STATEMENT OF ENVIRONMENTAL EFFECTS

Blayney 4C & 7C Solar Farm + BESS and boundary adjustment

Chris Grose/Beyond Zero Emissions

for EDPR Australia Pty Ltd

18 July 2025

Zenith TOWN PLANNING

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Project details

Project number	**1122**
Project title	Blayney 4C & 7C Solar Farm + BESS and boundary adjustment
Document title	Statement of Environmental Effects
Property	Lots 74 and 83 DP 750390, 180 Greghamstown Road, Blayney NSW
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Authorship: The author of this report, Allen Grimwood, is a director of Zenith Town Planning Pty Ltd and has been practicing in the field of urban and regional planning since 1994. Allen specialises in assessing development proposals for the development of regional scale renewable energy, waste management and extractive industry projects. This report has been prepared in full by the author without the assistance of AI.

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EXECUTIVE SUMMARY

This Statement of Environmental Effects supports an application to Blayney Shire Council to develop two 4.99 MWAC Tracker System solar farms and battery energy storage system (BESS). The property consists of two existing lots: Lot 74 DP750390, designated for the *Blayney 4C* solar farm site, and Lot 83 DP750390, designated for the *Blayney 7C* site. The current size of each of the lots is 16.4 hectares and a minor boundary adjustment is proposed to provide access to the northern solar farm site (Blayney 7C). The land has been utilised for cattle grazing.

The proponent is EDPR Australia Pty Ltd. The application is for regionally significant development that needs consent and is to be determined by the Western Regional Planning Panel. The application is not integrated development as no other approvals are required to be issued under section 4.46 of the *Environmental Planning and Assessment Act 1979*.

There are to be approximately 10,300 solar modules per site supported by ancillary infrastructure enclosed within a security fence and partially within landscape screening. Access is to be via an unnamed road off Marshalls Lane into the project site.

During the 4 month construction phase, there is expected to be approximately 50 personnel working on-site, with around 30 personnel present on-site at any one time. The typical working hours will be from 7.00am to 4.00pm, Monday through Friday. The construction phase for both sites is expected to take approximately 4 months in total. Once operational the site will be unmanned and maintenance would to be carried out quarterly, or as required, by a crew of 2 to 3 people.

The operational life of the solar farms is anticipated to be approximately 35 years, depending on various factors. The solar panels and related infrastructure will be decommissioned and removed upon cessation of operations. This is likely to occur within two years of the end of the project. The site can then be returned to the pre-development land use or as agreed upon.

The site selection process has involved liaison with Blayney Shire Council officers; identification of environmental and topographical constraints; existence of necessary infrastructure including accessways, power lines and sub-stations; proximity to the settlement of Blayney to enable supply of power direct to the township; sufficient cleared land area; willingness of the land owner to develop the property and enter lease arrangements to facilitate the solar farm; and the availability of solar resources.

The land is zoned RU2 Rural Landscape under *Blayney LEP 2012*. The development is defined as *electricity generating works* which means a building or place used for the purpose of making or generating electricity - a use prohibited in zone RU2 under provisions of *Blayney LEP 2012* but permitted with consent by *SEPP (Transport and Infrastructure) 2021*

The township of Blayney is not mapped as a 'regional city' in *SEPP (Transport and Infrastructure) 2021*. However, impacts on scenic quality and landscape character have been assessed and will be mitigated or minimized by vegetation screening of the solar array. The project site is not identified in *Blayney Shire Settlement Strategy* as an urban release area for the expansion of Blayney township. It was earmarked for investigation for industrial expansion by the *North Blayney Industrial Strategy* but this has not occurred. The proposed development will not interfere with or prevent the planned growth of Blayney.

Although not located within the Central West Renewable Energy Zone, the proposal is not inconsistent with the planning priorities, goals and actions of the *Central West and Orana Regional Plan 2041* and the *Blayney Local Strategic Planning Statement*. The project links with Council's goals to facilitate renewable energy generation to power local businesses and households as stated in the *Renewable Energy Action Plan*.

Key issues are potential impacts on biodiversity, management of water issues, access to the site and traffic impacts, the effects of noise emissions, impacts on agricultural uses, and impacts on landscape and scenic amenity. The likely impacts of development have been considered and measures recommended to avoid, minimise or mitigate these impacts.

The use is suited to a rural location due to the need for a large land area and the ability to connect to the local electrical transmission network. The addition of a solar farm to the semi-rural area of Blayney would not detract unreasonably from local amenity or the natural environment.

Electricity generated by the system will be directed to the settlement of Blayney via existing electrical infrastructure to contribute to the supply of electricity for use by households and businesses. The solar farm will generate community economic benefits through local employment opportunities during the planning and construction phases as well as maintenance and inspection jobs once operational. The land may continue to be used for agriculture and returned to its current condition once the facility is decommissioned. The cumulative impacts of the proposed development are minor as the proposal is a small town-scale facility. Other solar farms have been developed in neighbouring areas but there have been no other solar farm proposals in the vicinity of the project site. There is sufficient capacity in the electricity grid system to accommodate the development as evidenced by contractual arrangements made by EDPR Australia with Essential Energy to connect to infrastructure.

1. INTRODUCTION

1.1 Overview

The purpose of this Statement of Environmental Effects is to support an application to Blayney Shire Council to develop a solar farm and battery energy storage system (BESS) at Lots 74 and 83 DP 750390 No. 180 Greghamstown Road, Blayney, referred to as the Blayney 4C & 7C Solar Farm + BESS. The application is for regionally significant development that needs consent and is to be determined by the Western Regional Planning Panel. A minor boundary adjustment is also proposed to provide access to the 7C solar system.

The purpose of this report is to assist Council's assessment of the proposal against the matters for consideration listed in section 4.15 of the *Environmental Planning and Assessment Act 1979*.

The application is not integrated development as no other approvals are required to be issued under section 4.46 of the *Environmental Planning and Assessment Act 1979*. Table 1 below is a checklist of this application against relevant sections of legislation that may generate the need for a separate approval.

Table 1: Integrated development checklist

Act	Provision	Approval	The proposal	Integrated (Y/N)
Coal Mine Subsidence Compensation Act 2017	s 22	approval to alter or erect improvements, or to subdivide land, within a mine subsidence district	The land is not designated a mine subsidence district	No
Fisheries Management Act 1994	s 144	aquaculture permit	It is not proposed to carry out aquaculture	No
	s 201	permit to carry out dredging or reclamation work	It is not proposed to carry out dredging or reclamation work	No
	s 205	permit to cut, remove, damage or destroy marine vegetation on public water land or an aquaculture lease, or on the foreshore of any such land or lease	It is not proposed to remove, damage or destroy marine vegetation	No
	s 219	permit to— (a) set a net, netting or other material, or	It is not proposed to carry out any works across or	No

Act	Provision	Approval	The proposal	Integrated (Y/N)
		(b) construct or alter a dam, floodgate, causeway or weir, or (c) otherwise create an obstruction, across or within a bay, inlet, river or creek, or across or around a flat	within a bay, inlet, river or creek, or across or around a flat	
Heritage Act 1977	s 58	approval in respect of the doing or carrying out of an act, matter or thing referred to in s 57(1)	The application does not relate to an interim heritage order or an item listed on the State Heritage Register	No
Mining Act 1992	ss 63, 64	grant of mining lease	The development does not involve an application for a mining lease	No
National Parks and Wildlife Act 1974	s 90	grant of Aboriginal heritage impact permit	Due diligence indicates that there is no item or place of Indigenous significance and an application is not being made for a permit	No
Petroleum (Onshore) Act 1991	s 16	grant of production lease	The development does not involve an application for a petroleum production lease	No
Protection of the Environment Operations Act 1997	ss 43(a), 47 and 55	Environment protection licence to authorise carrying out of scheduled development work at any premises.	The application does not involve scheduled development	No
	ss 43(b), 48 and 55	Environment protection licence to authorise carrying out of scheduled activities at any premises (excluding any activity described as a "waste activity" but including any activity described as a "waste facility").	The application does not involve scheduled activities	No
	ss 43(d), 55 and 122	Environmental protection licences to control carrying out of non-scheduled activities for the purposes of regulating water pollution resulting from the activity.	The application does not involve non-scheduled activities that would generate water pollution	No
Roads Act 1993	s 138	consent to— (a) erect a structure or carry out a work in, on or over a public road, or	There are no works proposed or required to be	No

Act	Provision	Approval	The proposal	Integrated (Y/N)
		(b) dig up or disturb the surface of a public road, or (c) remove or interfere with a structure, work or tree on a public road, or (d) pump water into a public road from any land adjoining the road, or (e) connect a road (whether public or private) to a classified road	undertaken on a classified road	
Rural Fires Act 1997	s 100B	Authorisation under section 100B in respect of bush fire safety of subdivision of land that could lawfully be used for residential or rural residential purposes or development of land for special fire protection purposes	The application does not involve subdivision for a residential use or a special fire protection purpose	No
Water Management Act 2000	ss 89, 90, 91	water use approval, water management work approval or activity approval under Part 3 of Chapter 3	The proposed development is located in close proximity to two watercourses. However, these watercourses are intermittent, do not exhibit the features of a watercourse and are not termed 'waterfront land'. The application does not involve a water use approval or water management work approval	No

1.2 Scope of the report

This Statement has been prepared having regard to information that has been sourced from the Council's website, the NSW legislation website, SIX Maps, the website of the Department of Planning, Housing & Infrastructure, the Planning Portal Spatial Viewer and SEED (Sharing and Enabling Environmental Data). All information referenced in this Statement has been sourced from publicly available documents or websites and from expert reports produced to support the application that are listed in Table 2. A Property Report sourced from the Planning Portal is appended as Attachment A.

This statement is accompanied by the documents listed in Table 2 which support the development application and have been submitted under separate cover.

Note that the findings and recommendations of expert reports that accompany the application are summarised in this Statement. Further information about these matters should be sought from the original documents.

Table 2: Development application documents

Plan/Doc No.	Plan/Doc Title	Prepared by	Issue	Date
-	Blayney 4C & 7C 2x5MW Solar Farm + BESS Drawing Pack & FAQs	EDPR Australia Pty Ltd	various	various
25022	Plan of Subdivision of Lot 74 and Lot 83 in DP 750390	-	Draft	29/04/2025
MAC180781-28RP1V1	Noise Assessment	Muller Acoustic Consulting Pty Ltd	-	03/04/2025
241054.01FA	Traffic and Parking Impact Statement	McLaren Traffic Engineering	-	18/07/2025
-	Water Assessment	EDPR Australia Pty Ltd	3	26/05/2025
24136	Glare and Glint Study Assessment Report & ForgeSolar Glare Analysis	ITP Renewables	2	12/05/2025
-	Waste and Decommissioning Assessment	EDPR Australia Pty Ltd	3	02/05/2025
-	Fire and Hazard Assessment	EDPR Australia Pty Ltd	3	02/07/2025
-	Biodiversity Inspection Report	Red-Gum Environmental Consulting Pty Ltd	2	10/02/2025
1122	Visual Impact Assessment	Zenith Town Planning Pty Ltd	-	11/02/2025

1.3 The proponent

The proponent of the project is EDPR Australia Pty Ltd, formerly ITP Development Pty Ltd. Based in Canberra with an office in Sydney, EDPR Australia Pty Ltd has a growing portfolio of renewable developments across regional Australia, specialising in both large and town-scale solar farms and BESS projects designed to match current and future electricity demand.

EDPR Australia Pty Ltd is part of EDP Renewables APAC group, which is headquartered in Singapore and has a pan-regional presence with approximately 1.3 GWp of committed solar capacity. EDP Renewables APAC is part of EDP Renewables (Euronext: EDPR), a global leader in the renewable energy sector with more than 15 GW installed capacity in 29 markets across Europe, North America, South America and Asia

Pacific. EDP group is recognised as the world's most sustainable energy utility company with an ambition to be Net-Zero by 2040, under the new Science Based Targets initiative (SBTi) Net-Zero Standard.

1.4 Justification

Solar energy is energy created by the heat and light of the sun. Solar power is produced when this energy is converted into electricity or used to heat air, water, or other substances. Australia has the highest average solar radiation per square metre of any continent in the world. The Commonwealth and NSW Governments have recognized the need to supplement energy derived from fossil fuels with energy generated from renewable sources. Alternative energy supply may be sourced from solar photovoltaic, geo-thermal, solar thermal, wave and tidal action, and wind.

The development of solar photovoltaic power is well underway in NSW and across Australia. This growth in the local solar PV sector continues to provide a significant boost for Australia's regional economy with renewable infrastructure development estimated to create upwards of 2,300 direct jobs plus indirect employment.

According to the Australian Renewable Energy Agency (ARENA), the deployment of household solar PV that generates about 5 kW is expected to continue and at the same time an increase in rooftop solar PV installations on commercial premises generating around (10-100 kW) is expected.

Large scale solar PV is also rapidly expanding in Australia with several solar farms being constructed that will have the capacity to generate over 50MW. The proposed solar farm aims to fill the gap in the mid-sized plants. It will generate 2 x 4.99MW of AC power and contribute to renewable energy supply to supplement electricity generation from coal, oil and gas.

The proposed development is in accordance with relevant objects of the *Environmental Planning and Assessment Act 1979* in that it will assist to generate power to be distributed to residents of NSW thereby promoting the social and economic welfare of the community in a manner that manages and conserves natural resources. The proposed solar farm will further the goals of sustainability, and the orderly and economic use of land.

2. SITE DESCRIPTION AND CONTEXT

2.1 Description

The site of the proposed Blayney 4C & 7C Solar Farm + BESS is described as Lots 74 and 83 DP 750390 No. 180 Greghamstown Road, Blayney, NSW. The lease option area for the project is 32.8 hectares in area as shown edged yellow in the aerial image below. Lot 74 is 16.4 hectares in area and Lot 83 is 16.4 hectares.

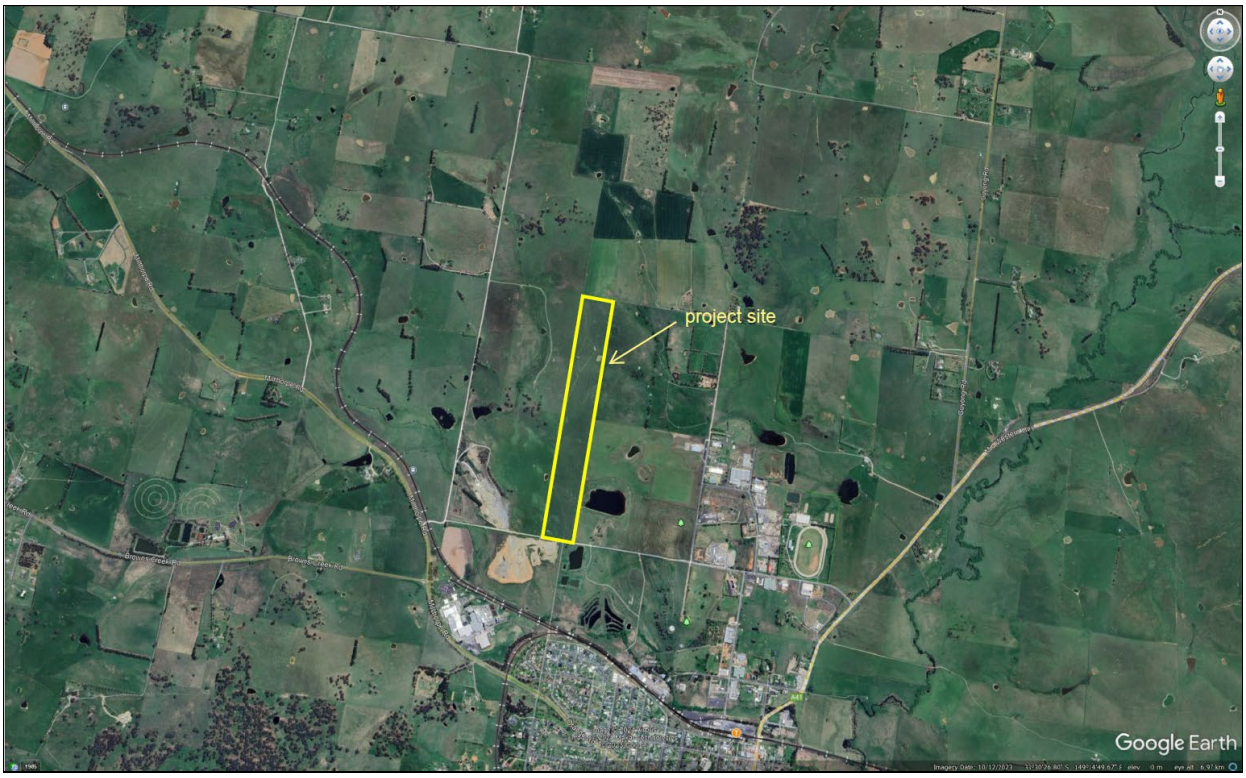


Figure 1: Aerial image. Source: Google Earth

The site has been used for livestock grazing and was used to grow fodder crops at the time of inspection in December 2022. A small dam is located near the eastern boundary north of the centre of the site. The terrain is moderately sloping to the east. The site has been cleared of native vegetation.

Current access to the site is by way of a existing driveway at the southern boundary of the site off an unnamed road that extends west from Marshalls Lane. Greghamstown Road runs parallel to the western boundary and Lowe Street runs parallel to the eastern boundary. Both are local roads managed by Blayney Shire Council.

An 11kV power line runs east-west along the unnamed road that connects to Marshalls Lane. The power line feeds into the Essential Energy Blayney Substation 66/11kV.

A high pressure gas pipeline under the management of APA crosses the lower section of Lot 83 through a 20 metre wide easement that runs east-west.

A highway bypass is also proposed in the vicinity of the site, however, details of the location of the road corridor and a timeline for development of the bypass are not available at the current time.

Plate 1: Looking north-west over the project site and surrounding land from the Lowe Street reserve

2.2 Context

Blayney local government area is located in the central west region of NSW. Its traditional custodians are the Wiradjuri people. The project site is located approximately 2.0 kilometres north-west of the township of Blayney.

