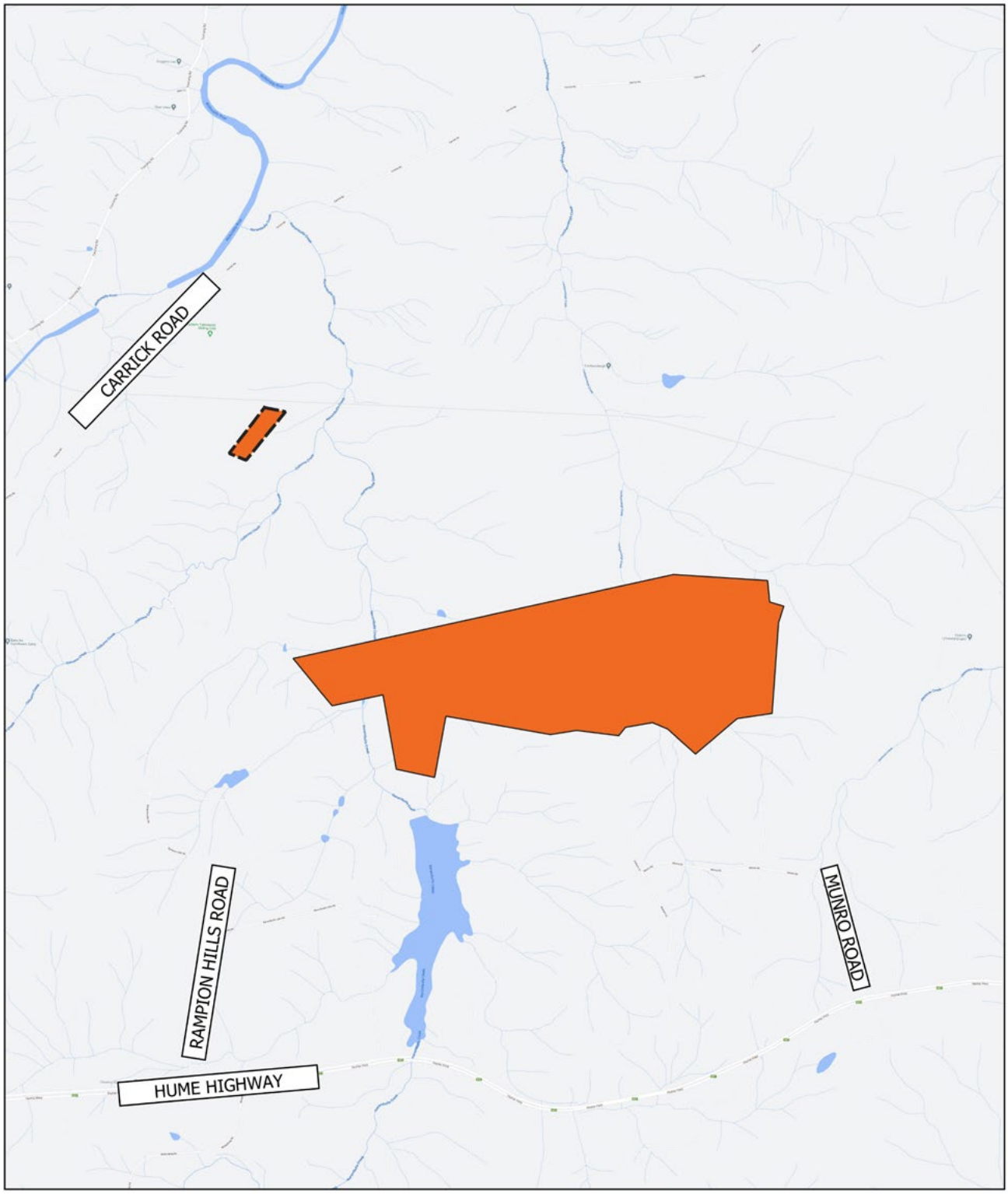
We are an Australian owned and operated business that is developing innovative and strategically located solar farms across regional Australia.

Terrain Solar recently worked in collaboration with Queensland University to complete a project in Warwick in Queensland's Southern downs region.

We currently have projects under construction in a variety of locations including Corowa, Wagga Wagga and Junee.

We are proud of what we do – creating clean energy and investment in regional NSW.

We are committed to working closely with local communities to deliver better outcomes for everyone.



Solar Farm Site Invesitigation Area

The exact location of solar infrastructure on the site is under investigation and has not yet been determined. We will keep the community informed as plans develop

B Key messages

Key messages

Key messages were used to guide and inform all stakeholder interactions and collateral, these are outlined below.

About the project

» Terrain Solar is proposing to build a large-scale solar energy project at 740 Carrick Rd, Carrick.

» This proposed solar project will produce up to 150 megawatts of energy over a site that will cover 250-300 hectares of land.

» This is located at the same site as the Carrick Solar Farm project, that was previously being developed by another company.

» This large-scale solar energy project will be used to send clean renewable sourced power into the NSW electricity grid to serve the needs of both the local community, and the broader NSW community.

» During the peak of construction there will be roughly 200 workers on site, drawing in skilled local contractors and sub-contractors.

Planning process

» Right now, we're in the early stages of a rigorous planning process that involves extensive local and state government approvals that we expect to take around a year to complete.

» We'll be working closely with the local community through each stage of this planning process, so they can understand what we're proposing, ask questions and give us their feedback.

» Very shortly, we'll be making a request to the Department of Planning, Environment and Planning for the Secretary's Environmental Assessment Requirements (SEARs), which will clarify the specific approval requirements for this proposal.

» If approved, we expect construction will start around late 2021 and take around about 8-12 months to complete.

Consultation

» The team will be doorknocking houses in Carrick to let residents know what's happening and to offer an initial opportunity to ask questions.

» We understand that not everyone will available to talk at this time, but don't worry - this will be the first of many opportunities you will have to talk with us.

» In preparation of the EIS we'll be holding online information sessions where the local community can learn more and ask questions of the project team

» In the meantime, you can find out more by calling us on **1800 749 232**, email at info@marulan.com.au or go to our website at https://www.terrainsolar.com/portfolio

About Terrain Solar

» Terrain Solar is an Australian owned and operated business that has a track record of successfully developing solar projects across regional Australia, including at Wagga Wagga, Junee, Corowa, Warwick, and Moama, and we have a number of large-scale solar farms actively in development.

» Terrain Solar brings has a strong track record in working with local communities the development of large-scale renewable energy projects across regional QLD & NSW.

elton consulting

www.elton.com.au

Premise