

31 October 2016

**sent by email correspondence**

Iwan Davies  
Senior Planning Officer  
Department of Planning and Environment  
Level 22, 320 Pitt Street  
Sydney NSW 2001

Dear Iwan

**Limondale Sun Farm**  
**Preliminary Environmental Assessment – Clarification of Lot/DP numbers**

The Preliminary Environmental Assessment (PEA) for the Limondale Solar Farm has been updated in accordance with the Department of Planning and Environment's requirements, as follows:

- Land descriptions – the lot/deposited plan descriptions have been updated in Section 1.2 of the PEA and are detailed in Table 1. A plan showing the Lot/DP descriptions is provided with this letter.

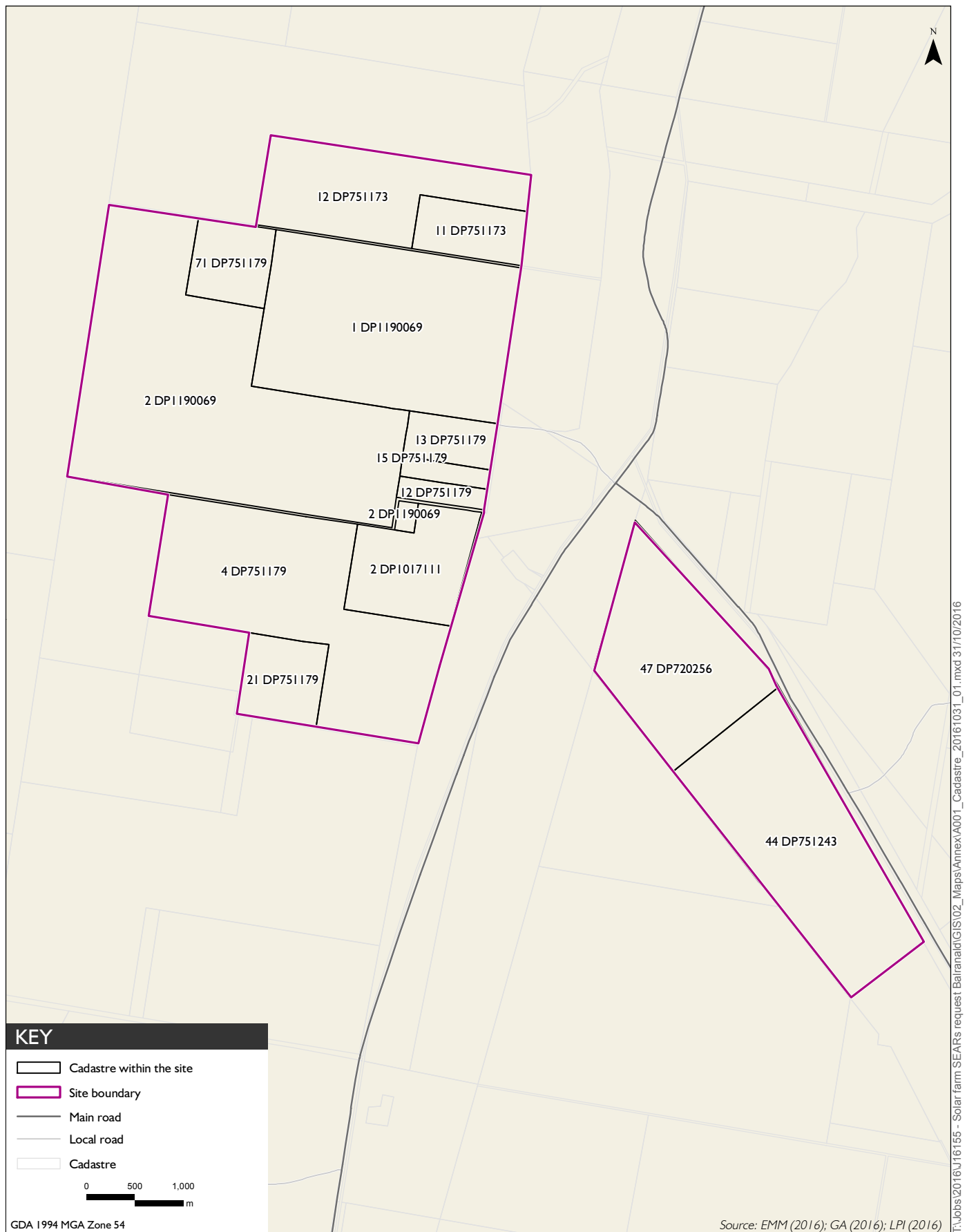
**Table 1**      **Limondale Solar Farm land description**

| Site            | Deposited plan | Lots                  |
|-----------------|----------------|-----------------------|
| Western portion | 751179         | 4, 12, 13, 15, 21, 71 |
|                 | 751173         | 11, 12                |
|                 | 1190069        | 1, 2                  |
|                 | 1017111        | 2                     |
| Eastern portion | 720256         | 47                    |
|                 | 751243         | 44                    |

Sincerely



**John Zammit**  
**Development Manager**  
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# **Limondale Sun Farm**

**Addendum to the Limondale Sun Farm Request for Secretary's  
Assessment Requirements**

**Overland Sun Farming Company Pty Ltd**  
October 2016

## **Overland Sun Farming Company Pty Ltd**

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## Limondale Sun Farm

Report J16155RP1 | Prepared for Overland Sun Farming Company | 31 October 2016

|             |                                                                                   |             |                                                                                     |
|-------------|-----------------------------------------------------------------------------------|-------------|-------------------------------------------------------------------------------------|
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| Signature   |  | Signature   |  |
| Date        | 31 October 2016                                                                   | Date        | 31 October 2016                                                                     |

This report has been prepared in accordance with the brief provided by the client and has relied upon the information collected at the time and under the conditions specified in the report. All findings, conclusions or recommendations contained in the report are based on the aforementioned circumstances. The report is for the use of the client and no responsibility will be taken for its use by other parties. The client may, at its discretion, use the report to inform regulators and the public.

### Document Control

| Version | Date       | Prepared by           | Reviewed by |
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### Approved by Overland Sun Farming Company

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## 1 Introduction

### 1.1 The project

OVERLAND Sun Farming Company Pty Ltd (OVERLAND) proposes to develop the Limondale Sun Farm, a large-scale solar photovoltaic (PV) generation facility and associated infrastructure near the township of Balranald, in the Murray Darling Depression bioregion of south-western NSW (Figure 1.1) (the project). The project will have a capital investment of greater than \$30 million.

The project is a State significant development (SSD) under the State Environmental Planning Policy (State and Regional Development) 2011 (SRD SEPP). Therefore, a development application (DA) for the project is required to be submitted under Part 4, Division 4.1 of the NSW Environmental Planning and Assessment Act 1979 (EP&A Act). The NSW Minister for Planning, or the Minister's delegate, is the consent authority.

The project is intended to have benefits including:

- production of renewable energy, directly contributing to the State's renewable energy targets and the objectives of the NSW Government's Renewable Energy Action Plan (REAP);
- creation of employment opportunities, including approximately 100 full-time equivalents during construction and five during operations;
- direct and indirect benefits to the local economy during the life of the project;
- diversification of local revenue streams; and
- increased energy security through valuable contributions to a more diverse energy mix.

The project is consistent with the objectives of the NSW Government's REAP and will contribute to achieving the Commonwealth Government's National Renewable Energy Target of 33,000 gigawatt hours (GWh) of energy generated by renewable sources by 2020 (DoI DRE 2016).

### 1.2 Site and surrounds

OVERLAND proposes to develop the project on a site within the Balranald Shire local government area (LGA) and Murray River LGA (amalgamated in May 2016 of the former Wakool and Murray Shire LGAs), approximately 14 kilometres (km) south of the township of Balranald (Figure 1.1). The project will be developed on land divided by parcels of Crown land, and is made up of a western (2,048 hectares (ha)) and eastern (589 ha) portion (the site). The land is legally described as, to the west, DP 751179 (Lots 4, 12, 13, 15, 21 and 71), DP 751173 (Lots 11 and 12), DP 1017111 (Lot 2) and part of DP 1190069 (Lots 1 and 2), and to the east, DP 720256 (Lot 47) and DP 751243 (Lot 44) (Figure 1.2). A preliminary development footprint has been established for the western portion of the site which excludes several stands of remnant vegetation and has an area of 1,271 ha (see Figure 1.2).

The western portion of the site is zoned RU1 Primary Production under the Balranald Local Environmental Plan 2010 (Balranald LEP). The eastern portion of the site is zoned RU1 Primary Production under the Wakool Local Environmental Plan 2013 (Wakool LEP). The site has been highly modified by past disturbances associated with land clearing, cropping, livestock grazing and weed invasion. It is currently used for broad acre cropping.