Surrounding land uses comprise agriculture and horticulture to the north, east and west. Extractive industries are located to the west and south-west, and the township of Blayney which is separated by farmland is to the south of the project site. A large industrial estate is located to the east and south-east which is accessed by Marshalls Lane off the Mid Western Highway and is separated from the site by farmland. An isolated industrial development is located to the south-west. The northern extent of the urban area of Blayney lies 640 metres to the south and some large lot residential land is located south-west of the site. Isolated farm dwellings are located on nearby farmland. Figure 2 shows the locality of the proposed development and proximity to Blayney town centre.

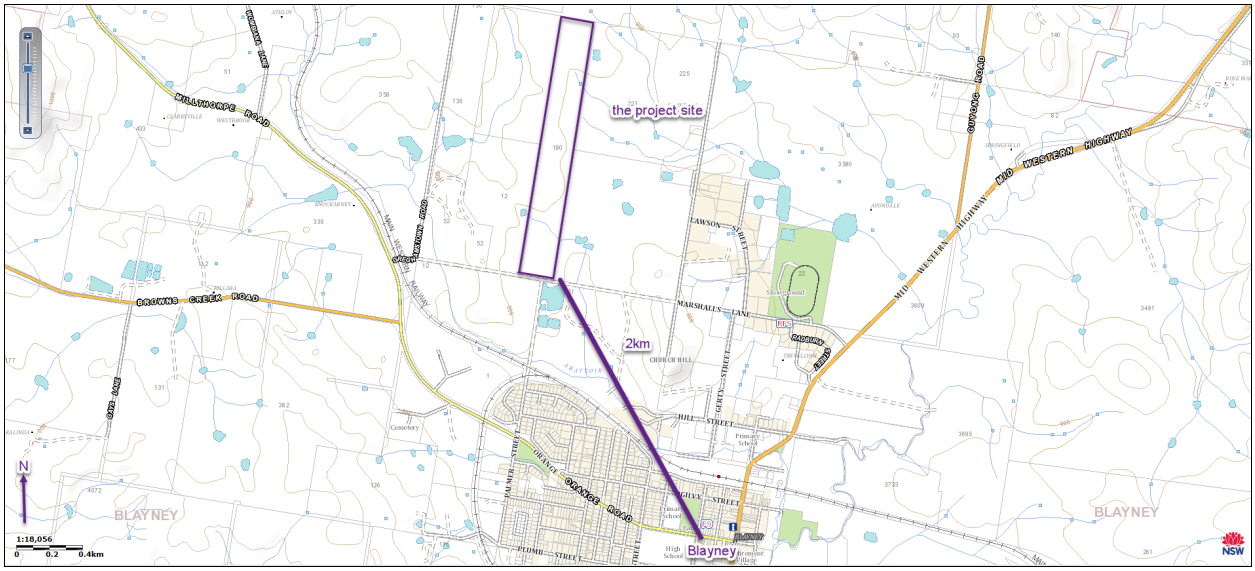


Figure 2: Locality map. Source: SIX Maps

2.3 Climate

Global solar exposure is described by the Australian Bureau of Meteorology as being the total amount of solar energy falling on a horizontal surface. The daily global solar exposure is the total solar energy for a day. Typical values for daily global solar exposure range from 1 to 35 MJ/m^2 (megajoules per square metre). The values are usually highest in clear sun conditions during the summer, and lowest during winter or very cloudy days. Global solar exposure coincides with seasons – the longer the daylight hours the greater the solar radiation due to the tilt of the earth during summer months. Solar exposure estimates are important for a wide range of applications, including for agriculture, power generation and solar heating system design and use. This climatic information sourced from the Australian Bureau of Meteorology indicates that the global solar exposure, or solar radiation, is sufficient to support power

generation in the proposed location which benefits from the presence of electricity power lines in the vicinity of the project site.

The mean monthly global solar exposure measured at Newbridge (station number 063264), the closest measuring station to the project site at 13.1 kilometres from Blayney township, is given in Table 3 below. The annual mean daily global exposure for 2024 was 17.5MJ/m^2. This data demonstrates that Blayney receives adequate solar energy to harness and convert to clean electricity and the area is suitable for solar electricity generation.

Table 3: Mean monthly global solar exposure at Newbridge, 2024

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Monthly mean	23.4	21.5	18.4	13.7	10.6	8.9	9.7	12.9	18.2	22.0	22.9	28.0

The map below (Figure 3) indicates that Blayney receives an average daily solar exposure of 15 to 18 MJ/m^2 based on readings taken over the 30-year period from 1990 to 2019. This map has been sourced from the Australian Bureau of Meteorology. It confirms that the solar exposure received at Blayney is sufficient to generate electrical energy at a commercial scale using photovoltaic panels.

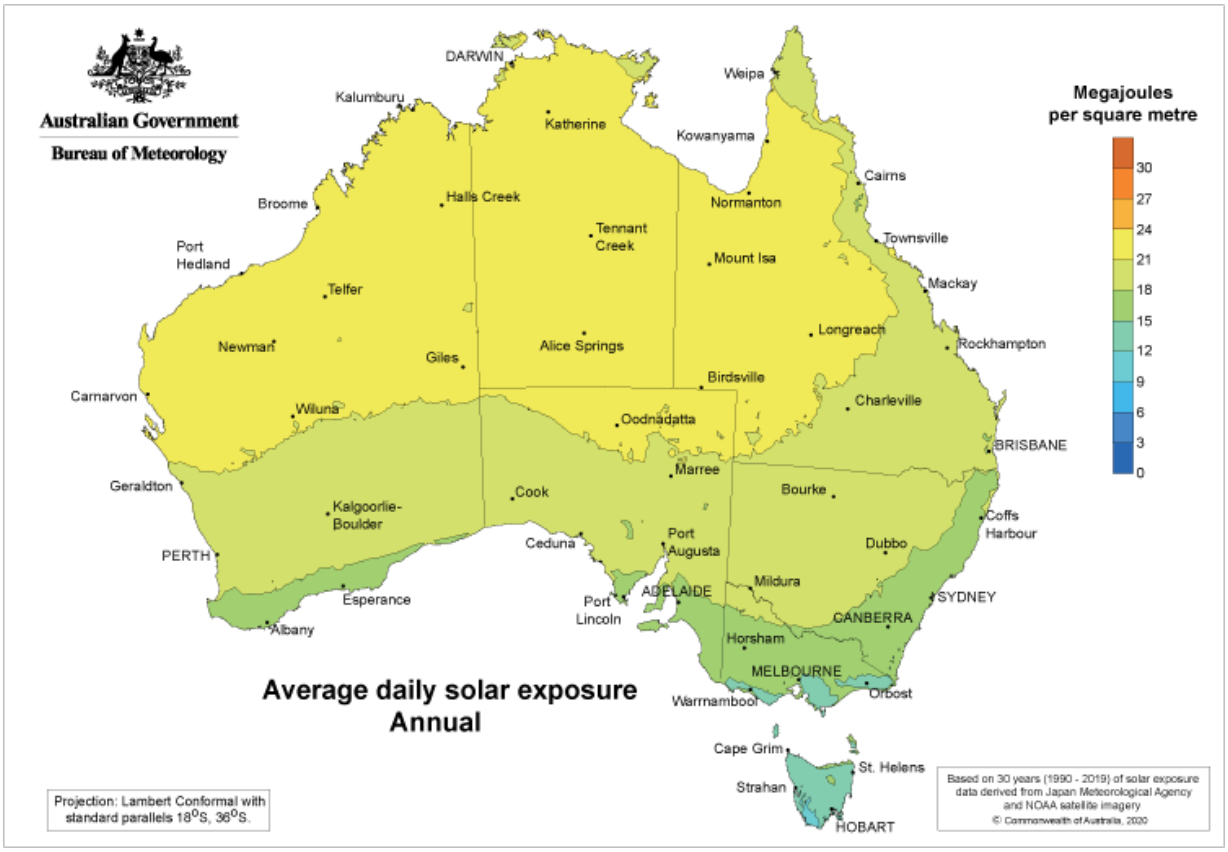


Figure 3: Average daily solar exposure. Source: Australian Bureau of Meteorology

3. DETAILS OF THE PROPOSED DEVELOPMENT

3.1 Overview

EDPR Australia is proposing to develop two 4.99 MW AC Tracker System solar farms at 180 Greghamstown Road, Blayney, NSW. The property consists of two existing lots: Lot 74 DP750390, designated for the *Blayney 4C* solar farm site, and Lot 83 DP750390, designated for the *Blayney 7C* site. A minor boundary adjustment is also proposed to provide an access handle to the northern solar farm site (Blayney 7C).

The estimated development cost of the proposal is $16.3 million ($17.9 million including GST).

Components of each facility are:

- Approximately 10,300 solar panels per site installed in rows that are around 120 metres long running east to west. The height of each module is approximately 2.0 metres to 2.75 metres and the mounting system is constructed on piles that are driven into the ground, typically within depths of 1.5 metres to 3.0 metres. Each row of solar photovoltaic (PV) modules will rotate to track the sun across the sky from east to west each day,

- Ancillary infrastructure will be clustered at the centre of the western boundary of each solar farm. This will comprise an inverter station, an electrical kiosk and a 20,000 litre water tank. The inverter stations are ground mounted on a 12.19 metre skid and incorporate two inverter units, the high/medium voltage switchgear and transformers. Allowance is also made for a 2.9 metre-high battery energy storage system (BESS) on a 12.1 metre skid,

- A new entry driveway off an unnamed road extending from Marshalls Lane using an existing driveway and a 4 metre wide access road to temporary car parking and materials laydown areas in the centre of the western boundary of each array,

- An additional power pole at the southern end of the 4C array and lines to connect to existing power lines,

- A 3 metre wide vegetation screen for the entire length of the eastern and southern boundaries, and

- A 1.8 metre high security fence on the outer side of the vegetation screening and asset protection zone. The fence is to be topped with three rows of barbed wire to give a total height of 2.3 metres surrounding each array.

The boundary adjustment of the two existing lots is to enable each solar farm to be developed within separate lots and to provide access to the northern facility via an access handle running north-south from the driveway off the unnamed road extending Marshalls Lane, along the western boundary of the southern site. Lot 74 is currently 16.4 hectares and Lot 83 is 16.4 hectares. It is proposed that the southern lot be 15.6 hectares and the northern lot 17.2 hectares after the boundary adjustment as shown in the draft Plan of Subdivision.

No development is proposed over the gas pipeline easement which lies within the northern section that will be occupied by the 7C system.

The facility is expected to operate for approximately 35 years. At the end of that time, solar panels and related infrastructure will be decommissioned and removed upon. The project site can then be returned to the pre-development land use.

3.2 Construction and maintenance

During construction, there is expected to be up to 50 personnel with only approximately 30 on site at any one time working from 7.00am to 4.00 pm Monday to Friday. The construction stage is expected to take approximately 4 months for both arrays.

Once operational the site will be unmanned. Maintenance is expected to be carried out quarterly, or as required, by a crew of 2 or 3 people. Maintenance workers would not be required to remain on site. Cleaning of the PV panels would be carried out on an annual basis to maximise the performance of the system. This is done using water brought into the site and a sponge mop.

Construction may be limited to the off-peak tourist season if necessary. It is important to ensure that the timing of construction of the solar farm does not coincide with the period of construction of other infrastructure or local events that attract visitors to avoid additional pressure on visitor accommodation.

3.3 Access and car parking

It is proposed to use a new driveway off an unnamed road that extends Marshalls Lane at the south boundary of Lot 74 to gain access to the development area. It will be necessary to construct a new 4

metre wide internal access track within the project site. The internal track heads north parallel to the western boundary to the location of each inverter station and BESS at the centre of the western edge of each array.

It is expected that a gravel all-weather road would suffice given that limited vehicles will access the site during and after the construction period. Temporary materials laydown and car parking areas are to be located adjacent the inverter stations and BESS. It is expected that temporary car parking for up to 24 small vehicles would be needed to cater for the 30 construction workers at the rate of 0.8 spaces per worker.

Car parking spaces will be temporary and not require bitumen sealing. Permanent parking spaces for the maintenance crew are not required as maintenance activities would be carried out by way of a utility vehicle carrying a water cube and mowing/slashing equipment. The crew will be mobile and moving around and between rows of panels to clean panels and maintain grasses.

Plate 2: The existing entrance to the project site off an unnamed road extending from Marshalls Lane

3.4 Services

Reticulated water and sewer services are not required to be provided to the solar farm as there are no permanent offices or amenities proposed on site. Portaloos for wastewater disposal (see https://www.kennards.com.au/site-equipment/showers-toilets.html) and water supply by way of a portable tank or cart (https://www.kennards.com.au/site-equipment/water-tank.html) are proposed to be installed during the construction phase.

3.5 Landscaping

In line with the recommendations of the *Visual Impact Assessment*, it is proposed to screen the facility along the eastern side of each array and along the southern side of the 4C solar farm. Screening is to consist of a 3 metre wide vegetation strip planted on the inner side of a security fence using a variety of shrubs endemic to the Blayney locality that grow to a maximum height of 3 metres. It is the responsibility of the developer of the facility to install and maintain landscaping.

No trees are to be removed during construction or for operation of the solar farm. Land that is disturbed during construction of the solar farm and not to be used for access or other maintenance purposes will be sown with grasses following completion of construction to minimise site disturbance and reduce the likelihood of airborne dust.

Regular inspections of the site will be carried out to ensure that grassland is managed to reduce the risk of bushfire to surrounding land and to control weeds. Mowing or slashing between rows of panels and in the area immediately surrounding the arrays would be carried out as required.

Livestock grazing may be carried out around and beneath panels and will benefit from condensation of moisture on the panels that will assist the growth of pasture grasses.

3.6 Security and setbacks

Both of the 4C and 7C solar arrays are to be enclosed within a chain mesh fence that extends from ground level to a height of 1.8 metres. The fence would be topped with three rows of barbed wire giving a total height of 2.3 metres. The fence is to be set on the boundaries of each lot. Regular inspections of the fence and any necessary repairs would be carried out by the maintenance crew during their visits every two to three months.

The vegetation screen along the southern and eastern boundaries and an asset protection zone of 10 metres width to provide access for fire-fighting vehicles are to be provided between the security fence and the array.

Electronic surveillance equipment would be installed to enable continual monitoring of the facility. Any faults or intrusion by trespassers or feral animals would be identified and addressed in real time. Security lighting is not proposed to be installed.

4. PLANNING FRAMEWORK

4.1 Legislation

Table 4: Applicable provisions of relevant legislation

Instrument	Relevant provisions	The proposed development
Environmental Planning and Assessment Act 1979	The objects of the EPA Act are intended to guide land planning and management. Section 4.15 of the Act lists matters for consideration by the consent authority when assessing and determining an application for development. Section 4.46 lists the provisions of related legislation under which a separate approval is required and the development is integrated	The proposal is integrated development due to the presence of two watercourses that traverse the project site. A separate controlled activity approval may be required under the Water Management Act 2000
Biodiversity Conservation Act 2016	This Act introduced the *Biodiversity Offsets Scheme* which is used to determine whether the *Biodiversity Assessment Method* is necessary to assess the impacts of a development proposal on threatened species, endangered ecological communities and habitats and subsequently whether the *Biodiversity Offsets Scheme* would apply. This is subject to mapping of the site on the *Biodiversity Values Map* and the extent of native vegetation to be cleared relative to the clearing threshold for the minimum lot size. A test of significance is required if the BOS does not apply	These matters are addressed in the Biodiversity Inspection Report prepared by RedGum Consulting and summarized in section *5.1 Biodiversity* of this Statement.
Water Management Act 2000	The *Water Management Act 2000* includes provisions to control or permit works near a watercourse or stream. Works within specified distances of the top of the bank of a watercourse may necessitate issue of a *controlled activity approval* by the Natural Resources Assessment Regulator	Impacts on surface and groundwaters are addressed in the Water Assessment prepared by EDP Renewables and summarized in section *5.3 Water resources* of this Statement
Local Land Services Act 2013	The *Local Land Services Act 2013* regulates the clearing of native vegetation on rural land. Clearing may be authorised on Category 1 (Exempt) Land but only where the activity is permitted without consent and when no other permit is required under other legislation. If located on Category 2 (Regulated, Sensitive or Vulnerable)	The LLS Act does not apply to the proposed solar farm as development consent is required to be obtained to enable the works to proceed

Instrument	Relevant provisions	The proposed development
	Land, the clearing may be authorised as an Allowable Activity or under the Land Management (native vegetation) Code within the *LLS Act*. If the clearing on Category 2 Land is not an Allowable Activity or is not authorised under the Land Management (native vegetation) Code, a Biodiversity Development Assessment Report is required and the clearing may need to be offset under the Biodiversity Offset Scheme	
National Parks and Wildlife Act 1994	The objectives of the *National Parks and Wildlife Act 1974* are to conserve and protect habitat, ecosystems, biodiversity, landforms, landscapes and objects, places or features of cultural value in NSW. Under the NPW Act, it is an offence to knowingly harm or desecrate an Aboriginal object. Harm includes destroy, deface or damage an Aboriginal object or Aboriginal Place, and in relation to an object, move the object from the land on which it has been situated	The *Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW* provides a process whereby reasonable determination can be made as to whether or not Aboriginal objects will be harmed by an activity, whether further investigation is warranted and whether the activity requires an application for an Aboriginal Heritage Impact Permit. The findings of due diligence are provided in section 5.8.1 of this Statement
Heritage Act 1977	The aims of the *Heritage Act 1977* are to identify, protect and conserve items of State heritage significance. Provisions of the Heritage Act facilitate the establishment of a State Heritage Register for the listing of items of State significance and the preparation of conservation management plans for these items. The Heritage Act also sets out the procedures for the approval of works relating to items listed on the State Heritage Register	Impacts on any listed heritage items that are located in the vicinity of the project site are addressed in section *5.9 Heritage* of this Statement
Noxious Weeds Act 1993	The aims of the *Noxious Weeds Act 1993* are to prevent the establishment, reduce the risk of spread and minimise the extent of noxious weeds within NSW	The extent of noxious weeds and procedures to eradicate weed infestation from the project site are addressed in the Biodiversity Inspection Report prepared by RedGum Consulting
Roads Act 1993	Under section 138 of the Roads Act 1993, consent is required to carry out works in, on or over a public road, remove or interfere with a structure, work or tree on a public road or connect a road to a classified road. The consent of Transport	Traffic impacts are addressed in the Traffic and Parking Impact Statement prepared by McLaren Traffic Engineering and summarised in section *5.6 Traffic* of this Statement

Instrument	Relevant provisions	The proposed development
	for NSW is required in the case of works relating to a classified road	
Commonwealth Environment Protection and Biodiversity Conservation Act 1999	The *Environment Protection and Biodiversity Conservation Act 1999* aims to protect nationally and internationally important flora, fauna, ecological communities and heritage places. The approval of the Commonwealth Minister for the Environment is required for actions that may have a significant impact on matters of national environmental significance. The *EPBC Act* also requires Commonwealth approval for certain actions on Commonwealth land	An assessment of the potential impact of the proposed works on any matters of national environmental significance and the need for referral to the Commonwealth is provided in the Biodiversity Inspection Report prepared by RedGum Consulting and summarized in section *5.1 Biodiversity* of this Statement

4.2 State Environmental Planning Policies

Table 5: Applicable provisions of State Environmental Planning Policies

SEPP	Relevant provisions	The proposed development
Resilience and Hazards 2021	*Chapter 4 Hazardous and offensive development* and the *Hazardous Industry Planning Advisory Paper No. 6 – Guidelines for Hazard Analysis* require that a preliminary hazard assessment (PHA) be prepared for potentially hazardous or offensive development	EDPR Australia Pty Ltd has carried out a hazard analysis and risk screening, submitted separately and entitled *Fire and Hazard Assessment*. The findings of this report are summarised in section *5.2.2 Fire* of this Statement
	Chapter 4 Remediation of land of *SEPP (Resilience and Hazards) 2021* requires the consent authority to consider whether land is contaminated and to determine whether the proposed use is suitable with or without contamination. Council can require an applicant for development to conduct a preliminary investigation and a subsequent more detailed investigation if warranted. Where contamination exists and remediation is necessary, Council must be satisfied that the remediation will take place before the land is used for the proposed purpose. It is noted that should the preliminary investigation identify contamination on the site then the NSW *Contaminated Land Planning Guidelines* apply to subsequent investigations	Land contamination is addressed in section 5.2.3 of this Statement

SEPP	Relevant provisions	The proposed development
Transport and Infrastructure 2021	Part 2.3 Division 4 of the policy relates to electricity generating works and solar energy systems. Section 2.36(9) enables the development of a solar energy system with consent by any person on any land. Part 3 Division 4 of the policy relates to electricity generating works and solar energy systems	The proposed development is permitted with consent under this policy which prevails over Blayney LEP 2012
	Section 2.42 applies to the development of a solar energy system that is state or regionally significant in a mapped regional city. Under this section the consent authority must be satisfied that the development is located to avoid significant conflict with existing or approved residential or commercial uses of land surrounding the development. The consent authority must also be satisfied that the development is unlikely to have a significant adverse impact on the regional city's capacity for growth, or scenic quality and landscape character	Blayney is not mapped as a regional city, however, impacts on scenic quality and landscape character have been assessed. Impacts will be mitigated or minimized by the proposed vegetation screening of the solar array
	Part 2.3 Division 5 of the policy relates to energy transmission or distribution. Section 2.48 requires the consent authority to consult with the electricity supply authority where development occurs near electricity infrastructure. If an electricity line runs within an easement on or near the project site, or the development is adjacent a substation, the consent authority is to consult the energy authority prior to determination of the application.	Council is to consult with Essential Energy regarding impacts of proximity to electrical infrastructure
	Part 2.3 Division 17 relates to roads and traffic. Section 2.118 requires that a consent authority must not grant consent to development with a frontage to a classified road where there is an alternative access, where the safety, efficiency and ongoing operation of the classified road is expected to be adversely affected and where the development is sensitive to use of the classified road. Section 2.122 triggers a referral to Transport for NSW where electricity generating works are expected to generate 200 or more vehicles per hour with access to a road,	Traffic management and access arrangements are addressed in the Traffic and Parking Impact Statement prepared by McLaren Traffic Engineering and summarised in section *5.6 Traffic* of this Statement

SEPP	Relevant provisions	The proposed development
	or 50 or more vehicles per hour where access is to a classified road or a road that connects to a classified road.	
Primary Production 2021	The policy applies to *State significant agricultural land,* farm dams and other artificial waterbodies, livestock industries and aquaculture. Its aims are to facilitate orderly and economic development, reduce land use conflict, identify State significant agricultural land, simplify the regulatory process and encourage sustainable agriculture and aquaculture	The Department of Primary Industries (Agriculture) has released draft mapping of *State Significant Agricultural Land* in NSW to assist decision-making regarding development on rural land. This matter is addressed in section *5.7 The community and economy* of this Statement
Planning Systems 2021	Identifies state and regionally significant development and the determining authority. Private infrastructure, including electricity generating stations, that have an estimated development cost of over $5 million are declared regionally significant and are to be determined by a regional planning panel	The proposed development has an estimated development cost of more than $5 million and the determining authority will be the Western Regional Planning Panel

4.3 Local Environmental Plans

The property is zoned RU2 Rural Landscape under *Blayney LEP 2012* as shown in Figure 4.

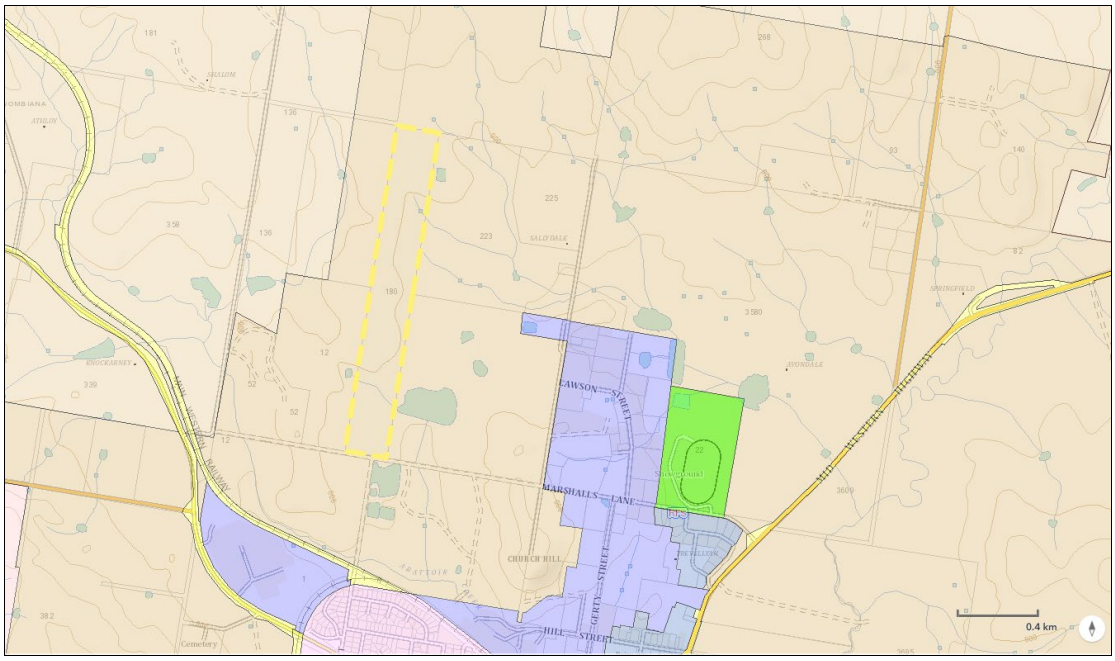


Figure 4: Land zoning. Source: Blayney LEP 2012 – Land Zoning Map

The objectives of zone RU2 are:

- *To encourage sustainable primary industry production by maintaining and enhancing the natural resource base.*
- *To maintain the rural landscape character of the land.*
- *To provide for a range of compatible land uses, including extensive agriculture.*
- *To encourage development that will not have an adverse impact on the environmental and scenic qualities of the existing landscape.*

The development is defined as ***electricity generating works*** which means a building or place used for the purpose of making or generating electricity. This use is prohibited in zone RU2.

The proposed development is satisfactory to the objectives of zone RU2 in that renewable energy through the harnessing of sunlight is a form of primary industry. The development will thereby maintain the rural function and primary production values of the land. The development will not cause fragmentation or alienation of resource land as livestock grazing may continue beneath and around the solar array when the facility is constructed and operating.

The solar farm will diversify rural activities and provide an alternative means of income thereby supporting other on-farm activities. It will not lead to land use conflict with other land uses or any special values as it is a benign development during the operational phase that will not produce noise, odour, dust or other emissions that would impact on the amenity of surrounding land.

Employment opportunities will be created for the local community both during construction and operation. There are no statutory intentions to expand the urban settlement of Blayney towards the project site and the solar farm will not obstruct any unplanned growth of the township of Blayney.

The solar farm would not adversely affect valuable environmental assets and would not have a significant impact on biodiversity or the ecological integrity of water resources, native vegetation or habitat linkages between patches of native vegetation.

It is considered that the proposed development is not inconsistent with the aims of *Blayney LEP 2012* or the objectives of zone RU2 Rural Landscape.

The following sections of *Blayney LEP 2012* apply to the proposed development.

Table 6: Relevant sections of Blayney LEP 2012

Section of Blayney LEP 2012	Intent	The proposed development
4.2B Boundary adjustments between lots in certain rural zones	The objective of this clause is to facilitate boundary adjustments between lots where one or more resultant lots do not meet the minimum lot size but the objectives of the relevant zone can be achieved.	The proposed boundary adjustment is minor and is to apply to two lots that are currently beneath the MLS and will result in two lots that are beneath the MLS. The change will not create any additional lots, will not alter the opportunity for dwellings on each lot, and will not create land use conflict or affect the agricultural viability of the land
6.2 Stormwater management	This clause requires a consent authority to be satisfied that the development: *(a) is designed to maximise the use of water permeable surfaces on the land having regard to the soil characteristics affecting on-site infiltration of water, and* *(b) includes, if practicable, on-site stormwater retention for use as an alternative supply to mains water, groundwater or river water, and* *(c) avoids any significant adverse impacts of stormwater runoff on adjoining properties, native bushland and receiving waters, or if that impact cannot be reasonably avoided, minimises and mitigates the impact.*	The development has the potential to alter existing water quality conditions within the site. The impervious area of solar facilities is typically only marginally increased owing to associated hardstand and building areas. However, the panels may impact the nature of vegetation/grass coverage on the site, which has the potential to increase surface runoff and peak discharge. Increased flow concentration off the panels also has the potential to erode soil at the base of solar panels. As the site has been historically used for farming there is very little natural ground cover vegetation. There is the potential that site runoff may contain sediments and increase turbidity or other water quality parameters in downstream water ways. The project site contains two watercourses that are shown as blue lines on topographic maps. These watercourses are identified as first order streams based on the *Strahler system* approach. Interpretation of relevant Department of Planning and Environment-Water guidelines and regulations indicates that this first order stream falls under the definition of a "minor stream". See section 5.3 Water resources for recommended mitigation measures
6.8 Essential services	This clause requires a consent authority to be satisfied that any of the following services that are essential for the development are available or that adequate arrangements have been made to make them available when required:	The supply of reticulated water and sewerage services is not required for the proposed development. However, portaloos for wastewater disposal (see https://www.kennards.com.au/site-equipment/showers-toilets.html) and water supply by way of a portable tank or cart (see https://www.kennards.com.au/site-

Section of Blayney LEP 2012	Intent	The proposed development
	(a) the supply of water, *(b) the supply of electricity,* *(c) the disposal and management of sewage,* *(d) stormwater drainage or on-site conservation,* *(e) suitable vehicular access*	equipment/water-tank.html) are proposed to be installed during the construction phase. Electrical services are available to the site. Stormwater management is proposed to be addressed by controls recommended in this Statement with full details to be provided with the application for a construction certificate. Direct access is proposed off a new driveway to an existing unnamed public road that achieves safe intersection sight distances.

There are no draft environmental planning instruments that are on exhibition or have been exhibited but not yet published that apply to the site, or that relate to the proposed development of electricity generating works.

4.4 Development Control Plans

Blayney DCP 2018 applies to all land in Blayney LGA. The DCP does not contain any provisions relating specifically to renewable energy developments. Relevant objectives and acceptable solutions of *Part G: Environmental Management & Hazards* are given in Table 7 below with the reference to the relevant section of this Statement.

Table 7: Relevant provisions of Blayney DCP 2018

Section	Objectives	Acceptable solution	Section of Statement of Environmental Effects
G2 Buffers to sensitive land uses	1) To incorporate appropriate buffers or setbacks between sensitive land uses (or zones that may support those sensitive land uses) and higher impact land uses (or zones that may support those uses) to avoid or mitigate against that impact; 2) To promote economic certainty by ensuring that higher impact land uses are located so as to allow their ongoing operation and future expansion with minimal risk of constraints due to impacts on neighbouring sensitive land uses.	Noise & vibration: 1) Where any proposed development is likely to: a) Generate significant noise and/or vibration that may impact on existing sensitive land uses in reasonable proximity to the development site; or b) Be significantly impacted by potential noise and/or vibration from an existing (or future expanded) development or infrastructure (including a state/regional road or railway line), then the applicant may be required to lodge a Noise (and/or Vibration) Assessment (prepared by a suitably	Section 5.5 Noise

Section	Objectives	Acceptable solution	Section of Statement of Environmental Effects
		qualified acoustic consultant) that demonstrates how the proposed development has been located, designed, and/or managed to avoid or mitigate those impacts to/from the proposed development in accordance with the relevant guidelines. 2) The design or construction of building(s) or areas that may emit significant noise should consider: a) Location, proximity, and buffers to protect sensitive land uses; b) Terrain and amplification/direction of noise; c) Background noise levels; d) Enclosure of noisy area(s) and suitable acoustic insulation; e) Avoidance of opening(s) of enclosed noisy area(s) towards sensitive land uses that may direct noise to a sensitive land use; f) Suitable hours of operation and transport movement, loading/unloading etc.; g) Any other factor that would exacerbate likely noise. 3) Any Noise (and/or Vibration) Assessment relating to development near an existing state or regional road or railway line should address the requirements of *State Environmental Planning Policy (Infrastructure) 2007* and the *NSW Department of Planning (2008) Development near Rail Corridors and Busy Roads – Interim Guideline.* 4) Any Noise Assessment involving a noise source set out in the *Protection of the Environment Operations Act 1997* must address the requirements (where relevant) of the *NSW Industrial Noise Policy* (2000 – as amended) (see http://www.epa.nsw.gov.au/noise/industrial.htm). 5) Any Noise (and/or Vibration) Assessment relating to an industrial land use (particularly an existing industrial use) within Zone IN1 General Industrial or Zone IN2 Light Industrial or a business use in Zone B2 Local Centre, B5 Business Development or B6 Enterprise Corridor should consider the economic importance of facilitating industrial and business development in those zones.	

Section	Objectives	Acceptable solution	Section of Statement of Environmental Effects
		Odour & dust: 1) Where any proposed development is likely to: a) Generate significant odour that may impact on existing sensitive land uses in reasonable proximity to the development site; or b) Be significantly impacted by potential odour from an existing (or future expanded) development or infrastructure (including a state / regional road or railway line); or c) Where any proposed development occurs on land identified as 'Sewage Treatment Plant and Waste Depot Buffer' on the Sewage Treatment Plant and Waste Depot Buffer Map (i.e. within 400m of the boundary of these facilities), then Council may require the applicant to lodge an Odour and/or Dust Assessment (prepared by a suitably qualified consultant in accordance with Council's *Development and Building Guide*) that demonstrates how the proposed development has been located, designed, and/or managed to avoid or mitigate those impacts to/from the proposed development in accordance with the relevant guidelines. 2) The Odour and/or Dust Assessment should demonstrate how odour and/or dust will be managed on the proposed development site to avoid any adverse impact on the development and/or surrounding land uses (whichever is relevant). This should be prepared by a suitably qualified consultant in accordance with the relevant guidelines. 3) Vehicle entry, exits, loading, unloading and internal manoeuvring areas should be sealed or have a surface agreed with Council's engineers to minimise the emission of dust from trafficable surfaces for uses that have higher traffic generation or close proximity to sensitive land uses.	Section 5.4 Air quality
		Buffers & landscaping: Any buffers or setbacks should incorporate or be capable of incorporating sufficient landscaping / tree plantings (or other	There are no buffers specified for renewable

Section	Objectives	Acceptable solution	Section of Statement of Environmental Effects
		mechanism where appropriate) to minimise or mitigate any impacts from adjacent land uses without increasing the bushfire threat to any existing or proposed buildings. *Note: Blayney Shire Council acknowledges that one method for reducing land use conflict is to incorporate significant landscaping and trees into buffer areas to create a barrier to views, dust, and some other impacts (not including noise). The issues with landscaping include:* *a) It is difficult to specify landscaping that will actually provide a buffer for all impacts;* *b) Landscaping requires ongoing irrigation and maintenance to achieve the desired outcomes and Council is not well-placed to provide ongoing enforcement;* *c) Additional landscaping, in certain circumstances can increase bushfire risk to existing or proposed buildings;* *d) Changes in ownership or land use may require different landscaping approaches.* *Where required, landscape plantings will form part of the conditions of consent by Council. However, by providing the required buffers/setbacks it allows for the individual owners to utilise landscaping to minimise or mitigate impacts.*	energy development. See section 3.5 Landscaping and 5.10 Landscape character and visual amenity
G3 Stormwater & drainage	To ensure that stormwater and drainage systems: a) Address the objective of Clause 6.2 Stormwater Management of BLEP2012; b) Will not significantly alter and/or worsen pre-development stormwater patterns and flow regimes; c) Will convey stormwater to receiving waters with minimal damage, danger and nuisance; d) Maintain the water quality of receiving waters; e) Stabilise landform and control erosion; f) Maximise the potential for water infiltration and minimise overland flows;	1) If a Soil and Water Management Plan is required by Council's *Development and Building Guide* then it must demonstrate / address the matters set out below (where relevant). 2) For all areas (both urban and rural) development must ensure stormwater management: a) Is in accordance with Council's *Guidelines for Engineering Works (as amended)*; b) Does not result in any concentration of flows to adjoining properties; c) Is designed to optimise the interception, retention and removal of water-borne pollutants and sediment prior to their discharge to receiving waters.	Section 5.3 Water resources