The western and eastern portions of the site are divided by parcels of Crown land approximately 1.5 km wide (in the vicinity of the site), which forms part of a travelling stock reserve (TSR) that extends further north and south. Yanga Way runs through this Crown land.



The site has been selected as it is ideally located adjacent to the Transgrid 220 kilovolt (kV) network, and has been heavily modified through cropping which will enable development of the project and associated electricity grid connection with minimal impact to vegetation and heritage values in the area.

Transgrid's Balranald 220 kV Substation is situated within the TSR between the site's western and eastern portions (Figure 1.2). Transgrid's 220 kV transmission line, which runs from Darlington Point to Broken Hill, traverses both the western and eastern portions of the site. It has suitable access to the regional road network including the Sturt and Murray Valley highways and Yanga Way (Figure 1.1).

Climate data from the Bureau of Meteorology (BoM) indicates that the site's daily solar exposure ranges between 18-20 megajoules/m<sup>2</sup> (MJ/m<sup>2</sup>), which equates to approximately 5-5.6 kWh/m<sup>2</sup> with an average of 7-8 hours of sunshine per day (BoM 2016a; BoM 2016b). Annual cloud cover statistics over a 41 year period indicate that the site receives an average of 64.9 cloudy days per annum (BoM 2016c). Both the Balranald Shire and Wakool Shire regions experience a consistently high availability of solar radiation, and are therefore ideal for large scale solar development.

### **1.3 Applicant**

OVERLAND proposes to develop the project on a site within the Balranald Shire local government area (LGA) and Murray River LGA (amalgamated in May 2016 of the former Wakool and Murray Shire LGAs), approximately 14 kilometres (km) south of the township of Balranald (Figure 1.1). The project will be developed on land divided by parcels of Crown land, and is made up of a western (2,048 hectares (ha)) and eastern (589 ha) portion (the site). The land is legally described as, to the west, DP 751179 (Lots 4, 11, 12, 13, 15 and 21), DP 1017111 (Lots 1 and 2) and part of DP 1190069 (Lot 1), and to the east, DP 720256 (Lot 47) and DP 751243 (Lot 44) (Figure 1.2). A preliminary development footprint has been established for the site which includes a portion of the western site that has an area of 1,271 ha and has been selected to avoid substantial stands of remnant vegetation (see Figure 1.2).

OVERLAND's personnel have successfully led benchmark renewable energy and infrastructure projects from start to finish and have a sound record that traverses early stage site identification, working with landowners and communities, obtaining consents and licences from government to build and operate, securing energy and grid connection contracts, arranging financing and managing construction and ongoing operations and power generation.

This experience includes responsibility for the development, financing, construction and operation of over 320 MW of renewable energy generation projects including the delivery of approximately 50 MW of renewable energy generation in NSW.

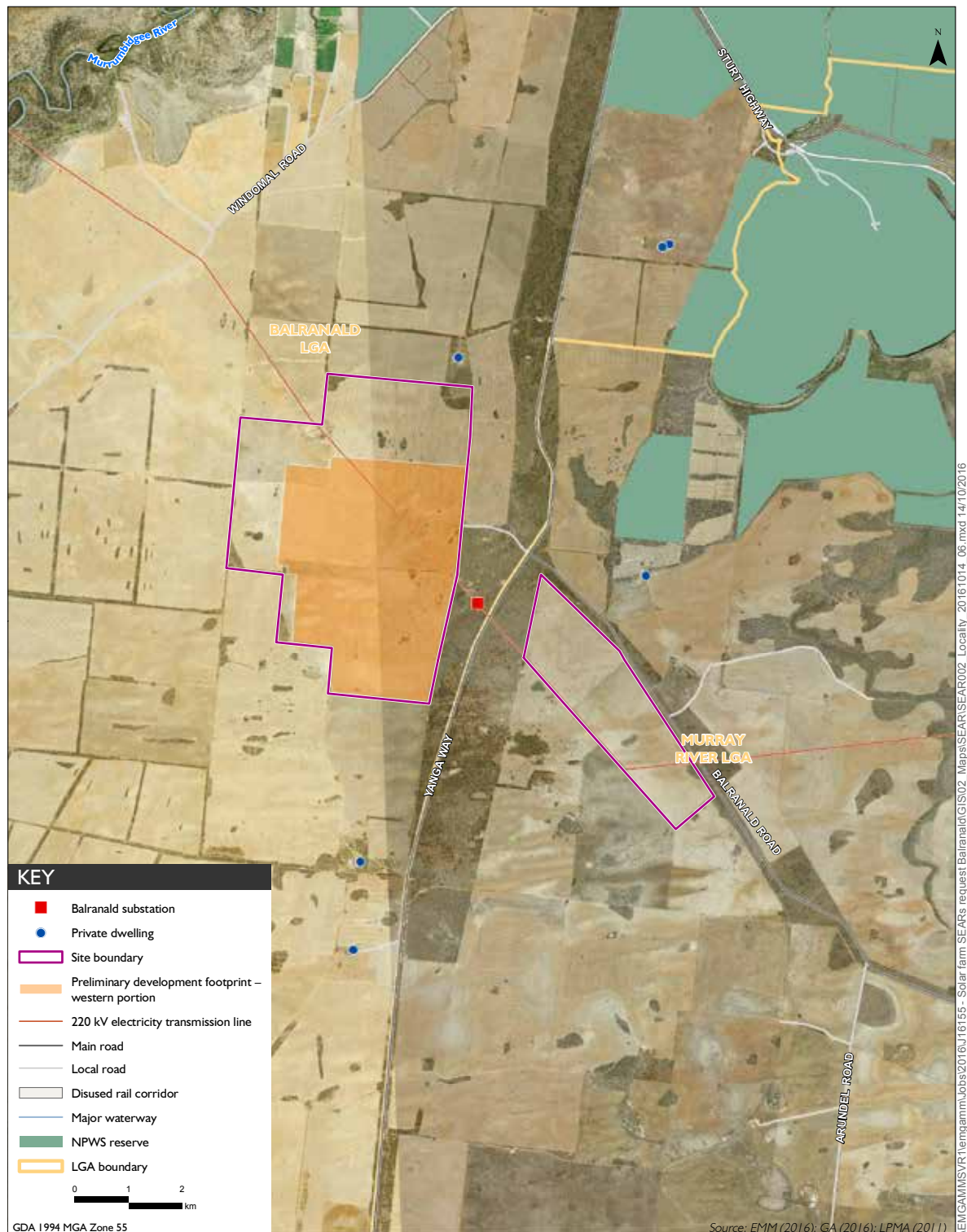
OVERLAND is currently developing a significant portfolio of solar energy sun farms throughout NSW and other National Electricity Market states.

### **1.4 Purpose of report**

The purpose of this report is to request, and inform the content of, the Secretary's Environmental Assessment Requirements (SEARs) for the project. The SEARs will identify the requirements for the environmental impact statement (EIS) that will be prepared to accompany the DA for the project.

This report has been prepared by EMM Consulting Pty Limited (EMM) on behalf of OVERLAND.





Location of the Limondale Sun Farm | Limondale Sun Farm | Request for SEARs | Figure 1.2



## 2 Planning framework

### 2.1 NSW Environmental Planning and Assessment Act 1979

#### 2.1.1 Approval process

The EP&A Act and the NSW *Environmental Planning and Assessment Regulation 2000* (EP&A Regulation) provide the framework for environmental planning and assessment in NSW. Part 4 of the EP&A Act relates to development assessment; Part 4, Division 4.1 relates to the assessment of development deemed to be significant to the State (or SSD).

Section 89C(2) of the EP&A Act states that a:

... State environmental planning policy may declare any development, or any class or description of development, to be State significant development.

The SRD SEPP identifies development that is SSD. Clause 8 of the SRD SEPP states:

- (1) Development is declared to be State significant development 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 project meets both these requirements; it requires development consent, and is a development specified in Schedule 1 of the SRD SEPP. Permissibility of the project is described below.

Schedule 1 of the SRD SEPP defines the following as SSD:

Electricity generating works and heat or co-generation

Development for the purpose of electricity generating works or heat or their co-generation (using any energy source, including gas, coal, biofuel, distillate, waste, hydro, wave, solar or wind power) that:

- (a) has a capital investment value of more than \$30 million.

The project is a development for the purpose of electricity generation and will have a capital investment value of more than \$30 million. Consequently, the project is SSD.

#### 2.1.2 Permissibility

The relevant local planning instruments are the Balranald LEP and the Wakool LEP for the western and eastern portions of the site, respectively.

##### i Balranald LEP

Under the Balranald LEP, the site's western portion is zoned RU1 Primary Production. The objectives of this zone are: to encourage sustainable primary industry production by maintaining and enhancing the natural resource base;

- to encourage sustainable primary industry production by maintaining and enhancing the natural resource base;
- to encourage diversity in primary industry enterprises and systems appropriate for the area;
- to minimise the fragmentation and alienation of resource lands;



- to minimise conflict between land uses within this zone and land uses within adjoining zones;
- to encourage development that is in accordance with sound management and land capability practices, and that takes into account the environmental sensitivity and biodiversity of the locality;
- to support rural communities; and
- to ensure the provision of accommodation for itinerant workers.

The project will harness a natural resource, namely solar energy. Whilst the development of this project will impact the availability of land for other primary production, it will allow for and encourage diversity in the area's land use, and will provide economic stimulus and support to rural communities.

Development for the purpose of electricity generation is prohibited in the RU1 zone as it is not specified in item 2 or 3 of the Balranald LEP. Notwithstanding, clause 34 (7) of *State Environmental Planning Policy (Infrastructure) 2007* states that:

...development for the purpose of a solar energy system may be carried out by any person with consent on any land. Therefore, development for the purpose of a solar energy system may be carried out on the site with development consent.

Therefore, development for the purpose of a solar energy system may be carried out on the site with development consent.

## ii **Wakool LEP**

Under the Wakool LEP, the site's eastern portion is zoned RU1 Primary Production. The objectives of this 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 land uses within adjoining zones;
- to promote the use of agricultural land for efficient and effective agricultural production without the encroachment of urban land uses;
- to allow the development of processing, service and value-adding industries related to agriculture and primary industry production; and
- to allow the development of complementary non-agricultural land uses that are compatible with the character of the zone.

The project will harness a natural resource, namely solar energy. Whilst the development of this project will impact the availability of land for other primary production, it will allow for and encourage diversity in the area's land use, and will provide economic stimulus and support to rural communities.

Development for the purpose of electricity generation is prohibited in the RU1 Zone as it is not specified in item 2 or 3 of the Wakool LEP. Notwithstanding, clause 34 (7) of *State Environmental Planning Policy (Infrastructure) 2007* states that:

...development for the purpose of a solar energy system may be carried out by any person with consent on any land.



Therefore, development for the purpose of a solar energy system may be carried out on the site with development consent.

Section 78A (8A) of the EP&A Act requires a DA for SSD to be accompanied by an EIS. Schedule 2 of the EP&A Regulation requires an EIS to be prepared in accordance with the SEARs issued for the project

## **2.2 Other State legislation**

### **2.2.1 Crown Lands Act 1989**

The NSW *Crown Land Act 1989* (CL Act) sets out how Crown land is to be managed. In particular, specific use of Crown land generally needs to be authorised by a lease, licence or permit. The approval of the NSW Crown Land Division would be required under the CL Act for any works in Crown land. As discussed in Section 1.2, Transgrid's Balranald 220 kV Substation is within the TSR on Crown land.

### **2.2.2 Protection of the Environment Operations Act 1997**

The NSW *Protection of the Environment Operations Act 1997* (POEO Act) is the principal NSW environmental protection legislation and is administered by the NSW Environment Protection Authority (EPA). Section 48 of the POEO Act requires an environment protection licence (EPL) to undertake scheduled activities at a premise. Scheduled activities are defined in Schedule 1 of the POEO Act and include the following premise-based activities that apply to the project:

17 Electricity generation

- (1) ...general electricity works, meaning the generation of electricity by means of electricity plant that, wherever situated, is based on, or uses, any energy source other than wind power or solar power.
- (2) Each activity referred to in Column 1 of the Table to this clause is declared to be a scheduled activity if it meets the criteria set out in Column 2 of that Table.

The table referred to in Schedule 1, clause 17 specifies 'general electricity works' with 'capacity to generate more than 30 megawatts of electrical power'. The project will have a capacity greater than 30 MW and therefore requires an EPL. Under the provisions of the EP&A Act, an EPL cannot be refused if it is necessary for carrying out a SSD authorised by a development consent (see Section 2.2.5).

### **2.2.3 Water Management Act 2000**

The NSW *Water Management Act 2000* (WM Act) regulates the use and interference with surface and groundwater in NSW where a water sharing plan has been implemented. A number of water sharing plans apply to the region in which the site is located. The relevant water sharing plans will be discussed in the EIS.

### **2.2.4 NSW Roads Act 1993**

The NSW *Roads Act 1993* is administered by either Roads and Maritime Services (RMS), local government or New South Wales Land and Property Information (NSW LPI). The RMS has jurisdiction over major roads, local government over minor roads and NSW LPI over Crown roads. The *Roads Act 1993* sets out the rights of the public in regard to access to public roads.

Under section 138 or Part 9, Division 3 of the NSW *Roads Act 1993*, a person must not undertake any works that impact on a road, including connecting a road (whether public or private) to a classified road, without approval of the relevant authority, being either RMS or local council, depending upon classification of the road.



The interaction of the project with the local and regional road network will be addressed in the EIS. Under the provisions of the EP&A Act, an approval under section 138 or Part 9, Division 3 of the *Roads Act 1993* cannot be refused if it is necessary for carrying out a SSD authorised by a development consent (see Section 2.2.5).

### 2.2.5 Rural Fires Act 1997

The NSW *Rural Fires Act 1997* (RF Act) aims to prevent, mitigate, and suppress bush and other fires in local government areas of the State. Section 63(2) of the RF Act requires the owners of land to prevent the ignition and spread of bushfires on their land. Under Section 89J of the EP&A Act, a bush fire safety authority under Section 100B of the RF Act is not required for SSD that is authorised by a development consent.

The NSW Rural Fire Service Bush Fire Prone Land online mapping tool indicates that the site is not bush fire prone.

### 2.2.6 Other State approvals required

Section 89J of the EP&A Act states that the following relevant authorisations are not required for SSD that is authorised by a development consent:

- an approval under Part 4, or an excavation permit under section 139, of the NSW *Heritage Act 1977*;
- an Aboriginal heritage impact permit under section 90 of the NSW *National Parks and Wildlife Act 1974*;
- an authorisation referred to in section 12 of the NSW *Native Vegetation Act 2003* (or under any Act to be repealed by that Act) to clear native vegetation on State protected land;
- a bush fire safety authority under section 100B of the NSW *Rural Fires Act 1997*; and
- a water use approval under section 89, a water management work approval under section 90 or an activity approval (other than an aquifer interference approval) under section 91 of the NSW *Water Management Act 2000*.

In addition, Section 89J states that Division 8 of Part 6 of the NSW *Heritage Act 1977* does not apply to, prevent or interfere with the carrying out of SSD authorised by a development consent.

Section 89K of the EP&A Act lists the authorisations that must be obtained but cannot be refused if they are necessary for carrying out SSD that is authorised by a development consent. These authorisations include (as relevant to the project):

- an EPL under the POEO Act; and
- a consent under section 138 of the NSW *Roads Act 1993* from the relevant road authority.

## 2.3 Commonwealth legislation

The Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) aims to protect matters of national environmental significance (MNES) including:

- world heritage properties;
- national heritage places;
- Ramsar wetlands of international importance;
- nationally threatened species and ecological communities;
- migratory species;



- Commonwealth marine areas;
- the Great Barrier Reef Marine Park;
- nuclear actions (including uranium mining); and
- a water resource, in relation to coal seam gas development and large coal mining development.

A search of the Commonwealth Protected Matters Search Tool indicates that there are no World Heritage Properties or National Heritage Places within the vicinity of the site. The Commonwealth Protected Matters Search Tool and preliminary ecological investigations indicate that there is potential for listed threatened species and listed migratory species to occur within the vicinity of the site.

If an action would, or is likely to, have a significant impact on any MNES, it is deemed to be a 'controlled action' and requires approval from the Commonwealth Environment Minister or the Minister's delegate. To determine whether a proposed action will or is likely to be a controlled action, a Referral or Proposed Action is submitted to the Commonwealth Department of the Environment and Energy (DoEE – formerly Department of the Environment).



## 3 Project description

### 3.1 Overview

The project includes the development, construction and operation of a solar PV electricity generation facility, which comprises the installation of PV solar panels and associated infrastructure on the site. Ultimately, the installed capacity will depend on the development footprint (determined during preparation of the EIS), the available grid capacity, the economics of scale and grid connection, and energy market demand.

As an indication of scale based on current technologies, the estimated total installed capacity could be in the order of 100 megawatts (MW), which would be generated by around 300,000 PV solar panels.

The project will connect to the Transgrid 220 kV electricity distribution network that originates at the Balranald 220 kV Substation (see Figure 1.2). The electricity and associated environmental products that are generated from the project will be sold to one or more of a registered energy retailing organisation, large energy user (governmental or private) or to the National Electricity Market that is managed by the Australian Energy Market Operator.