Section	Objectives	Acceptable solution	Section of Statement of Environmental Effects
	g) Protect proposed or likely building areas from erosion and stormwater damage; and h) Consider water retention/detention and re-use (where relevant).		
G5 Bushfire	Development on bushfire prone land: 1) To meet the statutory requirements for bushfire protection in NSW. 2) To prevent the loss of life and property due to bushfire by providing for development compatible with bushfire hazard. 3) To ensure risks associated with bush fire are appropriately and effectively managed while having due regard to development potential, on-site amenity and protection of the environment. 4) To ensure bush fire risk is managed in connection with the preservation of the ecological values of the site and adjoining lands.	Development must comply with Planning for Bushfire Protection 2019 and Australian Standard AS3959-2009 Construction of Buildings in Bush Fire Prone Areas	Section 5.2.2 Fire
G6 Land contamination	1) Enable Council to more adequately identify, record and manage known and potentially contaminated land in accordance with legislative and state policy requirements; 2) Consider the historical uses of sites to understand potential risks from potentially contaminating land uses; 3) Ensure development sites have a suitable soil/water quality for their intended use and that any proposed development of an identified contaminated site will not result in any unacceptable levels of risk to human health or the environment; 4) Remediate contaminated sites to a suitable level for their intended purpose and protection of the natural environment; 5) Comply with Council's *Contaminated Land Policy* and any relevant NSW Government guidelines; 6) Avoid or minimise the risk of future contamination of sites from proposed development. Where any proposed development and its operation involves significant quantities of chemical or petroleum use or storage or harmful materials		Section 5.2.3 Contamination The project site is not mapped as being sensitive due to groundwater vulnerability, drinking water catchments or riparian land and watercourses. Clauses 6.4, 6.5 and 6.6 do not apply to the proposed development

Section	Objectives	Acceptable solution	Section of Statement of Environmental Effects
	or waste products (in any form) on the site, the applicant must demonstrate how the proposed development: a) Will manage and safely contain any chemicals, materials or wastes on the site and/or during their disposal or transport to/from the site in accordance with the relevant regulations; b) Is designed to minimise or mitigate the risk of contamination to land, surface and ground water, or ecological systems both during normal operations and in the event the normal systems fail; c) Addresses relevant clauses in BLEP2012 including (where relevant), but not limited to: i. Clause 6.4 – Groundwater vulnerability; ii. Clause 6.5 – Drinking water catchments; iii. Clause 6.6 – Riparian land and watercourses.		
G9.4 Erosion & Sedimentation		1) Council will assess the relative risk of certain developments causing erosion and sedimentation in accordance with the requirements of the 'Blue Book' (*Managing Urban Stormwater: Soils and Construction*) by Landcom, Fourth Edition (2004) (as amended) including, but not limited to: assessment of site constraints and opportunities; management of soils/earthworks; vegetation retention and enhancement; management of water; sediment and waste control; and site access, stabilisation and maintenance. 2) Council may place conditions of consent on development to comply with the requirements of the 'Blue Book' and Council's *Development and Building Guide* in accordance with the risk of erosion and/or sediment leaving the site in the following order of risk (low to high): a) Implement sediment & erosion control measures during construction; b) Lodge with Council (for approval) an Erosion & Sediment Control Plan; c) Lodge with Council (for approval) a more detailed Soil & Water Management Plan.	Section 5.3 Water resources

4.5 Land use strategies

The *Central West and Orana Regional Plan 2041*, *Blayney Shire Local Strategic Planning Statement*, *Blayney Shire Settlement Strategy*, the *Sub-regional Rural and Industrial Land Use Strategy* and the *North Blayney Industrial Lands Strategy* are of relevance to the land and/or this application. An online search and request to Council for the *Blayney Shire Renewable Energy Action Plan* was unsuccessful and the plan does not appear to be available online at the time of drafting this Statement.

Table 8: Land use strategies applying to Blayney

Strategy	Intent	The proposed development
Central West and Orana Regional Plan 2041	The *Central West and Orana Regional Plan 2041* sets a 20-year strategic land use planning framework for the region. Objective 2 is to *Support the State's transition to Net Zero by 2050 and deliver the Central-West Orana Renewable Energy Zone*.	Blayney is located south of the renewable energy zone. Despite not being included in the REZ, the Blayney 4C & 7C Solar Farm + BESS can contribute to achieving the transition goal of the NSW Government.
Blayney Shire Local Strategic Planning Statement	*Blayney Shire Council Local Strategic Planning Statement* sets a vision and framework to guide detailed land use planning. The vision is '*Blayney Shire is a vibrant and thriving rural shire, continuing a rich history of gold discoveries and farming that creates positive housing growth and employment opportunities whilst protecting our natural and built environment*.'	Planning priority 5 of the LSPS is to *promote and support growth in the renewable energy industry sector*. Strategic directions include managing the interface between agriculture, residential development and renewable industry; and finding a balance between the renewable and agricultural industries. Actions to implement planning priority 5 include: *Work with businesses and other stakeholders to find appropriate locations for renewable energy generation potential and access to the electricity networks* *Continue to work with Government agencies and other stakeholders to promote Blayney Shire as an area for renewable energy industries and development*
Blayney Shire Settlement Strategy	The purpose of the Strategy is to identify sufficient land to meet the short- and medium-term housing needs generated by the changing demographic profile and population growth of Blayney Shire	The project site is not nominated for future investigation for urban development or as an urban release area. The site remains mapped as rural land

Strategy	Intent	The proposed development
Sub-regional Rural and Industrial Land Use Strategy	The strategy prepared in 2008 applies to Blayney, Cabonne and Orange LGAs and identifies changes to zone boundaries for new comprehensive planning schemes.	The project site was nominated for zoning as rural landscape which has been enacted through Blayney LEP 2012. Marshalls Lane north was identified as an extension of the existing industrial area
North Blayney Industrial Lands Strategy	The strategy recommends that land at North Blayney remain zoned for business and industrial development and that land north of Church Hill be assessed for industrial expansion	The project site is included within a future investigation area, however, demand has not driven rezoning. Other primary industry (a new private quarry) has been approved since the strategy was prepared in 2015. The solar farm is expected to have an operating period of 35 years after which the land may be developed for industrial uses if required

Figure 5: Structure plan for Blayney. Source: Blayney LSPS

4.6 Guidelines

4.6.1 Large Scale Solar Energy Guideline

The *Large Scale Solar Energy Guideline* applies to state significant developments. Although the guidelines do not legally apply to the proposed development, the NSW Government encourages applicants, councils and planning panels to consider the objectives and principles when preparing, assessing and determining applications for regionally significant development. The objectives, principles and assessment issues outlined in the guideline have been considered during preparation of this *Statement of Environmental Effects* and are referenced in the matters assessed in chapter *5. Environmental Effects* and chapter *6. Conclusion*.

4.6.2 Planning for Bushfire Protection 2019

The *Planning for Bushfire Protection 2019* guideline applies to land that is mapped as bushfire prone and is used to determine the extent of asset protection zones, access arrangements, water supplies and other matters that affect the ability to protect life and property in the event of a bushfire. Section *8.3.5 Wind and solar farms* of the guideline sets out the requirements for the development of renewable energy facilities. This matter is addressed in section *5.2.2 Fire* of this Statement.

4.6.3 Blayney Renewable Energy Action Plan

The Blayney Renewable Energy Action Plan demonstrates Council's commitment to innovation in energy use and delivery. Council seeks to be self-sufficient through renewable energy, provide to business and residents and to facilitate energy efficiency and renewable energy within the community. The plan focuses primarily on projects that may be developed or facilitated by Council to power public facilities and also opportunities to develop clean energy to boost the local economy and attract businesses to Blayney LGA.

5. ENVIRONMENTAL EFFECTS

5.1 Biodiversity

5.1.1 Assessment of impacts

Biodiversity (Large Scale Solar Energy Guideline – for consideration only)
Where the proposed site contains native vegetation, habitat of threatened species or ecological communities, and requires clearing, an assessment must be undertaken in accordance with the *Biodiversity Conservation Act 2016,* the Biodiversity Assessment Method and documented in a biodiversity development assessment report (BDAR).
The Planning Secretary has the power to waive the requirement for a BDAR if an applicant can demonstrate that the proposed development is not likely to have a significant impact on biodiversity values.
Applicants are expected to demonstrate that they have applied principles of avoidance, minimisation and mitigation of impacts in project design.

A biodiversity assessment has been carried out by Red-Gum Environmental Consulting Pty Ltd to determine the potential impact on any threatened species and endangered ecological communities that are present on the project site and in the vicinity of the site. The findings of the assessment are summarized below. Reference should be made to the *Biodiversity Inspection Report* that is submitted with the development application for further information or clarification of any matter concerning the assessment and recommendations.

Methodology for the biodiversity assessment involved desktop research and a site inspection. The assessment covered details of recorded sightings of threatened species including koalas and identification of vegetation communities in the vicinity of the project site. The *Biodiversity Inspection Report* provides a test of significance in accordance with requirements of the *Biodiversity Conservation Act 2016,* an assessment of potential koala habitat as required by *SEPP (Biodiversity and Conservation) 2021* and also satisfies requirements of the *Commonwealth Environment Protection and Biodiversity Conservation Act 1999*.

5.1.2 Findings

Red-Gum contends that the site is dominated by exotic pasture grasses which have little to no value to threatened fauna and threatened flora are not present in these previously cultivated areas. The site is completely cleared of trees and shrubs. This project is unlikely to displace any rare or threatened species. The groundcovers in the site and on the roadside (at the site access point) are exotic dominated, with many species commonly regarded as 'highly invasive' in more natural woodland settings. While the proposed works are unlikely to introduce noxious weeds, vermin, feral species or genetically modified

organisms into an area, the movement of vehicles, plant, equipment and people on and off the subject site has the potential to introduce such impacts. Wherever possible, the removal of weeds should be undertaken prior to seed developing, which for most species occurs during the warmer months (i.e. summer). Selection of PCT appropriate species for any revegetation work in this zone is to be guided by a suitably qualified ecological contractor / consultant.

In terms of Koala habitat, there are no viable food sources present in the assessed area. Given the site is completely cleared of trees and shrubs, the site is highly unlikely to be traversed or used by the species who are much more likely to stay within the connected canopy of roadside vegetation corridors and more heavily wooded areas.

5.1.3 Mitigation measures

By way of a clearing process that minimizes the risk to threatened species that may be opportunistically using the site, it is recommended that:

I. Construction limits and exclusion zones be clearly identified prior to work,
II. A visual inspection is conducted by environmental staff before construction commences to identify any areas of the site that might be supporting native fauna,
II. Vehicle movements around the site will be restricted to the construction footprint and away from any existing native trees bordering the site with flagging exclusion fencing to be installed,
III. Soil disturbance by vehicle and pedestrian access is to be kept to a minimum outside the construction footprint,
V. Any weeds removed (particularly those bearing seeds) are to be disposed of appropriately at the nearest waste management facility, and
VI. Species selection for any revegetation works is to consider the appropriate PCT for the site and guided by a suitably qualified ecologist or contractor.

5.2 Hazards

Hazards (Large Scale Solar Energy Guideline – for consideration only)

The location of solar energy infrastructure should avoid any land subject to identified natural hazards (such bushfires, flooding or land instability) and should not contribute to an increase in risk of a natural hazard.

Any natural hazards or risks associated with the construction, operation and decommissioning of the solar energy project must be assessed. These include those associated with hazardous materials (for instance, from PV panels and battery storage), and the threat of fire spreading to a solar development or being caused by associated infrastructure such as cables, panels or transmission lines.

If the project is located in a bushfire prone area, applicants must prepare a strategic bushfire study in accordance with the NSW Rural Fire Service's Planning for Bush Fire Protection.

5.2.1 Flooding

The site is not mapped as a Flood Planning Area on the Flood Planning Map of *Blayney LEP 2012.* The project site does contain two drainage lines, that are designated 1st order streams. The site is elevated above the urban are of Blayney as shown in Figure 6 below.

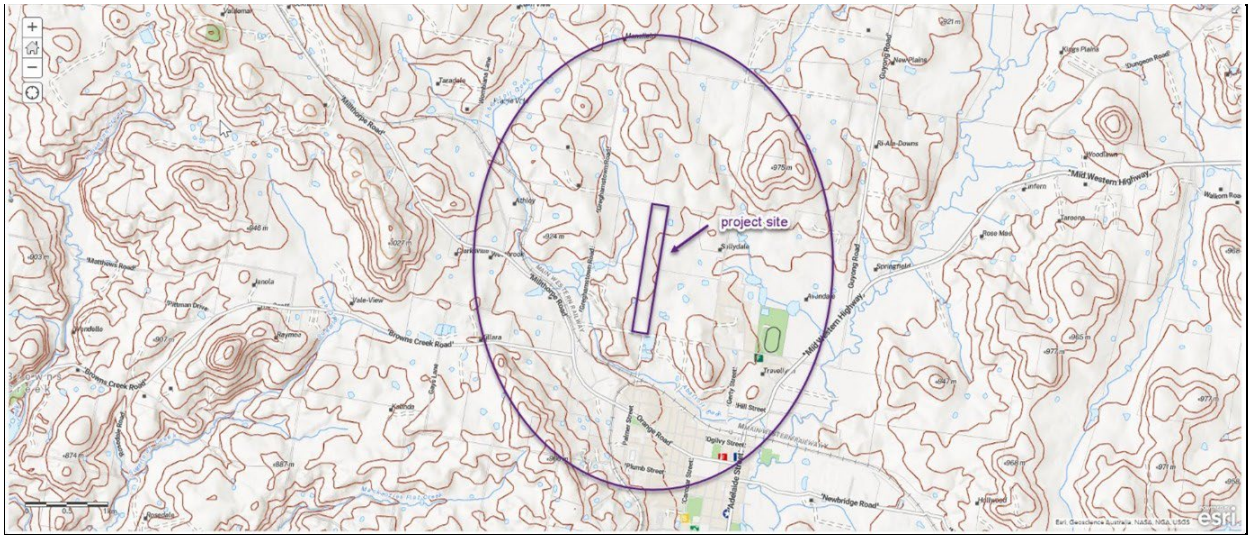


Figure 6: Contour map. Source: SIX Maps

Refer to section *5.3 Water resources* and the *Water Assessment* prepared by EDPR Australia Pty Ltd for details of flooding and stormwater management and recommended mitigation measures to address these matters.

5.2.2 Fire

The site is not mapped as being affected by bushfire on the bushfire prone land map that is available on the NSW Spatial Viewer. Due to the inclusion of grasslands, the project site is mapped as bushfire prone land on draft mapping yet to be adopted by Council or the RFS. This draft map may or may not change prior to adoption by Council and the RFS.

Section *8.3.5 Wind and solar farms* of *Planning for Bushfire Protection 2019* has been considered. Infrastructure comprising electricity generating works is not a habitable building and is not listed as a *special fire protection purpose* under section 100B of the *Rural Fires Act 1997*.

Defendable space is available within a setback between the array and the security fence that is 10 metres in width which is to be managed as an inner protection zone for the operating life of the solar farm.

In terms of fire safety including the threat of bushfire, the report recommends that the facility with battery storage can be made safer through the integration of safety in design principles from bushfire standards including APZ clearances, internal protection areas, comprehensive system fault monitoring, automated fire detection and suppression systems and safety procedures built into WHS policies and procedures to ensure these farm assets and the surrounding area are protected from the risk of fire.

The layout of the solar array is proposed to include an Asset Protection Zone (APZ) surrounding the entire site with a 10 metre wide setback from a non-combustible chain-link fence. The APZ will not be located on land exceeding a slope of 18 degrees. This APZ is also intended to act as a defendable space and a buffer against radiant heat effects for emergency services. An APZ shall also be established around the battery stations (which includes the cubicles, switching station and associated structures of the BESS) and other infrastructure such as the inverter stations and DC-DC converters located at the northern edge of each array. A 20,000 litre static water supply tank fitted with a 65mm Storz fitting will be located adjoining the internal property access road within the APZ.

Road access to the site and fencing are excluded from the APZ. Internal access roads are to have a minimum carriageway width of 5.5 metres between obstructions such as fencing, bollards and trees, and vertical clearances of 4 metres. Internal curves of the APZ and inner protection area (IPA) are designed with minimum 6 metre radius turning circles to assist in vehicle access. The APZ around the array provides access for fire-fighting vehicles. Fire-fighting vehicles are able to traverse and manoeuvre through the grasslands with open vision and adequate ability to pass each other.

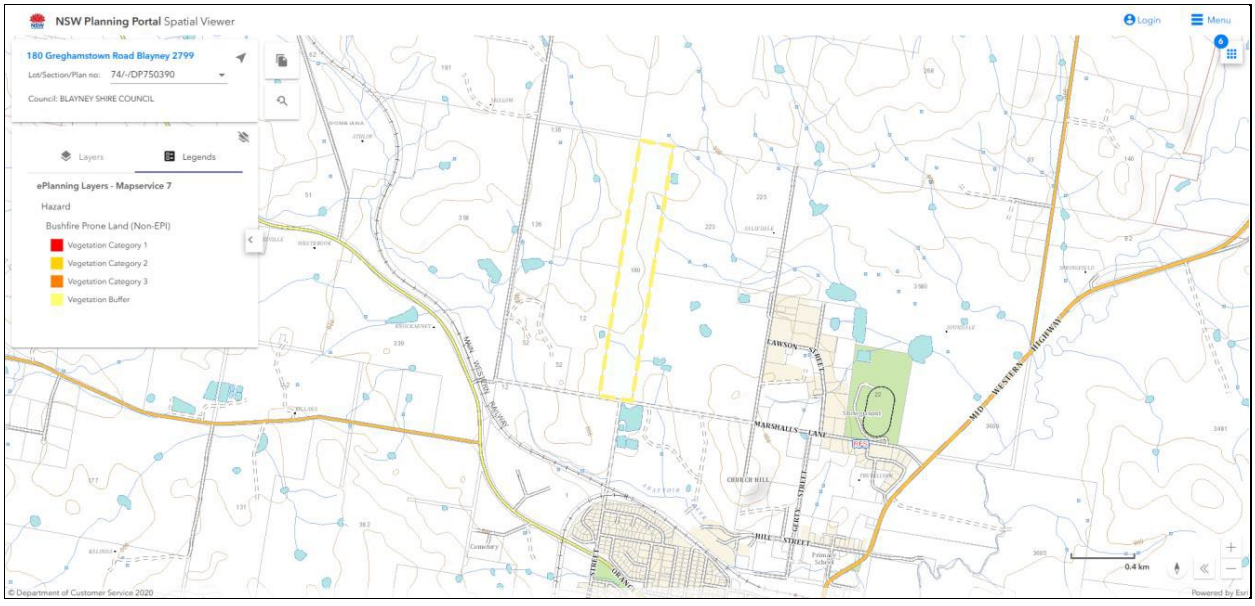


Figure 7: Bushfire prone land. Source: NSW Spatial Viewer

Batteries (Large Scale Solar Energy Guideline – for consideration only)

If the project includes battery energy storage that has a capacity of more than 30 MW, the applicant must undertake a preliminary hazard analysis in accordance with Hazardous Industry Planning Advisory Paper No 4 – Risk Criteria for Land Use Safety Planning (PDF 367 KB), Hazardous Industry Planning Advisory Paper No 6 – Hazard Analysis (PDF 525 KB) and Multi-level Risk Assessment (PDF 624 KB).