### 3.2 Project components

The project comprises a number of key components:

- a network of PV solar panel arrays;
- electrical collection systems, switchyard and control room;
- a management hub, including demountable offices and amenities and equipment sheds;
- parking and internal access roads; and
- connection infrastructure to the Balranald 220 kV Substation.

The site boundary presented in Figure 1.2 is a broad footprint which has been identified during initial design and planning stages. During the preparation of the EIS, the development footprint within the site boundary will be refined on the basis of grid connection studies, environmental constraints identification and further engineering assessment and design of project infrastructure.

The project will also require the construction of connection infrastructure to deliver electricity produced at the site to the electricity grid. As identified above, the point of connection to the electricity distribution network will be the Balranald 220 kV Substation, which is positioned between the site's eastern and western components (Figure 1.2).

#### 3.2.1 PV solar panels

The project will install PV solar panels, arranged in a series of rows positioned to maximise the use of the solar resource available at the site. Panels are expected to be constructed in either fixed tilt or single axis tracking configuration. The later configuration will allow the PV panels to rotate from east to west during the day tracking the sun's movement. Panels will be fixed to and supported by ground-mounted framing. The height of the solar panel rows will be approximately 2 m. Initial investigations indicate approximately 300,000 PV solar panels could be accommodated at the site, however as stated above, this will depend on factors including available technologies, the size of the development footprint, the available grid capacity, economics of scale and grid connection, and energy demand.



### **3.2.2 Electrical collection system and switchyard**

The PV panels will be connected in series and the electricity generated by the project will be internally directed via underground electrical collection systems to a central electrical switchyard where it will be exported off-site to the electricity grid.

The on-site electrical collection systems will be placed underground in standard electrical conduit trenches of between 600 to 1,200 mm in depth. The electrical cabling necessary to connect the solar panels in series will be positioned in cable trays mounted underneath the panels.

### **3.2.3 Management hub**

The project includes the development of a management hub, from which operation of the infrastructure will be managed. Structures will include demountable offices and an operational control building, staff amenities, and equipment storage sheds. This will be the receipt point for all equipment delivery during construction and all management activities during the project's operational period.

## **3.3 Construction**

Construction of the project will take approximately 12 months from the commencement of site works. Due to the site's relatively flat terrain and predominantly cleared landscape, minimal site preparation and civil works are anticipated prior to construction. During the peak construction period, a workforce of approximately 100 people will be required on site. Construction activities will be undertaken during standard daytime construction hours.

## **3.4 Operation and decommissioning**

Once operational, the project will require around five full-time equivalent employees. The primary operational activities conducted on site will include day-to-day routine operations, maintenance of infrastructure, and general site maintenance and security.

The operational lifespan of the project will be in excess of 25 years, depending on the nature of solar PV technology and energy markets. Once the project reaches the end of its investment and operational life, the project infrastructure will be decommissioned and the site returned to its pre-existing land use, or other land use in consultation with the landowner, as far as practicable.

## **3.5 Network connection**

The infrastructure required for connection to the local electricity distribution network between the site and the Balranald 220 kV Substation will be dependent on the requirements of the network service provider, outcomes of grid connection studies which are currently in progress, transmission line route selection and engineering, and environmental and landholder constraints. The Balranald 220 kV Substation is positioned between and adjacent to the site's eastern and western components (see Figure 1.2).

The suitability of existing easements connecting to the Balranald 220 kV Substation will be investigated to identify any opportunities for co-location of infrastructure and utilisation of pre-disturbed areas dedicated to transmission of high voltage electricity and ongoing vegetation maintenance activities required for safe operation of the electricity infrastructure. Similarly, the construction and operation of the 220kV grid connection, via a 220kV line switchbay will be wholly developed at TransGrid's existing substation and telecommunication facilities.



## 4 Stakeholder engagement

OVERLAND will engage with stakeholders during preparation of the EIS. Stakeholder groups, with an interest in the project, include:

- NSW Department of Planning and Environment (DP&E);
- NSW Department of Industry – Division of Resources and Energy (DRE);
- NSW Roads and Maritime Services (RMS);
- NSW Office of Environment and Heritage (OEH);
- NSW Environment Protection Authority (EPA);
- Balranald Shire Council (BSC);
- Murray River Council (MRC) (formerly Wakool Shire Council);
- TransGrid;
- local land owners, farm managers and nearby residents; and
- Aboriginal stakeholders.

OVERLAND has developed a positive working relationship with BSC as part of the process to identify and secure a suitable site for the project, and will look develop similar relationships with the recently formed MRC. A letter of support for the project from BSC is included as Appendix A.

Engagement activities with the stakeholders identified above will be developed as part of a stakeholder engagement program that will be prepared following receipt of the SEARs. A number of different resources will be used to inform the development of the stakeholder engagement program, including the NSW Government's Community Attitudes to Renewable Energy report (OEH 2015). The results of surveys conducted as part of that report indicate high levels of support among communities for the construction of solar farms throughout NSW (OEH 2015).

Outcomes of engagement activities will be addressed in the EIS and relevant technical studies.



## 5 Preliminary environmental impact assessment

### 5.1 Issues identification

An initial review of environmental constraints has been undertaken to identify the issues which require detailed consideration as part of the project design process and technical studies supporting the EIS for the project.

### 5.2 Biodiversity

#### 5.2.1 Existing environment

The site has been highly modified by previous and current land uses, including land clearing, cropping, livestock grazing and weed invasion. This disturbance history has resulted in a mosaic of modified areas and native vegetation communities.

OVERLAND has engaged the services of Biosis Pty Ltd to complete an initial ecological constraints assessment for the western parcel of the site. A desktop assessment has been completed for the eastern portion. All land to be used for the project will be subject to detailed investigations and documented within the EIS.

The purpose of the initial constraints assessment was to identify:

- the extent of native vegetation and key terrestrial fauna habitat present on the site; and
- the likelihood of threatened species, populations or ecological communities to occur on the site.

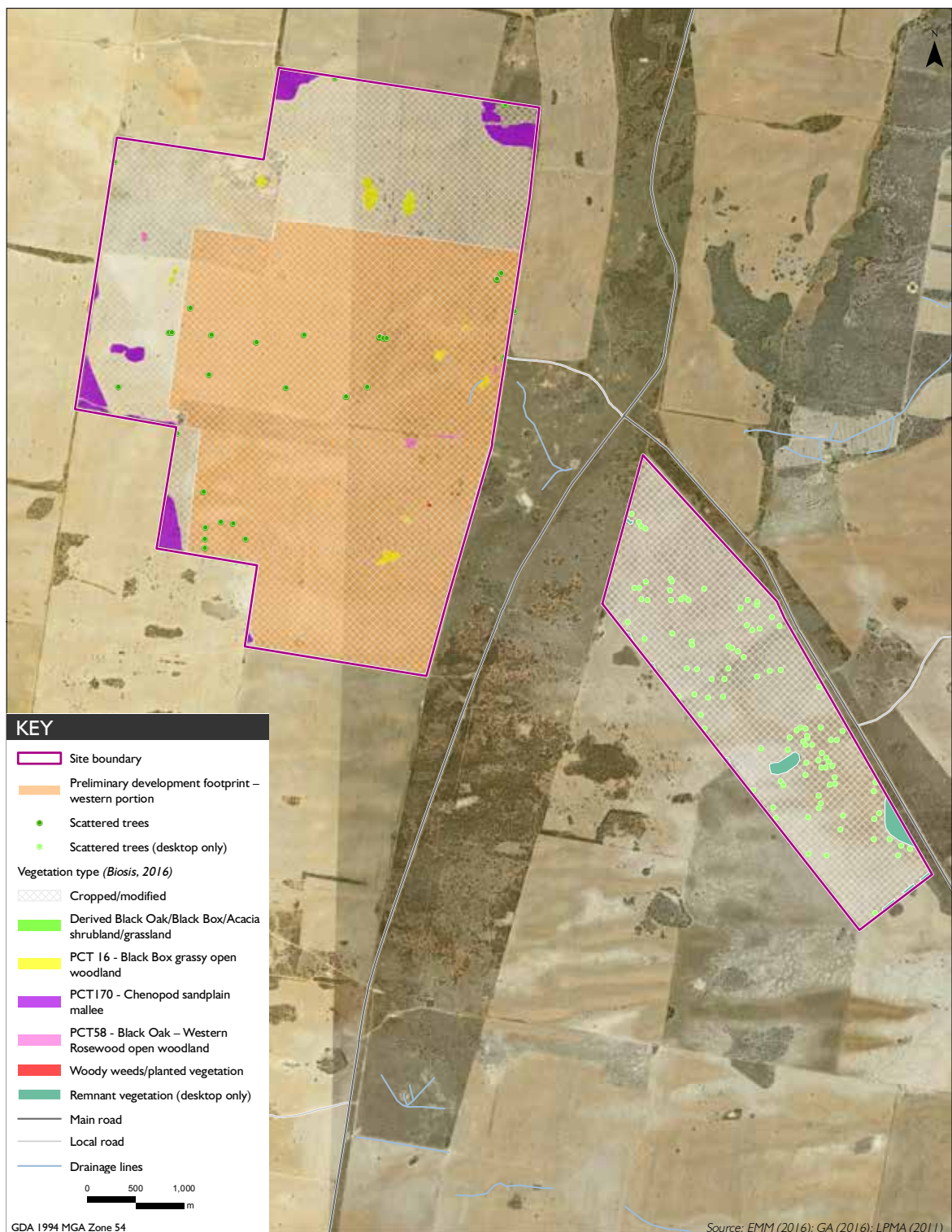
The site is within the:

- Murray Darling Depression Interim Biogeographic Regionalisation for Australia (IBRA) Region;
- Darling Depression IBRA subregion; and
- Murrumbidgee Catchment Management Area.