EDPR Australia Pty Ltd has carried out a hazard analysis and risk screening, submitted separately and entitled *Fire and Hazard Assessment*.

The results of risk screening are that a PHA is not required for dangerous goods to be stored on the site. However, the following management measures have been recommended to be implemented:

- Installing reliable, automated monitoring and control systems, with an alarm and shutdown response capability,
- Taking reasonable and safe measures to prevent the risks of external heat effects in the event of a bushfire,
- Designing appropriate separation and isolation between battery cubicles, and between the BESS and other infrastructure, in accordance with the manufacturer's recommendations, and including gravel set-off areas around the facility,
- Compliance with all applicable Australian codes and standards,
- Preparation of a BESS-specific fire response plan, in conjunction with the NSW Rural Fire Service,
- Installing an adequate automatic fire suppression system integrated into the detection and control system,
- Disposal (and where possible, recycling) of any potentially hazardous material in accordance with the best international practices available at that time, and
- Fuels and pesticides/herbicides in use at the site will be stored at the laydown area in appropriately bunded areas designed in accordance with AS1940-2004.

The solar farm includes an early warning system of issues such as earth faults and automatically initiates safety systems to prevent uncontrolled outbreaks of hazards such as electricity disturbances on the grid or localised issues such as fire.

5.2.3 Contamination

A search of the Environment Protection Authority's *List of Notified Contamination Sites* and *Protection of the Environment Operations Act Public Register* has been undertaken which revealed that there is no contaminated site listed in or around the project site. There are no known prior land-uses on the project

site that are likely to have resulted in contamination of the land. A preliminary assessment is not considered necessary in this instance.

5.2.4 Mitigation measures

- There are no mitigation measures recommended in relation to flooding or bushfire hazard.
- Implement management measures identified in the *Preliminary Hazard Assessment*.

5.3 Water resources

Water management (Large Scale Solar Energy Guideline – for consideration only)
Surface water-related impacts, such as flooding, discharge/run-off and erosion, must be assessed. Appropriate mitigation measures, such as sediment controls, must be proposed where warranted.
Applicants should consult with landholders regarding potential surface-water related impacts of the project on neighbouring properties and any mitigation measures.
Any assessment of surface water-related impacts must be informed by a soil survey that considers the potential for erosion.
If there is any water take associated with the project, the applicant should identify the source of water (both potable and non-potable) and may need to acquire water access licences if the project is approved.

5.3.1 Assessment of impacts

A *Water Assessment* of potential impacts on groundwater and surface water flows and flooding has been carried out by EDPR Australia Pty Ltd. The findings of the assessment are summarized below. Reference should be made to the *Water Assessment* that is submitted with the development application for further information or clarification of any matter concerning the assessment and recommendations.

5.3.2 Findings

Blayney is located in the north-eastern part of the Lachan water sharing region. Other towns in the broad vicinity include Bathurst and Orange. Within the town area of Blayney, the Belubula River is the major watercourse, with the smaller Abattoir Creek running along the northern edge of the town. The Belubula River flows in a southerly direction from Blayney for 7 kilometres before flowing into Carcoar Dam.

The Blayney 4C & 7C Solar Farm + BESS is located approximately 2.0 kilometres to the north-west of the town of Blayney. According to spatial data from the Australian Hydrological Geospatial Fabric (Geofabric), the proposed facility is located within a large sub-catchment that includes the Belubula River which flows approximately 160 kilometres south and then west before joining the Lachlan River. The

project site is within a relatively flat area, running across several low hilltops with a gradual slope to the south-east and heights ranging from approximately 909 metres (AHD) on the northern side of the site to 887 metres (AHD) on the southern side. The surrounding area has some small hills to the north and east reaching heights of 964 metre contour values. The centre of the site has an elevation of 904 metres (AHD). The land is mostly cleared of native vegetation and is currently used for farming.

The *Blayney Flood Study* by Craig and Rhodes in 2019 provides a 1% AEP event inundation map for Blayney township. An earlier flood study by Jacobs in 2015 also provides information on the nature of flooding. Belubula River runs adjacent to the town along the eastern edge of the urban area. Abattoir Creek, is located north of the railway line. During severe weather events, the Belubula River and its tributaries have experienced high flow levels resulting in the closure of roads in the town area of Blayney. Properties close to the Belubula River are at high risk of floodwaters, whilst properties away from the Belubula River are also at risk from overland flooding as a result of large upstream catchments draining through the township. Mapping of modelled areas inundated by a 1% AEP flood has informed the designation of a flood planning area in *Blayney LEP 2012*. These maps indicate that the project site is unlikely to flood. There is potential for some localised (minor) inundation from minor drainage lines running through the site, however, there has been negligible occurrence of, or likelihood of, localised inundation from Abattoir Creek.

Blayney lies within the NSW Murray-Darling Basin Fractured Rock Groundwater Sources and there are groundwater dependent ecosystems of moderate to high potential near Blayney. The site is not mapped as groundwater vulnerability in *Blayney LEP 2012*. There will be no extraction of groundwater or interference with the groundwater table and the works are not expected to contribute to any regional groundwater issues. The proposed site activity is not expected to materially contribute to any regional groundwater issues, particularly those associated with nearby farming districts. Potential adverse surface water-related impacts to the site relate to site accessibility and managing downstream sedimentation.

The development has the potential to alter existing water quality conditions within the site. The impervious area of solar facilities is typically only marginally increased owing to associated hardstand and building areas. However, the panels may impact the nature of vegetation/grass coverage on the site, which has the potential to increase surface runoff and peak discharge. Increased flow concentration off the panels also has the potential to erode soil at the base of solar panels.

As the site has been historically used for farming there is very little natural ground cover vegetation. Modelling by the NSW Government indicates a soil profile of silty loam with nil cracks in the top and lower horizons. There is the potential that site runoff may contain sediments and increase turbidity or

other water quality parameters in downstream water ways. However, the development does not feature any hardstand surfaces (other than the pads for ancillary infrastructure) that will cause and/or contribute to any water runoff any more than what is currently present nor does the site produce any new water or runoff. The solar farm is designed to be terrain following and therefore retains the existing characteristics of the ground and hence preserves the natural existing drainage. The activities involved in the construction are comparable to typical farming and agricultural practices. The solar panels used are identical to those found in residential installations and those used for rainwater harvesting, where no heavy metals or hazardous chemicals are utilised in the process. As the solar farm is constructed with minimal ground invasive techniques, any erosion is expected to be contained within standard sediment and control measures and addressed through conditions of consent when detailed construction drawings are produced.

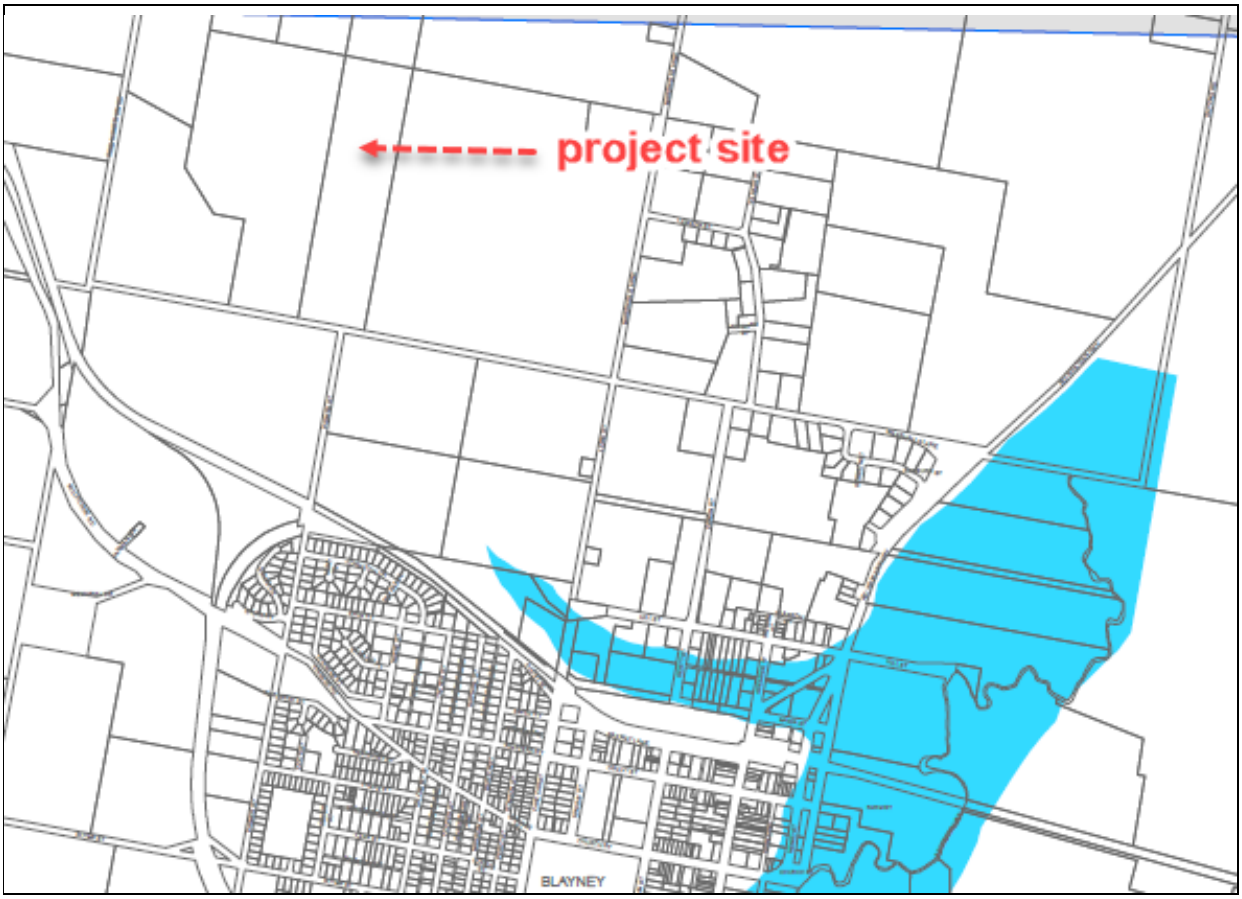


Figure 8: Extract from Flood Planning Map Sheet FLD_004B. Source: Blayney LEP 2012

The project site contains two mapped watercourses shown as blue lines on the topographic map (Figure 9). These are both identified to be first order streams based on the Strahler system approach. The stream on Lot 83/DP750390 (northern lot) partially traverses the eastern half of the lot, and the stream on Lot 74/DP750390 (southern lot) traverses the lot in a north-western to south-eastern direction.. The

watercourses are identified as first order streams based on the *Strahler system* approach. Interpretation of relevant Department of Planning and Environment-Water guidelines and regulations indicates that these first order streams fall under the definition of a "minor stream".

On-site investigations, along with desktop assessments, indicate that both streams, while mapped as watercourses, lack the distinct features of watercourses such as a bed and bank. The southern stream lacks clear, distinguishable characteristics typically associated with a watercourse, rendering it impossible to identify any flow path. At the top end of the northern mapped watercourse, there is a narrow dirt track that is indicative of cattle use as a pathway to the man-made dam located near the eastern boundary of Lot 83. The track leads to a section of bare, raised land, predominately raised on the 'eastern' side, which shows significant signs of erosion. The ground then tapers into near-level land as the track approaches the man-made dam, rendering it not possible for the pathway to hold any significant amount of water.

Neither of these mapped watercourses feature any distinct riparian habitation and are not mapped on the SEED Portal *Riparian Vegetation Condition Index* or the *Blayney LEP 2012 Riparian Land and Waterways Map*.

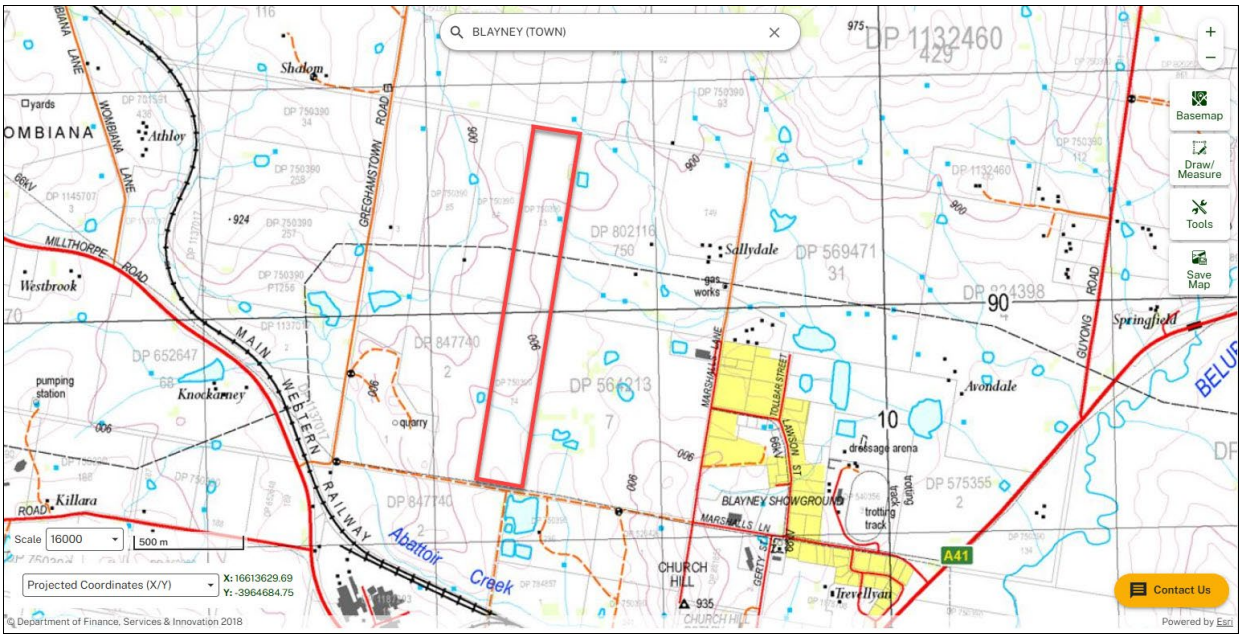


Figure 9: Mapped first order streams. Source: SIX Maps

The layout of the solar systems have been designed to maximise land use while minimally impacts on the land. The design preserves the existing natural terrain of the land with minor interference to the stream banks and features.

For the purposes of the DPE–Water assessments, the *Water Assessment* demonstrates that the mapped streams do not exhibit the distinct features of a watercourse, such as a bed and bank. Based on waterfront land guidelines, where a watercourse does not exhibit the features of a defined channel with bed and banks, the Office of Water may determine that the watercourse is not waterfront land for the purposes of the *Water Management Act*.

Therefore, based on the findings of this assessment, it is contended that these watercourses should be determined not to be waterfront land for the purposes of the *Water Management Act* and not require General Terms of Approval and/or a controlled activity approval.

5.3.4 Mitigation measures

The potential for site accessibility and the potential for inundation issues during flood events should be reviewed and procedure developed to halt construction during heavy rainfall to reduce potential impacts to the development and to increases in downstream sedimentation. The following mitigation measures given in Table 9 are recommended to manage downstream sedimentation.

Table 9: Proposed mitigation measures to manage downstream sedimentation

Stage	Measure	Activities/approach
Design	Site drainage and water quality controls	Design Basis • Undertake hydrological assessment of the site's catchment in accordance with relevant methods outlined in Australian Rainfall and Runoff • Determine sediment management targets and drainage control standards in accordance with Managing Urban Stormwater: Soils and Construction Vol 1 (Blue Book) (DECC, 2008). • Develop a site erosion and sediment control plan in accordance with the Blue Book. • Develop site drainage design incorporating detention basins and sedimentation management structures where relevant. • Permanent site drainage should coincide with temporary arrangements where possible
Construction and/or demolition	Site drainage and water quality controls	General site works: • Catch drains to be located downslope of any proposed road works. • Install location appropriate sediment fences or other applicable control measures depending on whether the feature is upstream or downstream of a disturbed part of the site or will need to be trafficable. • All stormwater collection points need to have appropriate sedimentation and erosion controls. • Undertake ongoing inspections of stormwater facilities and water control measures to assess their effectiveness. • Vibration grids or wash bays at all construction exits.

Stage	Measure	Activities/approach
		• Level spreaders at locations where concentrated flow is discharged offsite to ensure sheet flow like conditions are maintained. • Flat land erosion control options include erosion control blankets, gravelling, mulching, soil binder, turfing and revegetation
Construction and/or Demolition	Stormwater point source control	In the event of concrete works: • Do not undertake works if chance of heavy rain. • Store rinsate water, if applicable, separately to other water on site and dispose of offsite as appropriate. • Block on site drains in the area of the works and remove any contaminated runoff. In the event that dewatering practices are required: • Elevate pump hose intakes for withdrawing water from excavations to minimise sediment pumping and direct hose to a containment area for settling prior to discharge of water. • Limit direct discharge off site (consistent with the design requirements for sediment pond discharge). • Stormwater collected on site should be reused where possible. Controls should be inspected and maintained on a regular basis. All water released from sediment basins should be clear or disposed of off site by vehicle. • Material and waste storage areas should be designed and operated to minimise interaction with surface waters. • Vehicle washdown areas should be located away from water courses

5.4 Air quality

5.4.1 Assessment of impacts

Air quality (Large Scale Solar Energy Guideline – for consideration only)

Dust suppression measures that will be used during construction and operation, such as water carts during land preparation, temporary wind fences and re-vegetation of disturbed areas, should be considered.