Preliminary field surveys have confirmed the presence of several plant community types (PCTs) on the site's western portion (see Figure 5.1). These comprise:

- Black Box grassy open woodland of rarely flooded depressions, south western NSW (PCT16);
- Black Oak – Western Rosewood open woodland on deep sandy loams of Murray-Darling Depression and Riverina Bioregions (PCT58);
- Chenopod sandplain mallee woodlands/shrublands of the arid and semi-arid (warm) zones (PCT170); and
- Other vegetation not classified as PCTs including derived Black Oak/Black Box/Acacia shrubland/grassland, scattered remnant trees and cropped/highly modified areas, woody weeds and planted vegetation.

The eastern portion contains two areas of remnant vegetation, as well as scattered trees across the site (Figure 5.1).



**Vegetation communities at the site** | Limondale Sun Farm | Request for SEARs | Figure 5.1



None of the vegetation communities mapped across the site's western portion are representative of threatened ecological communities listed under the Commonwealth EPBC Act or the NSW *Threatened Species Conservation Act 1995* (TSC Act).

No threatened flora species or endangered flora populations listed under the EPBC Act or TSC Act were recorded during preliminary field surveys of the site's western portion. Given the highly modified nature of the site, the occurrence of significant populations of threatened flora is unlikely. If present, these species would be restricted to larger remnant patches and the adjacent road reserve of Yanga Way.

Major Mitchell's Cockatoo (listed as vulnerable under the TSC Act) was recorded during the preliminary field survey and is likely to nest in hollow-bearing trees on the site's western portion. A number of threatened fauna species may utilise the site on occasion for foraging and nesting purposes. A range of threatened woodland birds may also utilise the site. These species are generally mobile and are likely to utilise larger patches of remnant vegetation on the site or in the adjacent road reserve of Yanga Way.

Threatened biota listed under the EPBC Act and/or the TSC Act that are considered to have at least a medium likelihood of occurring within the site are listed in Table 5.1. Most of these species are highly mobile woodland birds or raptors that would be restricted to larger stands of remnant vegetation on the site or the adjacent road reserve of Yanga Way.

**Table 5.1 Threatened biota considered to have a medium or high likelihood of occurring within the site**

| Scientific name                                  | Common name                               | Status TSC Act                          | Status EPBC Act |
|--------------------------------------------------|-------------------------------------------|-----------------------------------------|-----------------|
| <i>Austrostipa metatoris</i>                     | Spear-grass                               | Vulnerable                              | Vulnerable      |
| <i>Polytelis anthopeplus monarchoides</i>        | Regent parrot (eastern sub-species)       | Endangered species (Part 1, Schedule 1) | Vulnerable      |
| <i>Santalum murrayanum</i>                       | Bitter Quandong                           | Endangered species (Part 1, Schedule 1) | -               |
| <i>Certhionyx variegatus</i>                     | Pied Honeyeater                           | Vulnerable                              | -               |
| <i>Circus assimilis</i>                          | Spotted Harrier                           | Vulnerable                              | -               |
| <i>Climacteris picumnus subsp. victoriae</i>     | Brown Treecreeper (eastern subspecies)    | Vulnerable                              | -               |
| <i>Daphoenositta chrysoptera</i>                 | Varied Sittella                           | Vulnerable                              | -               |
| <i>Falco subniger</i>                            | Black Falcon                              | Vulnerable                              | -               |
| <i>Lophoictinia isura</i>                        | Square-tailed Kite                        | Vulnerable                              | -               |
| <i>Hieraaetus morphnoides</i>                    | Little Eagle                              | Vulnerable                              | -               |
| <i>Lophochroal leadbeateri</i>                   | Major Mitchell's Cockatoo                 | Vulnerable                              | -               |
| <i>Pachycephala inornata</i>                     | Gilbert's Whistler                        | Vulnerable                              | -               |
| <i>Pomatostomus temporalis subsp. temporalis</i> | Grey-crowned Babbler (eastern subspecies) | Vulnerable                              | -               |
| <i>Stagonopleura guttata</i>                     | Diamond Firetail                          | Vulnerable                              | -               |



### 5.2.2 Assessment approach

The potential impacts to biodiversity from the project will be assessed in accordance with the *Framework for Biodiversity Assessment: NSW Biodiversity Offsets Policy for Major Projects* (the FBA) (OEI 2014), which provides the framework for assessment of biodiversity impacts for SSD projects. This will include:

- A review of the initial biodiversity constraints and field survey results to determine the threatened species and communities that require targeted field surveys. Searches will be undertaken for threatened species, populations and communities using the Atlas of NSW Wildlife, the EPBC Act Protected Matters Search Tool and local vegetation mapping datasets.
- Native vegetation will be mapped and assessed in accordance with the method described in Section 5.3.2 of the FBA. Surveys will target areas of native vegetation in the proposed development footprint to identify the likely PCTs that may need to be cleared and offset. Surveys will also identify cleared lands (ie exotic pastures) that do not need to be offset.
- Biobanking calculations will be completed based on the results of the field survey. The calculations will be based on the disturbance footprint to determine the number of credits the project is likely to generate.
- A Biodiversity Assessment Report (BAR) will be prepared in accordance with the reporting requirements of the FBA.

The EIS and BAR will include constraints mapping to demonstrate the biodiversity values on the site and will demonstrate how impacts to biodiversity have been avoided, mitigated and if required, offset.

## 5.3 Aboriginal cultural heritage

### 5.3.1 Existing environment

OVERLAND has engaged the services of Biosis Pty Ltd to complete an initial assessment of Aboriginal cultural heritage constraints for the western parcel of the site. As described in Section 5.2.1, the eastern parcel of land has been included within the project subsequent to completion of this assessment. It is considered that constraints identified within the western parcel of land are representative of the eastern parcel of land and the local area. Notwithstanding, all land to be used for the project will be subject to detailed investigations and documented within the EIS.

The site is in the Murray Darling Depression bioregion of south-west NSW, an area characterised by its ancient landscape and ancient lakes and waterways. Aboriginal occupation of the region dates back to around 50,000 years ago (Hiscock 2008, p.44). Previous reports indicate that Aboriginal occupation of the area occurred from pre-historic to post contact times and material remains (such as stone tools, hearths and middens) are considered to be dense in this bioregion.

A number of Aboriginal cultural heritage investigations have been conducted in the region. The Murrumbidgee scalded plains contain resources commonly used by Aboriginal people in the past and evidence of this use may be found in the eroding landscape. The soil landscapes within the region, which feature clay pans and scalds, have high potential to contain evidence of Aboriginal occupation of the region including stone tools and hearths. There is also potential for culturally modified trees to occur in the region. However, as noted by Witter (2004), in the past 200 years, a large part of the region has been cultivated, which has led to the destruction of archaeological traces through the flattening of mounds and ploughing of the ground surface.

A search of the AHIMS database identified 113 Aboriginal sites within a 5 km search area, centred on the site. A simple analysis of the Aboriginal cultural heritage sites registered within 5 km of the site indicates that the



dominant site types in the surrounding landscape are culturally modified trees (54%) and hearths (12%). There are no Aboriginal sites within the site boundary. There is one Aboriginal site on land adjacent to the north-western boundary of the site. Further, there are four Aboriginal sites within the TSR and adjacent to the 220 kV substation. Based on an initial desktop review, there is potential for Aboriginal cultural heritage sites to occur in the vicinity of the site.

### 5.3.2 Assessment approach

The Aboriginal cultural heritage assessment (ACHA) will be completed in accordance with the Draft Guidelines for Aboriginal Cultural Heritage Impact Assessment and Community Consultation (the Draft Guideline) (DEC 2005). The following will be undertaken as part of the ACHA:

- review of OEH databases and any relevant literature;
- field survey of the site to identify places or items of Aboriginal cultural heritage significance;
- an assessment of Aboriginal cultural heritage items or places identified during the field survey;
- a cultural assessment to investigate whether there are any living cultural knowledge holders who may have cultural knowledge relevant to the assessment;
- consultation with Aboriginal stakeholders with guidance from the Aboriginal Cultural Heritage Consultation requirements for proponents (DECCW 2010); and
- development of measures to avoid and mitigate potential impacts to Aboriginal cultural heritage, if required.

## 5.4 Land use

### 5.4.1 Existing environment

The project is within both the Balranald Shire LGA and Murray River LGA, which cover an area of 21,693 km<sup>2</sup> and 11,865 km<sup>2</sup>, respectively, in the Murray Darling Depression bioregion of south-western NSW. The site is part of the Murrumbidgee catchment. Land use within this catchment is dominated by extensive agricultural operations with grazing occupying 64.4% of the total catchment area (Office of Water 2011). Dryland cropping and horticulture (15.5%), conservation (6.4%) and irrigation (5.1%) are also prevalent across the catchment area (Office of Water 2011).

Dunefields, sandplains and undulating plains dominate the landscape of the Murray Darling Depression bioregion (NPWS 2003). The site is located in a Mallee dune-swale landscape with grey to brown clay/loam soils prevalent in swales and brown to orange sandy/loam soils prevalent on dune crests. The soil landscapes present on the site include the Murrumbidgee scalded plains, Murrumbidgee depression plains and Mallee cliffs sandplains.

The site has been highly modified by past disturbances associated with land clearing, cropping, livestock grazing and weed invasion. The site is surrounded by several large farming properties. Existing high voltage electricity infrastructure is present in the vicinity of the site, with TransGrid's 220 kV transmission line located along the southern boundary of the eastern portion of the site and traversing the north-western corner of the western portion of the site (see Figure 1.2), and the Balranald 220 kV Substation adjacent to Yanga Way.

One mineral tenement which encompasses the site was identified in search of the NSW Department of Industry – Resources Energy DIGS database, an exploration licence issued under the NSW *Mining Act 1992* (EL7626) held by Iluka Resources Limited. EL7626 covers an extensive area, extending from Balranald in the north to Kyalite in the south, a distance of around 30 km.



Yanga National Park is approximately 1.5 km north-east of the site and covers an area of approximately 76,000 ha. This area is zoned E1 National Parks and Nature Reserves under the Wakool LEP. Murrumbidgee Valley State Conservation Area is approximately 6 km east of the site and covers an area of 34,579 ha. This area is zoned E1 National Parks and Nature Reserves under the Wakool LEP.

#### 5.4.2 Assessment approach

The project will alter the current land use of the site, being agriculture, to electricity generation. At the end of the project's operational life, project infrastructure will be decommissioned and the site may be returned to its pre-existing agricultural land use. It is noted that the 220kV electricity grid connection assets may be retained at the existing Balranald 220kV Substation if:

- they remain relevant to TransGrid's safe and efficient operation of their transmission network;
- ensure TransGrid can continue to comply with network service provider obligations prescribed under the *Electricity Supply Act 1995*; or
- notwithstanding the end of the project's operational life, the grid connection assets remain relevant to the operation of the National Electricity Market.

As the site will not require significant civil works (such as bulk earthworks and re-shaping), the integrity of the land and soil capability is expected to be retained through appropriate land management practises. In order to establish the relevant land and soil capability, a desktop baseline assessment of land and soil capability will be undertaken in the EIS.

### 5.5 Water resources

#### 5.5.1 Existing environment

As discussed in Sections 5.2 and 5.3, the site is within the Murray Darling Depression bioregion, which is characterised by extensive undulating plains, linear and parabolic dunes, and lakes that date back to the Tertiary and Quaternary period. Within NSW, this bioregion is bounded by the Broken Hill Complex, Cobar Peneplain, Riverina and Darling Riverine Plains bioregions (NPWS 2003).

The site is part of the Murrumbidgee catchment and is approximately 7.5 km from the Murrumbidgee River at its closet point (see Figure 1.2). The Murrumbidgee catchment covers an area of 84,000 km<sup>2</sup> and is bordered by the Great Dividing Range to the east, the Lachlan catchment to the north and the Murray catchment to the south (Office of Water 2011). The catchment supports a population of more than 500,000 people, which includes the Australian Capital Territory, NSW's largest inland city and a number of regional cities and towns including Balranald. Within the catchment, the Murrumbidgee River stretches over 1,600 km, flowing westward toward its junction with the Murray River. Close to the site, the river is characterised by a diminishing channel capacity due to the deposition of alluvium (Office of Water 2011). Notably, the channel capacity drops from 30,000 ML/day at Hay to 7,000 ML/day at Balranald (Office of Water 2011).

The Murrumbidgee catchment supports Fivebough and Tuckerbil Swamps, which are both listed as internationally significant under the Ramsar Convention. The Fivebough and Tuckerbil Swamps Ramsar site is approximately 270 km upstream of the site. In addition, the catchment also supports 16 wetlands listed as nationally significant in the Directory of Important Wetlands in Australia (DoEE 2016). Of these wetlands, the Lowbidgee Floodplain is closest to the site, located approximately 5 km north-east of the site. The Lowbidgee Floodplain is the largest area of floodplain wetland remaining in the Murrumbidgee Valley, covering an area of over 2,000 km<sup>2</sup> (Office of



Water 2011). Yanga Lake, which is part of the Yanga National Park and the Lowbidgee Floodplain, is the most significant surface water feature within general proximity of the project (approximately 5 km north-east of the site).

The site's western component is not identified as land subject to flooding within the Flood Planning Area Map under the Balranald LEP. Similarly, the site's eastern component is not identified as flood liable land under the Wakool LEP. The site is outside the boundary of the Lower Murrumbidgee Floodplain Water Management Plan (Hardwick and Maquire 2012). The site is also outside the extent of inundation of its 1904 flood event (Hardwick and Maquire 2012).

The site is within the Lower Murrumbidgee Alluvium groundwater management area which is characterised by an inland alluvial aquifer. Groundwater at the site is of poor quality and is affected by salinity (7,000-35,000 TDS mg/L). It is suitable for limited stock use and commercial and industrial uses (Office of Water 2011). There are two private groundwater bores recorded on the DPI Water database that are located approximately 700 m and 2.5 km to the east of the eastern site boundary (GW404517 and GW032872, respectively). Both of these bores are authorised for stock watering and domestic purposes and would not be affected by the project.

### **5.5.2 Assessment approach**

Potential impacts to water resources from the project are expected to include demand for water during the construction of the project, as well as for land management during operation. Water demands will be relatively small, as the construction and operation of a solar PV electricity generation facility are non-water intensive. If surface water or groundwater extraction is required to meet the project's demand for water, an assessment of impacts to the water sources will be included in the EIS.

## **5.6 Traffic**

### **5.6.1 Existing environment**

The primary road transport routes in the vicinity of the site are Yanga Way, Balranald Road and the Sturt Highway (see Figures 1.1 and 1.2).

The eastern and western portions of the site are divided by Yanga Way. Yanga Way is a state rural road that provides an important link between Balranald and the Sturt Highway in the north and Tooleybuc and the Murray Valley Highway in the south. The road extends over 50 km and crosses the border of NSW and Victoria close to its junction with the Murray Valley Highway. At the site, Yanga Way is a single carriageway with a sealed surface. It is a designated B-Double route.

Balranald Road provides the eastern boundary of the site's eastern component and extends over 60 km from its junction with Yanga Way in the north to the town of Moulamein in the south. At the site, Balranald Road is unsealed and unmarked. It is a designated B-Double route.

The Sturt Highway, situated to the north-east of the site, is an Australian national highway that covers significant areas of NSW, Victoria and South Australia. The majority of the Sturt Highway's 947 km extent is a single carriageway. The Sturt Highway is roughly aligned to the Murrumbidgee River in NSW and provides the shortest route between Sydney and Adelaide.

The Mallee and Murray Valley highways are in the wider region, in Victoria, just south of the border with NSW. The Mallee Highway, south-west of the site, is a rural two-lane highway and is also part of the shortest route between Sydney and Adelaide. The Mallee Highway extends over 377 km and runs from the Dukes Highway in Taillem Bend, South Australia in the west through to its eastern terminus at the Murray Valley Highway near Piangil, Victoria at the border with NSW.



The Murray Valley Highway, also south-west of the site, is a state highway that covers parts of Victoria and NSW. The majority of the Murray Valley Highway's 663 km extent is aligned with the Murray River, connecting the towns of Robinvale, Swan Hill, Kerang, Echuca, Yarrawonga, Wodonga and Tallangatta. Its easternmost extent connects with the Mallee Highway and Yanga Way, near Piangil.