The Department of Planning, Housing and Infrastructure maintains air quality monitoring stations across rural NSW. The instruments used at most rural network sites are indicative particulate monitors that respond to all aerosols including smoke and fog.

Total suspended particles are solid particles and liquid droplets 100 micrometres or less in diameter. They come from natural and human-made sources, such as pollen, bushfires and motor vehicle emissions. Dust emissions are also a source of air pollution and can cause poor air quality. The pollutants measured by the Department are nitrogen dioxide, sulphur dioxide and ammonia.

Particles are also measured as PM_{10} and $PM_{2.5}$. PM_{10} are particles less than 10 micrometres in diameter. Sources include crushing or grinding operations and dust stirred up by vehicles on roads. $PM_{2.5}$ are fine particles less than 2.5 micrometres in diameter. Sources include all types of combustion, including motor vehicles, power plants, residential wood burning, forest fires, agricultural burning, and some industrial processes.

Table 10 gives hourly average readings of PM_{10} particles, $PM_{2.5}$ particles and the rating for the nearest monitoring station to the project site which is located at Millthorpe.

Table 10: Average hourly air quality readings

Monitoring station	**Millthorpe**	
Period	12pm to 1pm, 6 January 2025	
Particles	Reading	Rating
PM_{10}	16.8 ug/m^3	Good
$PM_{2.5}$	7.5 ug/m^3	Good

Activities that disturb the earth's surface and that are carried out with the use of machinery have the potential to generate dust emissions. This may be exacerbated by wind exposure to an exposed ground surface. The current use of the land for farming involves regular tilling, sowing and harvesting of fodder grasses that may create dust and impact on air quality. Similarly, grazing would generate dust as animals trample the ground surface. The land has been modified for agriculture with the consequent loss of native vegetation leading to exposed soil surfaces.

The construction of the solar farm will not involve extensive earthworks. Pile driving for footings for the array framework and excavation for roads and ancillary structures will be carried out. Along with the delivery of materials using heavy vehicles, these construction works may generate dust, however, once operational the change of use of the land from agricultural to solar photovoltaic electricity generation is expected to reduce particulate emissions and lead to an improvement in local air quality. Vehicle movements would be restricted to internal access roads and the majority of the site would be revegetated with native or pasture grasses.

The presence of agricultural activities and extractive industries in the vicinity of the site may cause dust to settle on the panels. However, the proposed regular maintenance regime of cleaning panels every two to three months would ensure that the array operates at maximum efficiency.

5.4.2 Mitigation measures

To minimize dust generation during the construction and operational phases the following mitigation measures are proposed:

During construction:

- Limit vehicle movements to areas necessary to deliver panels, ancillary structures and equipment,
- Suppress dust emissions using watering and cease works during dry and windy conditions,
- Ensure ground disturbance is limited to areas necessary to place footings or to be used for access,
- Ensure minimal handling of excavated materials, and
- Ensure stockpiles of excavated material is bunded and protected from wind and vehicle movements.

During operation:

- Grade and add road base to internal accessways,
- Revegetate the site with suitable groundcover immediately after construction works are completed, and
- Ensure all plant and equipment is maintained in a clean condition and operates in accordance with specifications.

5.5 Noise

5.5.1 Assessment of impacts

Noise and vibration (Large Scale Solar Energy Guideline – for consideration only)
Construction noise impacts should be assessed in accordance with the Interim Construction Noise Guideline and operational noise impacts in accordance with the NSW Noise Policy for Industry.

A *Noise Assessment* of the impacts of noise emissions has been carried out by Muller Acoustic Consulting. The findings of the assessment are summarized below. Reference should be made to the *Noise Assessment* that is submitted with the development application for further information or clarification of any matter concerning the assessment and recommendations. The purpose of the *Noise Assessment* is to quantify potential environmental noise emissions associated with the construction and operation of the project. Where impacts are identified, recommendations are made to mitigate and manage noise.

5.5.2 Findings

The results of the *Noise Assessment* demonstrate that noise levels are expected to comply with noise management levels at the identified receivers shown in Figure 10 during standard construction hours and taking into account the standard mitigation measures. Similarly, operational noise management levels are satisfied at all receiver locations. Road noise emissions associated with the project are anticipated to satisfy the relevant *Road Noise Policy* criteria at all receivers along the proposed transportation route.

Sleep disturbance is not anticipated as there are no operational noise sources that generate significant maximum noise events and noise emissions from the project are predicted to satisfy the EPA maximum noise level criteria. A qualitative assessment of potential vibration impacts has been completed. Due to the nature of the works proposed and distances to potential vibration sensitive receivers, vibration impacts from the project would be negligible.

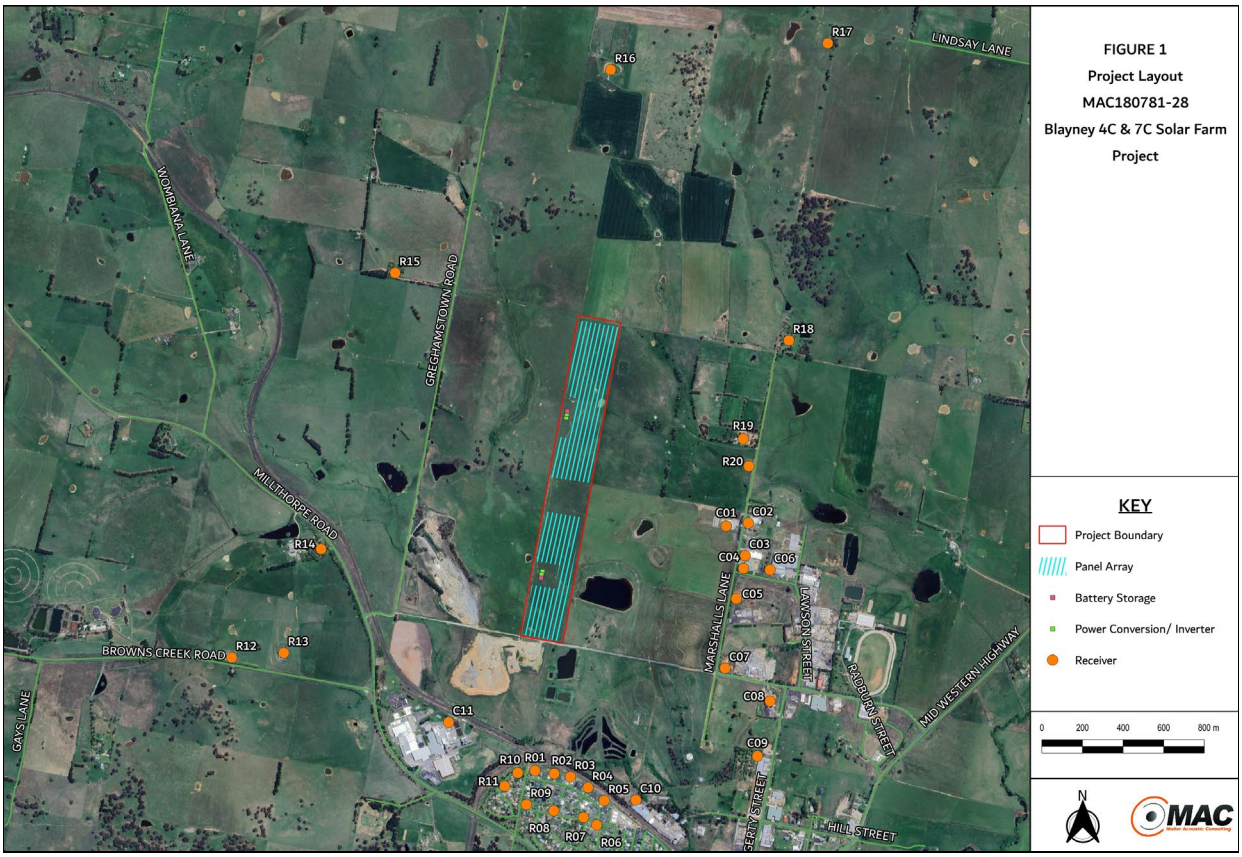


Figure 10: Location of noise sensitive receivers. Source: Muller Acoustic Consulting

Based on these results, the project satisfies the relevant requirements of the *Interim Construction Noise Guideline, Noise Policy for Industry* and the *Road Noise Policy*. Approval of the project is supported subject to the implementation of recommended mitigation measures.

5.5.3 Mitigation measures

There are no measures recommended to mitigate the impact of noise emissions.

5.6 Traffic and access

5.6.1 Assessment of impacts

Traffic and transport (Large Scale Solar Energy Guideline – for consideration only) Applicants should consider whether the local and classified road network can accommodate the traffic generated by the construction of the solar energy project, having regard to any advice from relevant road authorities. Applicants should provide a clear list of road upgrades required and an assessment of the relevant impacts of these upgrades, having regard to advice from relevant road authorities. Applicants must identify whether the road upgrades require landowner's consent.

A *Traffic and Parking Impact Assessment* has been prepared by McLaren Traffic Engineering. The findings of the assessment are summarized below. Reference should be made to the *Traffic and Parking Impact Assessment Report* that is submitted with the development application for further information or clarification of any matter concerning the assessment and recommendations.

The traffic assessment includes a description of the existing road network and considers expected traffic generation during site construction and operation. Site access arrangements and intersection capacity are also considered.

It is noted in the traffic assessment that access is proposed from an unnamed road located between Greghamstown Road and Marshalls Lane adjacent the southern boundary of the project site. Neither of these roads are classified roads. A new driveway is to be constructed to Council specifications at the south-western corner of the project site to provide direct access to the 4C system and the 7C system by way of an access handle.

The Mid-Western Highway is a classified state road with a signposted 80km/hr speed limit in the vicinity of the project site. All construction vehicles will be required to access the site using the existing road network. The largest construction vehicle required to access the site is a 26 metre B-Double and is to access the site via a left or right turn from Mid-Western Highway onto Marshalls Lane, then straight onto

the unnamed road and turning right into the site. Egress from the site will be via a left turn onto the unnamed road, straight onto Marshalls Lane and a left or right turn onto Mid-Western Highway.

Construction and operation of the solar farm does not require the use of over-size and over-mass (OSOM) vehicles. The project site is neither of sufficient size or capacity or has a frontage to and access via a classified road. Referral to Transport for NSW as part of the development application process is not required.

It is noted that a highway bypass is proposed in the vicinity of the project site, however, details of the location of the road corridor and a timeline for development of the bypass are not available at the current time. It appears that funding has not yet been allocated by the Commonwealth Government (usually 80%) or the NSW Government (usually 20%).

In terms of public transport, the site is located within a 1.2 kilometre walking distance of a bus stop (ID: 2799123) with services provided by Newman's Bus Service which connect the town centre to Orange. Blayney Train Station is located approximately 2.5 kilometres to the south-east of the project site which services the Western NSW TrainLink timetable.

5.6.2 Findings

Parking

A maximum of 30 construction workers on site at any one day are likely to generate movements in the order of 24 vehicles entering and exiting the site. This is based on the number of vehicles being 80% of the workforce.

The provision of one parking space per employee is considered appropriate, therefore, 24 spaces are to be provided during construction and three during the operational phase. On site parking should be in an informal/temporary arrangement for the type of development proposed. A shuttle bus service may also be implemented to transport construction workers to and from a location in Blayney.

Traffic impacts

During the construction period an estimated 80 trucks (including up to 26 metre B-Doubles) will access the site and are expected to generate up to eight truck movements per day (4 inbound and 4 outbound). The trucks will access the site throughout the day generally between 10.00am and 2.00pm and would not

contribute to morning or afternoon peak hour traffic. The existing intersection configuration of Marshalls Lane and the Mid-Western Highway is adequate to cater for the manoeuvring of B-Double heavy vehicles.

At peak construction periods there would be up to 30 staff on-site at any one time and it has been assumed all staff arrive in the morning and depart in the afternoon. Assuming that all staff arrive over a 2-hour period and every staff member drives to the site as a worst-case scenario, it would be expected to generate 15 inbound vehicle trips in the morning and 15 outbound vehicle trips in the morning and afternoon peak hour periods. This level of traffic is minor and temporary in nature and will not have an adverse impact on any of the surrounding intersections.

A maximum of three staff will be present at the solar farm, once per quarter, or as required for maintenance operations. This at most relates to a traffic generation of 24 (12 in, 12 out) vehicle trips per year which is extremely minor and will have no adverse impact to the surrounding road network.

Traffic generation is given in Table 11 below. The proposed development is classified as low impact with reference to the *Austroads Guide to Traffic Management Part 12: Integrated Transport Assessments for Developments.*

Table 11: Expected traffic generation

Phase	Description of vehicles	Expected vehicle trips
Establishment	10-15 trucks and trailers to deliver gravel with 4 to 5 workers with 2 persons per vehicle	10 vehicle trips per day for 2 to 3 days
	Light vehicles	4 to 6 vehicle trips per day
Construction	80 B-double articulated trucks of 26m length to deliver equipment	8 vehicle trips per day
	40 light vehicle trips for 40 construction workers (worst case with no shuttle bus operation)	80 vehicle trips per day
Commissioning	Light & heavy rigid vehicles for 10 workers with 2 persons per vehicle	10 vehicle trips per day
Operational	1 light vehicle for maintenance contractor	2 vehicle trips every 2 to 3 months

Sight distances

A sight distance of 55 metres either side of the site entry on the unnamed road is required. The minimum sight distance is achieved on approach to the site entry from both the east and the west, resulting in compliance with AS2890.1:2004 and AS2890.2:2018.

5.6.3 Mitigation measures

No mitigation measures are recommended to manage traffic and car parking impacts.

5.7 The community and economy

Social and economic impacts (Large Scale Solar Energy Guideline – for consideration only)
A social impact assessment is required for all state significant projects and must be undertaken in accordance with the department's Social Impact Assessment Guideline for State Significant Projects (PDF 2,181 KB). The assessment will include both positive and negative impacts of the proposed development on potentially affected people and groups, including how the impacts are distributed. This includes workforce accommodation, job creation opportunities and flow-on economic impacts to local communities.

5.7.1 Population and accommodation

The population of Blayney urban centre in 2021, as defined by the Australian Bureau of Statistics which includes the town of Blayney and rural land surrounding the settlement, was 2,997 persons. The total population of Blayney local government area in 2021 was 7,497 persons. Blayney township represents over 40% of the LGA population. The median age of people in Blayney urban centre in 2021 was 38 years compared to 43 for the LGA.

Unemployment at the time of the 2021 Census of Population and Housing was 6.6% of the labour force comprising persons aged 15 years and over in Blayney urban centre. The labour force participation rate in 2021 was 58.3%. The top three occupations were technicians and trade workers, labourers and community and personal service workers. The top three industries of employment were gold ore mining, hospitals (except psychiatric hospitals) and local government administration.

There were a total of 1,297 private dwellings in Blayney in 2021. 91.4% of these were occupied private dwellings. There were 112 unoccupied private dwellings or 8.6% of all private dwellings. There were a further 158 unoccupied private dwellings across the LGA. The majority of dwellings in Blayney (91.1%) were separate houses and the remainder were medium density dwellings comprising semi-detached, row or terrace houses, townhouses, flats and apartments.

There are 12 establishments offering accommodation for visitors to Blayney and the surrounding district listed on the NSW Government's VisitNSW website https://www.visitnsw.com/destinations/country-nsw/orange-area/accommodation. These include holiday parks, motor inns, bed and breakfasts, serviced apartments and hotels. In addition to these establishments there are 270 unoccupied private dwellings in the LGA some of which may be available as short term rentals, and unregulated accommodation places

such as AirBnB and Stayz. Accommodation is also on offer in the nearby towns of Orange and Bathurst and numerous villages within a short distance of Blayney.

Table 12: Key demographic characteristics

Sector	Characteristic	Blayney urban centre	Blayney LGA	NSW
Population	Total persons	2,997	7,497	8,072,163
	Median age	38	43	39
Employment	Labour force participation rate	28.3%	61.2%	58.7%
	Unemployment rate	6.6%	4.3%	4.9%
Housing	Occupied private dwellings	91.4%	90.9%	90.6%
	Unoccupied private dwellings	8.6%	8.9%	9.4%
	Total private dwellings	1,297	3,033	3,199,992
	Average occupancy rate	2.4	2.5	2.6
	Median monthly mortgage repayments	$1,300	$1,517	$2,167
	Median weekly rent	$260	$270	$420
	Proportion separate houses	91.1%	95.1%	65.6%

5.7.3 Potential socio-economic impacts

Employment

It is anticipated that there will be 50 personnel directly involved in construction with a maximum of 30 workers on site at any one time. Construction is expected to take approximately four months. Varying levels of expertise will be required ranging from labourers to qualified electricians and project managers. In addition, personnel would be involved in transport and delivery of materials to the site. Some of this employment may be able to be sourced locally. The construction period and availability of workers is subject to the availability of skilled and unskilled labour which is currently in short supply in regional areas due to high levels of development including infrastructure renewal that is happening across NSW.

Expenditure

This initial expenditure generates flow on effects throughout the local economy through income and employment. EDPR Australia Pty Ltd will commission local professionals to carry out the land survey of the project site. If necessary, sites officers employed by Orange Local Aboriginal Land Council will be engaged to carry out a cultural survey prior to commencement of works to identify any Indigenous items or places present on the project site.

The facility will bring direct economic benefits to the local economy through wages and salaries and indirect benefits through the need for accommodation and sustenance in the area for non-local employees. Restaurants, cafes, bakeries, supermarkets, pubs, newsagents would all benefit from the additional business this will bring.

Accommodation

It is considered that there is adequate accommodation available to cater to the 50 construction workers given the number of visitor accommodation establishments in the area. In addition, there are 270 unoccupied private dwellings in Blayney LGA some of which may be available for short-term rentals and as unregulated visitor accommodation.