### 5.6.2 Assessment approach

Traffic generation is predominantly restricted to the construction stage of the project, with the site establishment and delivery of infrastructure likely to generate the greatest number of traffic movements during the life of the project. During operation, traffic is predicted to be limited to employee vehicle movements for in the order of five employees, plus a small number of daily vehicle movements associated with ongoing maintenance and associated activities.

A traffic assessment will be undertaken to assess potential impacts associated with traffic generation from the construction of the project in accordance with the relevant guideline Guide to Traffic Generating Developments (RTA 2002). It will include:

- existing traffic levels on transport routes and intersections likely to be used by the project;
- predicted traffic generation during construction;
- potential impacts to road and intersection capacity during construction; and
- potential road safety issues.

As traffic generation during operation will be minimal, a detailed assessment of operational traffic impacts is not considered to be required.

## 5.7 Air quality

### 5.7.1 Existing environment

The site is in a rural setting approximately 14 km south of the township of Balranald. Both the Balranald Shire and Murray River LGAs are in areas heavily dependent on agricultural activities, which is likely to influence local and regional air quality. The area surrounding the site is sparsely populated. In 2011, the population density within the Balranald Shire LGA and Wakool Shire LGA was 0.1 people/km<sup>2</sup> and 0.5 people/km<sup>2</sup>, respectively, which was significantly lower than the NSW average (9.1 people/km<sup>2</sup>) (ABS 2014; ABS 2016). Consequently, existing sources of air pollution within the area are limited and are primarily comprised of dust and vehicle and machinery exhaust emissions associated with transportation and agricultural activities. Bushfires are also a source of seasonal dust generation (OEH 2016).

Emissions to the atmosphere from the project will largely be associated with dust and vehicle and machinery exhaust emissions during construction, and the maintenance of plant and equipment on site. The project will be approximately 14 km south of the township of Balranald, which is the nearest considerable concentration of sensitive receptors. There are a total of six receptors within 6.5 km of the site at the closest boundaries (see Figure 1.2). It is noted that two of these receptors are dwellings of landowners who own land within the site boundary.



### 5.7.2 Assessment approach

The project is not anticipated to generate significant air quality impacts during construction or operation. Mitigation measures to manage dust generation on the site would be required during construction activities and as part of regular land management activities during operation. The EIS will detail measures to be implemented during the life of the project to minimise dust emissions. As impacts during construction would not be significant, and would be temporary in nature, a detailed air quality assessment is not considered to be required as part of the EIS.

## 5.8 Noise

### 5.8.1 Existing environment

Land use in the site's surrounding area is predominantly agricultural. Given the project's rural setting, background noise is likely to be low and characterised by agricultural activities and associated machinery, with minimal background wildlife noise also expected. Residential dwellings close to Yanga Way and Balranald Road would likely be subject to some road noise.

Noise generated from the project will include construction noise, and noise generated by increased traffic along Yanga Way during the construction period, which will be the main transport route to and from the site. As stated in Section 5.7.1, there are a total of six sensitive receptors within 6.5 km of the site (see Figure 1.2). As noted in Section 5.7.1, two of these receptors are dwellings of landowners own land within the site boundary.

### 5.8.2 Assessment approach

Noise impacts on site during construction and operation are not expected to be significant, given the distance of 1.4 km to the nearest sensitive receptor. Noise during construction will be limited to a period of approximately 12 months, while operational noise sources over the life of the project will be limited. Accordingly, a detailed noise assessment is not considered to be required. The EIS will detail measures to be implemented during construction to minimise noise impacts.

The project would generate traffic movements during the construction stage, which would require vehicles to access the site from Yanga Way. A traffic noise assessment would be included in the EIS to assess noise impacts associated with traffic along Yanga Way during construction. Traffic movements during operation are expected to be minimal.

## 5.9 Visual

### 5.9.1 Existing environment

As previously discussed, the site is within the Murrumbidgee catchment's flat western plains, south of the Murrumbidgee River. Elevation across the site's eastern portion is relatively uniform at approximately 67–70 m above sea level, while the western portion is slightly more variable, ranging between 62–70 m above sea level, with elevation increasing from north to south. The site is divided into its eastern and western components by Yanga Way. The Balranald 220 kV Substation is between the site's eastern and western components.

The site may be partially visible from Yanga Way, Balranald Road and Windomal Road, although views would be partially or fully obscured by existing stands of remnant vegetation in many areas. As stated previously, there are six sensitive receptors within 6.5 km of the site (see Figure 1.2). As noted in Section 5.7.1, two of these receptors are dwellings of landowners who own land within the site boundary. Visibility of project infrastructure will be



dependent on distance, topography and the presence of vegetation which would screen views from a majority of these locations.

The proposed grid connection would be achieved by connection of the project to the existing Balranald 220kV Substation. The assets to be constructed to facilitate this grid connection would be visually consistent with the existing electrical infrastructure in the area.

### **5.9.2 Assessment approach**

Solar panels absorb sunlight and are designed to reflect only a small percentage of the sunlight that they receive. Consequently, glare is not anticipated to be a significant visual impact associated with the project. The EIS will consider likely visual impacts of the project infrastructure from sensitive receptors and nearby road corridors, as well as visibility of lighting during the night time.

## **5.10 Socio-economic**

### **5.10.1 Existing environment**

The Wakool Shire LGA amalgamated with the Murray Shire LGA to form the Murray River LGA in May 2016. Socio-economic statistics for this newly-formed LGA are not available. Given the location of the site's eastern component, reference throughout this socio-economic assessment is made to the Wakool Shire LGA.

The population of the Balranald Shire LGA in 2011 was 2,283 compared to 2,441 in 2006, which reflects a decline of 158 people (or 6.47%) residing in the area (ABS 2007a; ABS 2013a). The population of the Wakool Shire LGA in 2011 was 3,962 compared to 4,362 in 2006, which reflects a decline of 400 people (or 9.17%) residing in the area (ABS 2007b; ABS 2013b). Similarly, the township of Balranald also experienced a decline in population over this period. The percentage of the population who identify themselves as Aboriginal and Torres Strait Islander people within the Balranald Shire LGA (6.8% in 2011) is more than double the state and national average (ABS 2013a). Contrastingly, the percentage of the population who identify themselves as Aboriginal and Torres Strait Islander people within the Wakool Shire LGA (2.4% in 2011) is less than the state and national average (ABS 2013b).

The Balranald Shire LGA's economy is dependent on primary production with sheep, beef cattle and grain farming the area's greatest employer, accounting for 16.5% of the area's employment (ABS 2013a). Though traditionally reliant on dry-land and irrigated agricultural production, the economy has experienced significant diversification to encompass horticulture, viticulture and organic agricultural production. The area's employment profile illustrates this diversification, with fruit and nut trees the second-highest employer, contributing to 8.4% of the area's employment. Tourism has also become an important economic driver with domestic and international tourists attracted to the Yanga and Mungo National Parks, which are situated within the Balranald Shire LGA (BSC 2016). Unemployment within the Balranald Shire LGA (4.3%) is lower than both the NSW and Australian unemployment rates (ABS 2013a).

Balranald, 14 km north of the site, is the largest town in the Balranald Shire LGA with a population of 1,159. Recently, significant developments implemented as part of the Balranald Shire Economic Development Strategy, have fostered economic growth and diversification within the town. The construction of the Visitor and Interpretive Centre, Balranald Hospital and Balranald Central Trade School have each provided additional employment opportunities for the town's population and resulted in varied improvements to the level of services available for locals and visitors alike (BSC 2016).

The Wakool Shire LGA shares a similar economic profile to that described above for the Balranald Shire LGA. The area's most significant employer is also sheep, beef cattle and grain farming, which accounts for 19.8%



of the area's employment (ABS 2013b). Tourists attracted by the area's natural assets, including the Murray and Murrumbidgee Rivers, also make important contributions to the area's agriculturally-dependent economy (WSC 2016). School education (5.3%) and fruit and nut trees (4.0%) are the area's other significant sources of employment (ABS 2013b). Unemployment within the Wakool Shire LGA (3.7%) is lower than both the NSW and Australian unemployment rates (ABS 2013b).