There are likely to be negligible effects on the availability of affordable rental over the short construction period as it is not expected that landlords would evict long-term tenants in preference of short term workers. Workers coming to the area would be likely to take up tourist accommodation similar to mine workers across country NSW, however, construction may be limited to the off-peak tourist season if necessary.

In summary:

- The solar farm will generate community economic benefits through local direct and indirect employment opportunities during the planning and construction phases as well as limited maintenance and inspection jobs once operational,
- Indirect economic benefits are through the flow-on expenditures to linked industries,
- The development of a solar farm will create a new market for local contractors and expand diversity of income for the landowners,
- The additional lease income received by the land owners may be put to improvements elsewhere on the property,
- Community benefits of the solar farm will be through an understanding of sustainable development and by gaining commitment to greater reliance on renewable energy, and
- The power generated by the solar farm would be directed to the township of Blayney for consumption by local households and businesses.

5.7.6 Mitigation measures

It is recommended that labour to construct the solar farm and for ongoing maintenance be sourced from within Blayney LGA wherever possible. Where labour needs to be brought into the area, it is considered that there would be sufficient accommodation options for employees in the LGA for the estimated

maximum of 50 workers engaged during the construction phase. It is also recommended that advertising be placed in local media and to approach local businesses to determine whether there is the capacity and expertise available in Blayney and surrounding districts to participate in the construction and ongoing maintenance activities.

5.8 Agricultural land

5.8.1 Agricultural production

Agricultural land use principles (Large Scale Solar Energy Guideline – for consideration only)

1. Applicants should consider the agricultural capability of the land during the site selection process.
2. Applicants should avoid siting solar energy projects on important agricultural land as far as possible.
3. Agricultural assessment should be proportionate to the quality of the land and the likely impacts of a project.
4. Mitigation strategies should be adopted to ensure that any significant impacts on agricultural land are minimised.

Blayney is located in the Central West Region as defined by the Australian Bureau of Agricultural and Resource Economics and Sciences. The agricultural sector supports an estimated 7,351 jobs or 12.5% of regional employment in the region. (https://public.tableau.com/app/profile/australian.bureau.of.agricultural.and.resource.economics.and.sci/viz/AMR_v9_A3L/Dashboard1).

Data released in 2022 indicates that the estimated annual economic output of the agricultural sector was $2,427 million in the region with wheat and cattle and calves contributing the bulk of this value. Agricultural land in the region occupies three quarters of the region. The most common land use by area is grazing native vegetation followed by modified pastures and cropping. There are a total of 3,675 farms operating in the Central West region.

The Department of Primary Industries issued a factsheet in September 2012 titled *Central West Region Piot Area Agricultural Profile*. The project identified important agricultural lands in a study area which included Orange, Forbes, Cabonne and Blayney LGAs to guide land use planning and support sustainable industry development.

A key characteristic of the study area is the diversified production system that combines cropping with sheep meat, wool or cattle production. The variety of landscapes and climates in the study area mean that a diverse range and quantity of produce can be grown. The range of agricultural industries in the study area is significant and includes various crops, fruit, beef, wool, prime lambs, milk, pigs, grapes, vegetables, eggs, nuts and meat poultry.

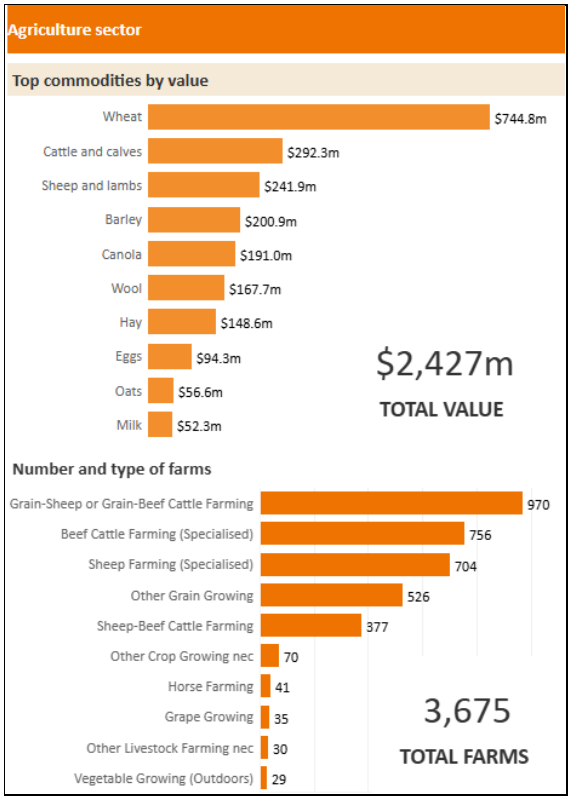


Figure 11: Central West region agricultural data. Source: ABARES 2023

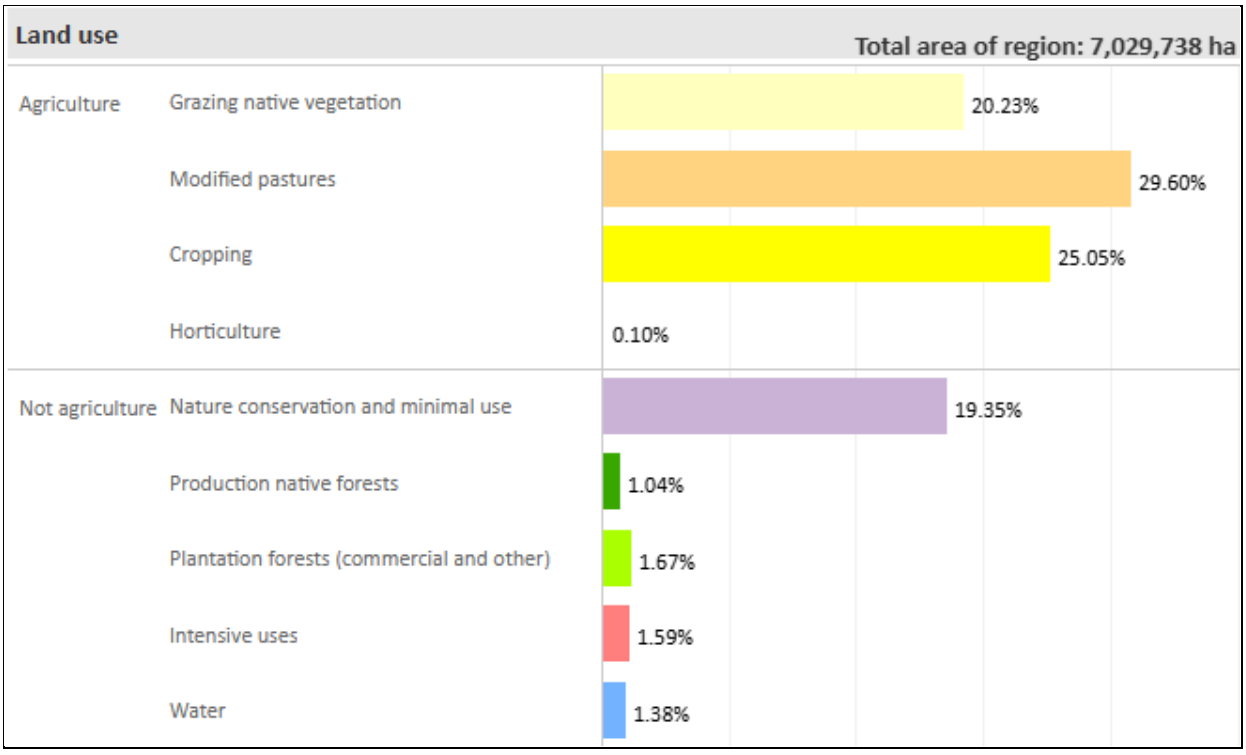


Figure 12: Central West region land use data. Source: ABARES 2023

Data regarding agricultural production in Blayney Shire has been sourced from *AgTrack – Agricultural and Land Use Dashboard* that is maintained by the Department of Primary Industries and Regional Development. The most recent data is for the 2020/2021 financial year.

Table 13: Agricultural data for Blayney LGA 2020/2021

Land area	1,525 square kilometres
Area used for agricultural production	1,383 square kilometres
Proportion of total land area used for agriculture	91%
Total gross value of agricultural commodities	$63.95 million
Total employment directly related to agriculture	356 fte
Agricultural commodities produced	19
Total agricultural businesses	253
Agricultural commodities diversity	28% of 69 commodities produced in NSW

Blayney LGA is located within the Central West/Orana planning region as defined by the NSW Government (noting that the boundaries of the region differ to those defined by the Commonwealth Government). The total gross value of agricultural commodities produced in the region 2020/2021 was $3.56 billion.

Agricultural activities occupy the majority of the total land area of Blayney LGA with livestock production covering 94,000 hectares of land area and cropping 44,000 hectares. Of livestock grazing, three-quarters is carried out on modified pastures and the remainder feeding on native vegetation.

The total gross value of agricultural commodities produced in Blayney LGA in 2020/21 was 63.95 million. Of this livestock products including meat accounted for 82% of this produce, the second biggest producer in value terms was the broadacre crops sector which accounted for 10% of the gross value of commodities.

The agricultural sector employed 356 people in 2020/21 and a further 9 jobs were in related industries within the agriculture, forestry and fishing sector.

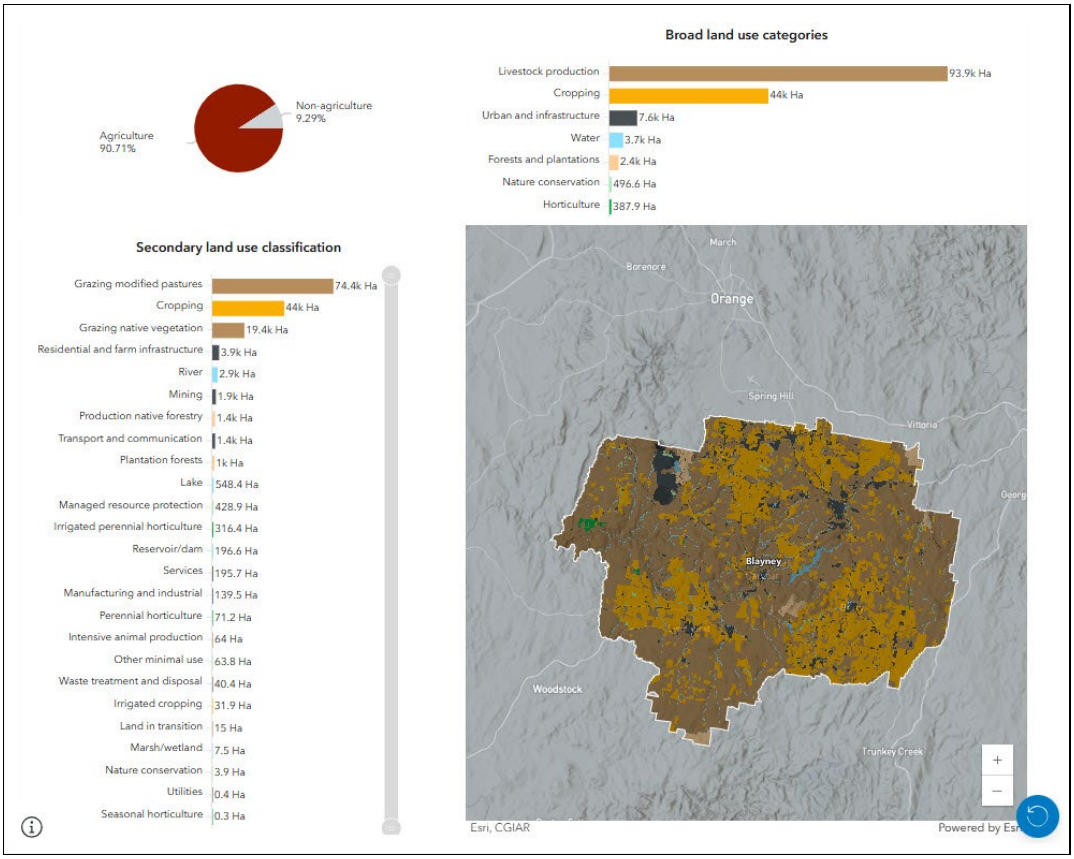


Figure 13: Land uses in Blayney LGA. Source: AgTrack

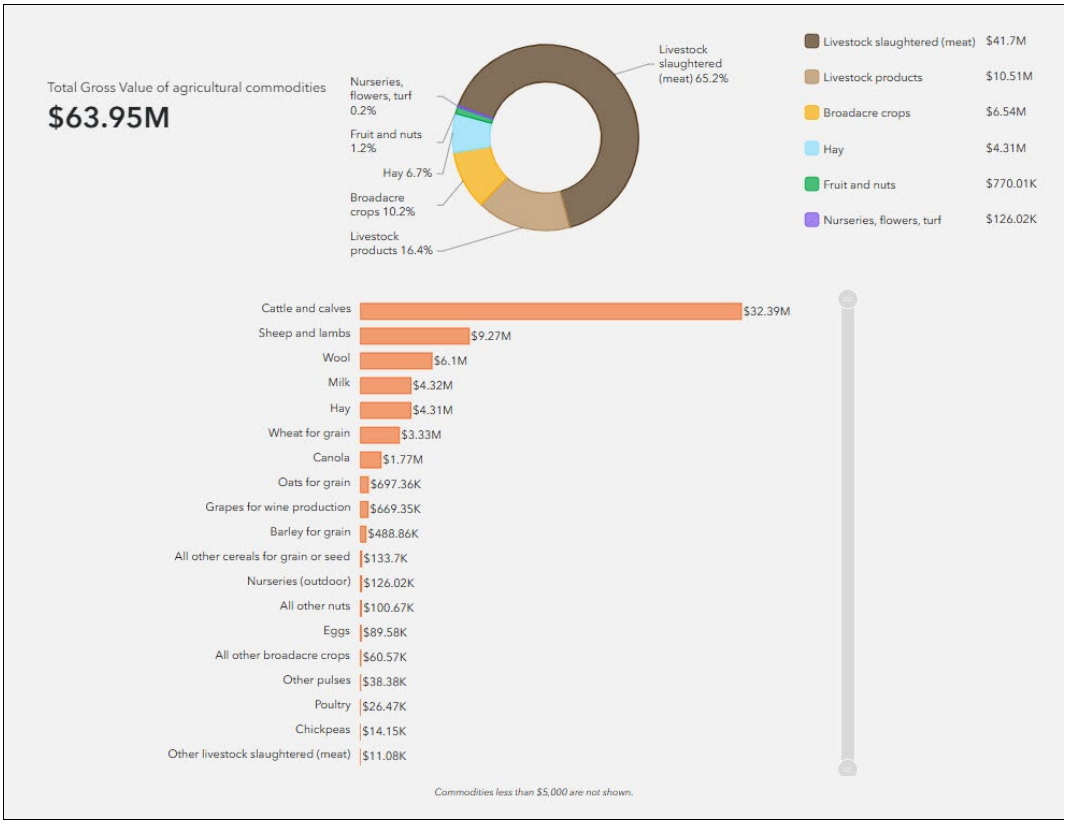


Figure 14: The gross value of agricultural commodities 2020/21 Blayney LGA. Source: AgTrack

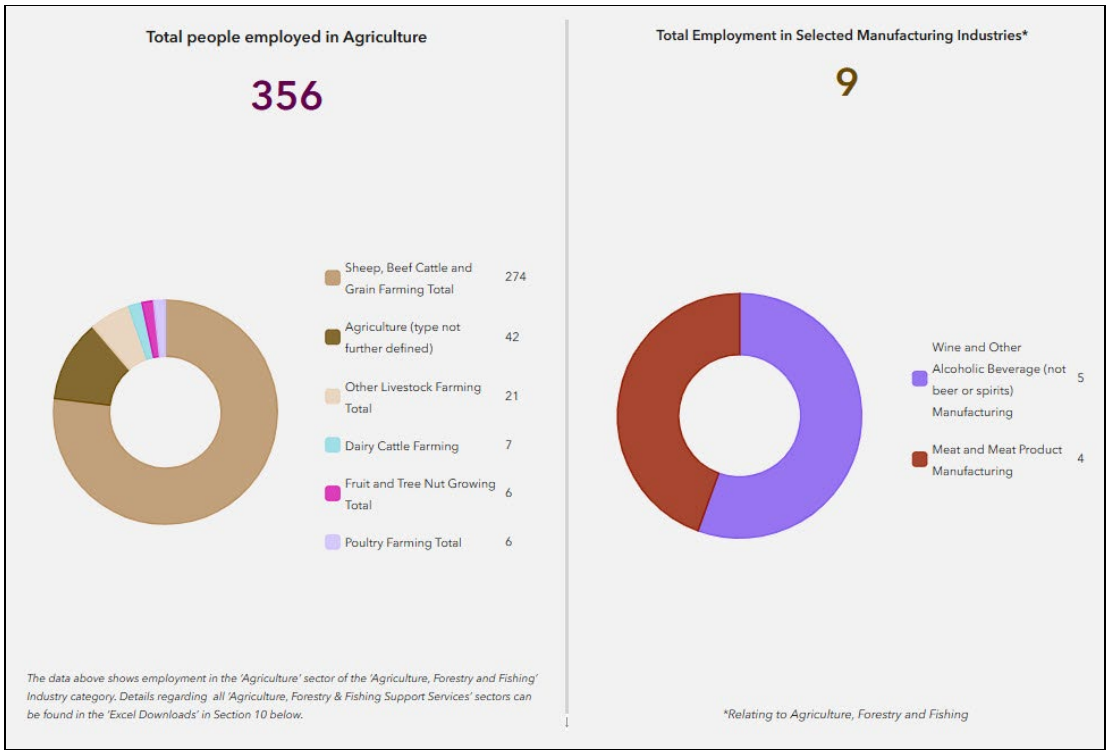


Figure 15: Agricultural employment in Blayney LGA 2020/21. Source: AgTrack

5.8.2 Land capability

DPIRD Agriculture uses the land and soil capability mapping scheme as the preferred methodology for the classification of agricultural land. Eight classes of rural land are mapped plus flood irrigation, and mining and quarrying land.

Figure 16 below shows land capability mapping for the project site and surrounding land. The project site has a land capability of class 4. This is moderate capability land with moderate to high limitations that restrict land management options for regular high-impact land uses such as cropping, high-intensity grazing and horticulture.