### 5.10.2 Assessment approach

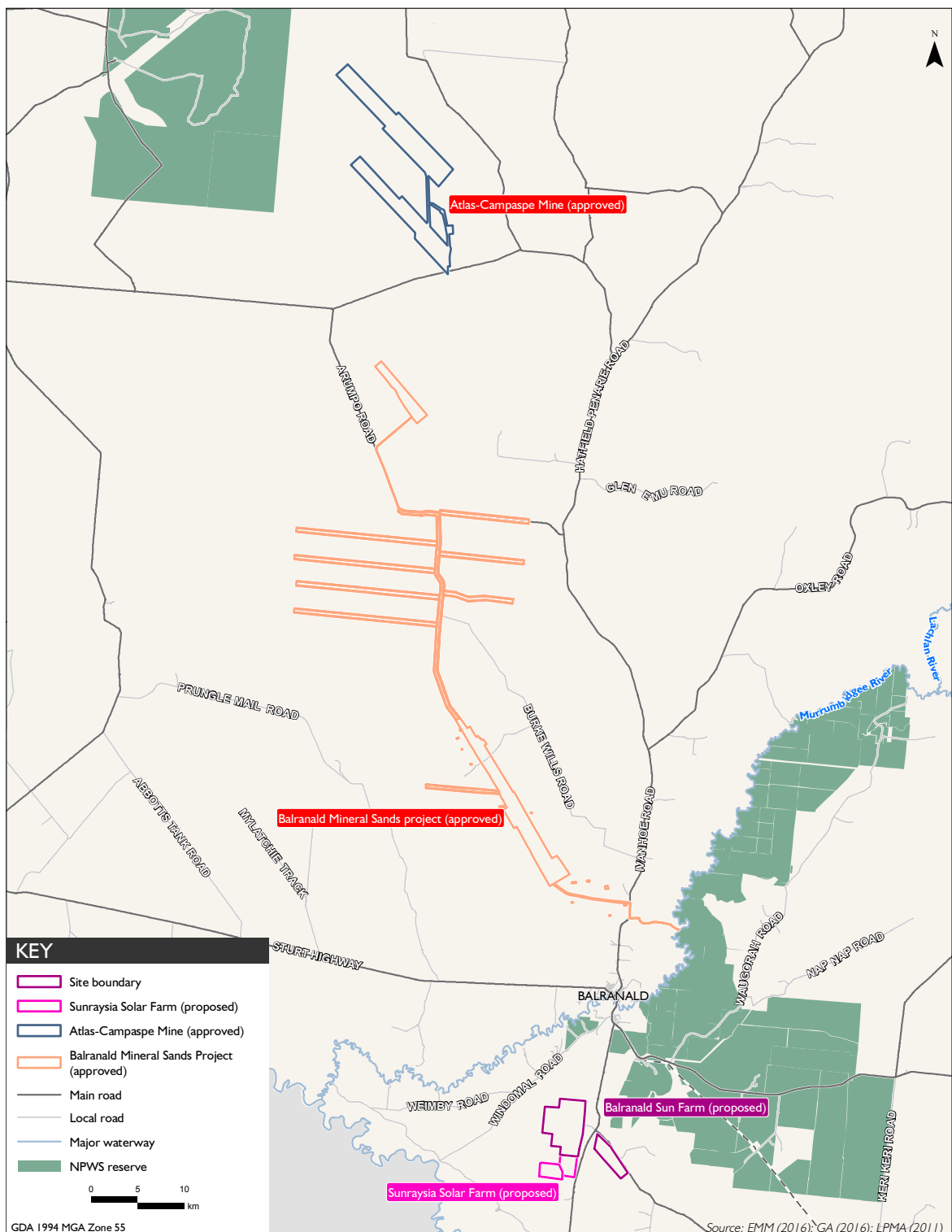
The EIS will include consideration of the socio-economic impacts and benefits of the project, including direct and indirect benefits to the economy during construction and operation.

### 5.11 Cumulative impacts

There are several approved and proposed projects in the Balranald area which may require consideration of cumulative impacts with the Limondale Sun Farm (Figure 5.2). These include:

- the proposed Sunraysia Solar Farm located immediately south of the site – SEARs were issued in June 2016 for this project;
- the Balranald Mineral Sands Project – this mineral sands mine was granted development consent in April 2016, and is located between 12 – 66 km north-west of the town of Balranald; and
- the Atlas Campaspe Mineral Sands Project – this mineral sands mine was granted development consent in June 2014, and is located approximately 80 km north of Balranald.

There is potential for cumulative impacts including traffic generation on the local road network, noise and air quality impacts during construction, visual and socio-economic impacts in the locality. The EIS for the project will consider cumulative impacts of the project with relevant proposed and approved projects in the Balranald region.



Other projects in the region | Limondale Sun Farm | Request for SEARs | Figure 5.2



## **6 Conclusion**

OVERLAND proposes to develop a large scale PV solar generation facility near the town of Balranald in the Balranald Shire and Murray River LGAs, with an estimated generation capacity in the order of up to 100 MW. A detailed analysis of environmental, infrastructure and socio-economic constraints and opportunities will be undertaken during the design phase and preparation of the EIS. OVERLAND is committed to engaging with BSC, MRC, NSW regulators, landowners, Aboriginal stakeholders and the community and will develop and implement a program for stakeholder consultation during the preparation of the EIS.



## Abbreviations

|                 |                                                                            |
|-----------------|----------------------------------------------------------------------------|
| ACHA            | Aboriginal cultural heritage assessment                                    |
| Balranald LEP   | Balranald Local Environmental Plan 2010                                    |
| BAR             | Biodiversity Assessment Report                                             |
| BSC             | Balranald Shire Council                                                    |
| BoM             | Bureau of Meteorology                                                      |
| CL Act          | NSW Crown Land Act 1989                                                    |
| DA              | Development application                                                    |
| DoEE            | Commonwealth Department of the Environment and Energy                      |
| DP&E            | NSW Department of Planning and Environment                                 |
| DRE             | NSW Department Primary Industries – Resources and Energy                   |
| EIS             | Environmental impact statement                                             |
| EMM             | EMM Consulting Pty Limited                                                 |
| EP&A Act        | NSW Environmental Planning and Assessment Act 1979                         |
| EP&A Regulation | NSW Environmental Planning and Assessment Regulation 2000                  |
| EPA             | NSW Environment Protection Authority                                       |
| EPBC Act        | Commonwealth Environment Protection and Biodiversity Conservation Act 1999 |
| EPL             | Environment protection licence                                             |
| FBA             | Framework for Biodiversity Assessment                                      |
| GWh             | Gigawatt hours                                                             |
| ha              | Hectares                                                                   |
| IBRA            | Interim Biogeographic Regionalisation for Australia                        |
| kW              | Kilowatt                                                                   |
| LGA             | Local government area                                                      |
| LPI             | NSW Land and Property Information                                          |
| MNES            | Matters of national environmental significance                             |
| MWh             | Megawatt hour                                                              |
| MRC             | Murray River Council                                                       |
| OEH             | NSW Office of Environment and Heritage                                     |
| OVERLAND        | Overland Sun Farming Company Pty Limited                                   |
| PCT             | Plant community type                                                       |
| POEO Act        | NSW Protection of the Environment Operations Act 1997                      |



|            |                                                                           |
|------------|---------------------------------------------------------------------------|
| PV         | Photovoltaic                                                              |
| REAP       | Renewable Energy Action Plan                                              |
| RF Act     | NSW Rural Fires Act 1997                                                  |
| RMS        | NSW Roads and Maritime Services                                           |
| SEARs      | Secretary's environmental assessment requirements                         |
| SRD SEPP   | State Environmental Planning Policy (State and Regional Development) 2011 |
| SSD        | State significant development                                             |
| TDS        | Total dissolved solids                                                    |
| TSR        | Travelling stock reserve                                                  |
| TSC Act    | NSW Threatened Species Conservation Act 1995                              |
| Wakool LEP | Wakool Local Environmental Plan 2013                                      |
| WM Act     | NSW Water Management Act 2000                                             |
| WSC        | Wakool Shire Council                                                      |



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## **Appendix A**

### **Letter of support from Balranald Shire Council**



# BALRANALD SHIRE COUNCIL

ALL COMMUNICATIONS  
MUST BE ADDRESSED TO  
THE GENERAL MANAGER

Contact: AD:CH:600

70 Market Street, Balranald NSW 2715  
PO Box 120, Balranald NSW 2715

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Email: [council@balranald.nsw.gov.au](mailto:council@balranald.nsw.gov.au)

Web: [www.visitbalranald.com.au](http://www.visitbalranald.com.au)

26th September 2016

John Zammit  
Development Manager  
Overland Sun Farming Company  
L1, 23 Milton Parade  
MALVERN VIC 3144

Attention: John Zammit

Dear John,

**Re: Letter of Support for Limondale Sun Farm Development in Balranald Shire**

Balranald Shire Council confirms contact with Overland Sun farming with regard to the Limondale Sun Farm development proposal within the shire. Council is aware that a project of this scale will bring considerable economic stimulus to the Shire, both during and after the construction.

Following a review of the preliminary information on the project Council offers it's in principle support to Overland Sun Farm and offers no objection providing the prescribed planning approval process is followed.

Yours faithfully,

Aaron Drenovski  
**GENERAL MANAGER**



**Overland Sun Farming Company Pty Ltd**

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