These limitations can only be managed by specialised management practices with a high level of knowledge, expertise, inputs, investment and technology. (*The land and soil capability assessment scheme – A general rural land evaluation scheme for NSW, 2nd Approximation*, OEH).

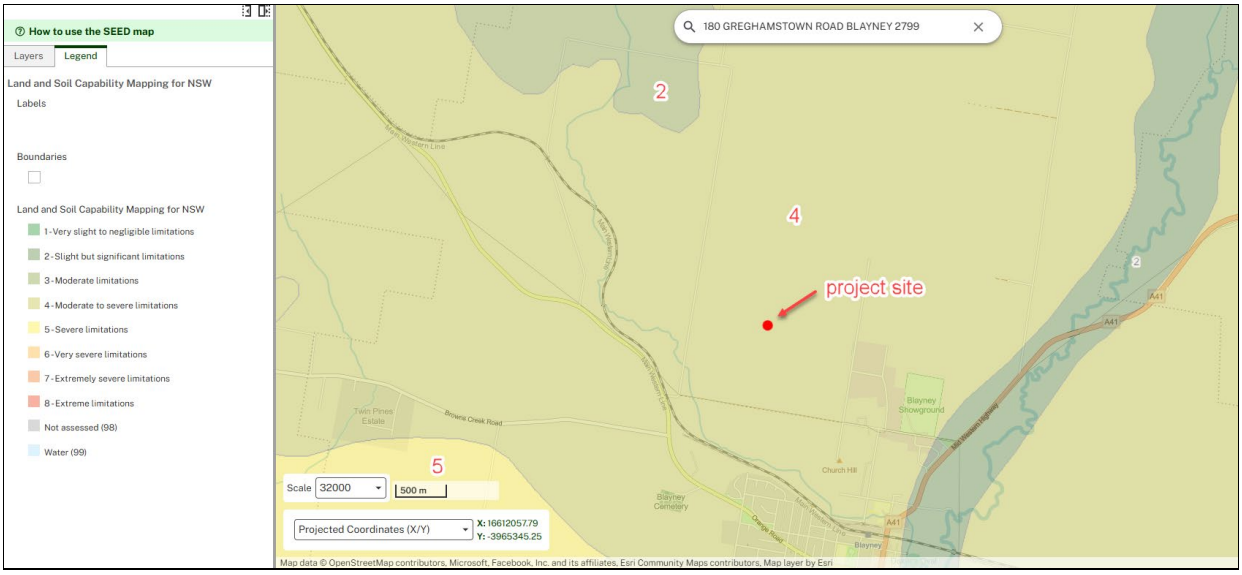


Figure 16: Land capability mapping. Source: SEED

DPIRD Agriculture has recently released draft mapping of *State Significant Agricultural Land* in NSW under *SEPP (Primary Production and Rural Development) 2019*. The project site is not mapped as being *State Significant Agricultural Land* under *State Environmental Planning Policy (Primary Production) 2021* as shown in Figure 17 below.

Figure 17: Draft State Significant Agricultural Land Map. Source: DPI 2022

Strategic regional land use mapping in Figure 18 indicates that the project site is not mapped as Biophysical Strategic Agricultural Land (BSAL). Such land is considered to be of high quality soil and water resources capable of sustaining high levels of productivity.

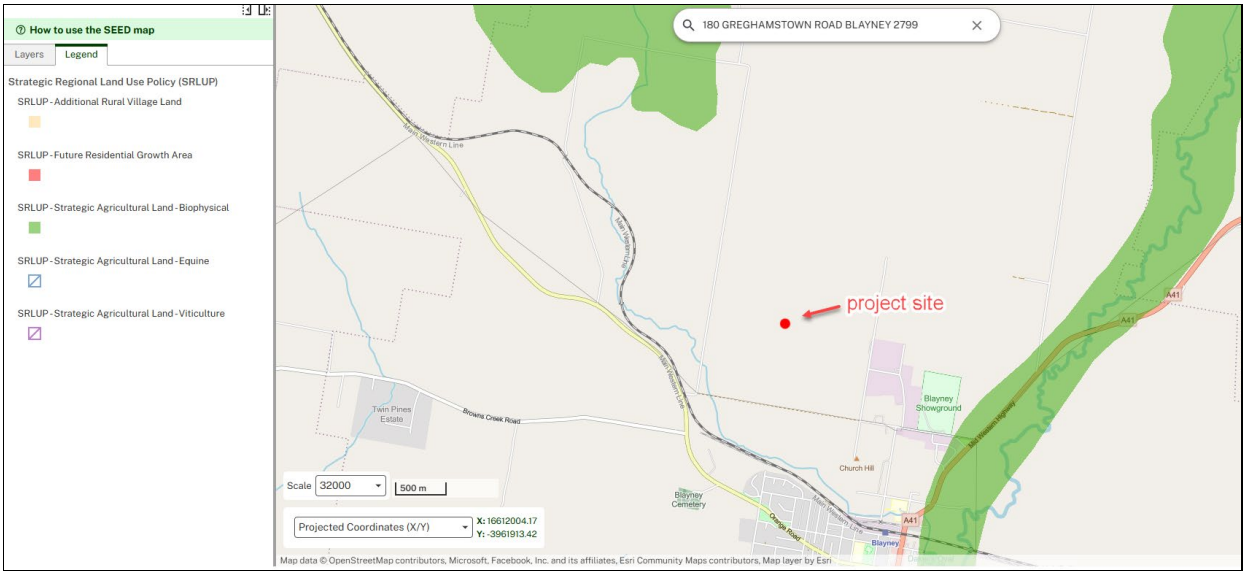


Figure 18: Strategic Regional Land Use Policy. Source: SEED

Important Agricultural Lands are currently being mapped across NSW by the Department of Primary Industries. The purpose of this mapping is to identify land which has the inherent capability of being productive with minimal input and to assist in making planning decisions about agricultural land.

5.8.3 Agrivoltaics

Heat island (Large Scale Solar Energy Guideline – for consideration only)
Where a solar energy project is located adjacent to a horticultural or cropping activity, the solar array should be setback from the property boundary by at least 30m to mitigate any heat island effect.

The amount of land given over to renewable energy production at Blayney will be 32.8 hectares which is 0.02% of the total area of land used for agriculture in Blayney LGA. There will be a minor temporary loss of agricultural land, however, the landowners may continue to farm the project site, for example, by grazing livestock within and around the array. These activities which are defined as extensive agriculture in *Blayney LEP 2012*, do not require development consent in zone RU2 Rural Landscape and may proceed at any time.

EDPR Australia encourages livestock grazing around and within the solar array to continue agricultural production and with the added benefits of reduced land maintenance and fire risk. The solar array will likely improve pasture yields. The panels protect the ground in summer, reducing moisture loss from the soil and even increasing moisture due to condensation on the panels. Experience elsewhere is that the panels also protect lambing ewes from predatory birds and the security fence will help protect the lambs from foxes. The NSW Farmers *Renewable Energy Landholder Guide* (2000) also notes that *'some*

producers have found the area (beneath and around a solar array) *to be an ideal lambing paddock, due to the added shelter and protection provided by chain link perimeter fencing*'. The arrays have been designed so that typically, and allowing for topography, there is ample space between the ground level and the panels for sheep and lambs to graze beneath and between panels. This also has the benefit of keeping the grass low which minimizes the need to slash and reduces fuel for bushfires. Land adjoining the project site is not being used to cultivate crops or for horticulture within 30 metres of the boundary at the present time.

The potential for dual use of rural land, known as agrivoltaics, is gaining media attention as evidenced by an article in the *Sydney Morning Herald* in August 2024. The owner of a property in Glenrowan, Victoria says that *there is no noticeable difference in productivity between the paddocks with solar panels and those without … (the sheep) have shade in summer and shelter from the rain and the grass is greener from the moisture running off the panels*. This practice has been commonplace in Europe and North America for about a decade. Sheep are also protected from predators and are better fed. The chief executive of Farmers for Climate Action is quoted as saying *renewable energy helps make farms more financially secure because it pays the farmer drought-proof income without compromising agricultural productivity* (*Sydney Morning Herald* by Caitlin Fitzsimmons, 18 August 2024).

Plate 3: Sheep grazing beneath solar panels. Source: Chris Grose/Beyond Zero Emissions

5.8.4 Mitigation measures

There are no mitigation measures recommended in relation to agricultural activities.

5.9 Heritage

5.9.1 Indigenous heritage

Aboriginal cultural heritage (Large Scale Solar Energy Guideline – for consideration only)
The loss of Aboriginal cultural heritage should be avoided. If losses cannot be avoided, impacts must be minimised. An assessment of the likely impacts on Aboriginal cultural heritage must be undertaken and should include consultation with the Aboriginal community undertaken in accordance with the Aboriginal cultural heritage consultation requirements for proponents and test excavations, if required.

5.9.1.1 Determining whether to use the generic due diligence process

The property lies within the area managed by Orange Local Aboriginal Lands Council. To determine whether due diligence should be carried out a number of questions are posed:

1. *Is the activity a Part 3A project declared under s.75B of the EP&A Act?*

The proposed development is of regional scale and is not considered major development, noting that Part 3A of the EP&A Act no longer exists.

2. *Is the activity exempt from NPW Act or NPW Regulation?*

The proposed development is not exempt from NPW Act or NPW Regulation.

3. *Will the activity involve harm that is trivial or negligible?*

The proposed development will not cause harm that is trivial or negligible and involves ground disturbance.

4. *Do either or both of these apply:*
    - *Is the activity in an Aboriginal Place?*
    - *Have previous investigations that meet the requirements of this code identified Aboriginal objects?*

The site of the proposed development is not a declared Aboriginal Place under the NPW Act and there are no known previous investigations into the presence of Aboriginal objects on the site.

5. *Is the activity a low impact one for which there is a defence in the NPW Regulation?*

The proposed development is not a low impact activity that is listed in the NPW Regulation.

6. *Do you want to use an industry specific code of practice, adopted by the NPW Regulation or other due diligence process?*

There is no industry code that applies to the development of small-scale solar farms or other form of renewable energy that has been adopted under the NPW Regulation. No other due diligence process has been carried out.

It is therefore necessary to follow the generic due diligence process outlined in the *Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW.* This code was implemented by the NSW Government in 2010 to ensure that an adequate due diligence process that addresses Aboriginal cultural heritage issues has been carried out. This process follows the steps shown in Figure 19 below.

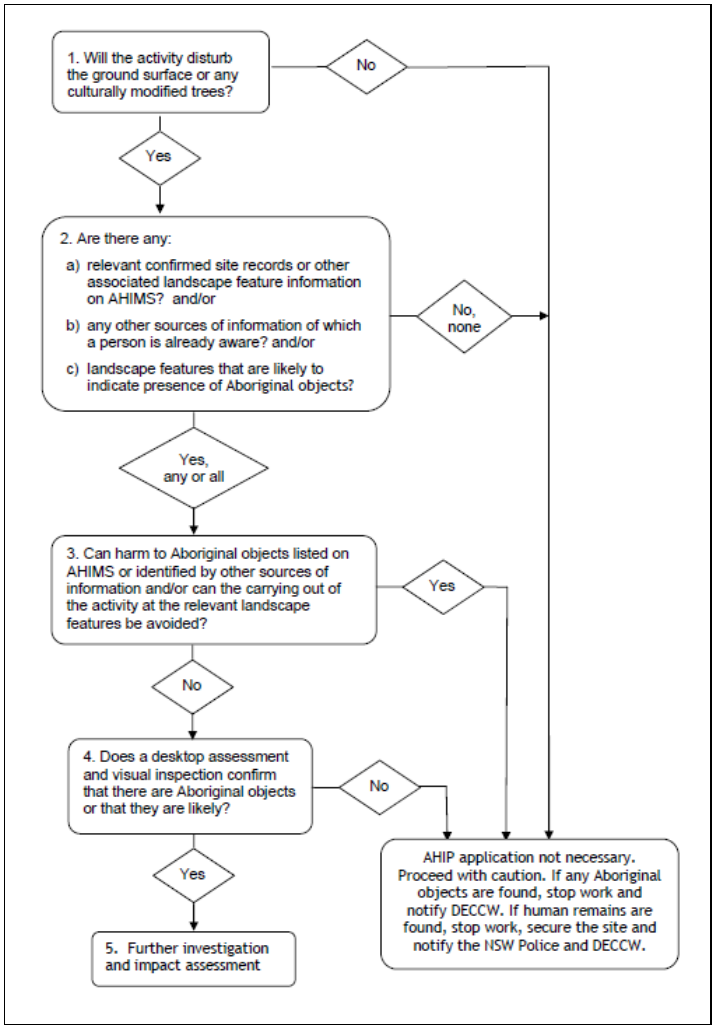


Figure 19: The generic due diligence process.
Source: Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW, 2010

5.9.1.2 Implementing the due diligence process

The generic due diligence process outlined in the *Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW* was implemented to ensure that an adequate due diligence process that addresses Aboriginal cultural heritage issues has been carried out. This process follows the following five steps:

1. Will the activity disturb the ground surface?

Yes. Earthworks will involve trenching which is required for the cabling of each PV array/module to inverters and a substation. Other earthworks would be pile-driving to support module frames, and to enable the placement of concrete slabs and gravel accessways. However, most of the infrastructure would be pre-fabricated off-site, delivered and assembled on-site.

2a. Search the AHIMS database

In accordance with the code, an on-line search was carried out of the *Aboriginal Heritage Information Management Service (AHIMS)* that is maintained by Heritage NSW. The search is part of the due diligence process and remains valid for 12 months.

A search of the project site with a buffer of 50 metres to encompass the development footprint and access tracks was performed on 27 June 2025. The search results are:

- There are no Aboriginal sites recorded in or near the selected location, and
- There are no Aboriginal places that have been declared in or near the selected location.

It is noted that surveys for Aboriginal objects have not been carried out in all parts of NSW and Aboriginal objects may exist on a parcel of land even though they have not been recorded in *AHIMS*. Further, not all known Aboriginal sites are registered on the *AHIMS* database and not all sites consist of physical evidence or remains, e.g. dreaming and ceremonial sites.

2b. Activities in areas where landscape features indicate the presence of Aboriginal objects

The development area does not possess landscape features that indicate the presence of Aboriginal objects. The vast majority of the site has been cleared for many years and used to graze livestock and horticulture. The development area is not located within 200 metres of a waterbody, within a sand dune or on a ridge top, ridgeline or headland, is not located within 200 metres of a cliff face or within 20 metres

of a cave, rock shelter or cave mouth. There is a very low probability of Aboriginal objects occurring on the project site.

3. Can you avoid harm to the object or disturbance of the landscape features

This step only applies if the proposed development is on land that is not disturbed land or contains known Aboriginal objects. The development area has been disturbed and farmed, does not possess significant landscape features and no known Aboriginal objects are listed in *AHIMS*.

4. Desktop assessment and visual inspection

This step only applies if the proposed development is on land that is not disturbed land or contains known Aboriginal objects. A site inspection was made on 6 December 2022 and there was no obvious evidence of any artefacts or items of cultural significance on the surface of the land.

5. Further investigations and impact assessment

A basic search of *AHIMS* records has been carried out and the generic due diligence process has been implemented. It is considered that extensive search of *AHIMS* records or further investigations and an *Aboriginal Heritage Impact Permit* are not required as there are no Aboriginal sites or places that have been recorded or observed on the project site and the landscape features of the site do not indicate the presence of any Aboriginal cultural objects.

Orange LALC has been advised of the plans to develop the solar farm by email. As not all culturally significant items or places are made public and listed on AHIMS, a request was forwarded to the LALC enquiring as to whether the organization has any knowledge of Indigenous items or places of significance on the property and whether a site survey is required to be carried out prior to commencement of works.

A response has not been received from Orange LALC regarding the subject application, however, it is assumed that a site survey should be carried out before any work commences to determine whether an *Aboriginal Cultural Heritage Assessment* is necessary and subsequently whether an *Aboriginal Heritage Impact Permit* is required to be obtained.

5.9.2 Non-indigenous heritage

Non-Aboriginal heritage (Large Scale Solar Energy Guideline – for consideration only) An assessment is required of the likely impacts on archaeological objects and places.

The site of the proposed Blayney 4C & 7C Solar Farm + BESS is not listed as an item of heritage significance in *Schedule 5 Environmental heritage* of *Blayney Local Environmental Plan 2012*. There are no heritage items considered to be located in the vicinity of the project site meaning that a heritage management document is not required.

5.9.3 Mitigation measures

There are no recommendations in relation to Indigenous or non-Indigenous heritage.

5.10 Glint and glare

5.10.1 Assessment of impacts

Glint and glare principles (Large Scale Solar Energy Guideline – for consideration only)

1. Solar panels should be sited to reduce the likely impacts of glint and glare.
2. Solar panels and other infrastructure should be constructed of materials and/or treated to minimise glint and glare.
3. If a large scale-solar energy development is likely to exceed the relevant criteria for glare and standards for glint, mitigation strategies must be adopted to reduce impacts.

A *Glint and Glare Assessment* has been carried out using the Solar Glare Hazard Analysis Tool by ITP Renewables. The findings of the assessment are summarized below. Reference should be made to the *Glint and Glare Assessment* that is submitted with the development application for further information or clarification of any matter concerning the assessment and recommendations.

The *Glint and Glare Assessment* is based on identifying the potential sensitive receptors in close proximity to the project site having regard to the elevation of the site relative to surrounding land and structures or vegetation that would act as visual barriers. The analysis is desktop and is considered to represent the worst-case scenario as modelling is unable to capture all vegetation and structures that may obstruct glint and glare to a particular receptor. If necessary, where potential glare and glint impacts are assessed mitigation measures are recommended to reduce potential impacts to an acceptable level.

5.10.2 Findings

The results of the analysis indicated 29 observation points, 14 road routes and 1 rail route may receive green glare, while 1 observation point and 8 road routes may receive yellow glare. Yellow glare has the potential to cause an after-image to observers, while green glare has low potential to cause after-image.

Yellow glare experienced along the road routes did not exceed 15 minutes in a single day and is generally limited to small sections of the roads. However, drivers navigating the intersection of Millthorpe Road and Browns Creek Road will be subject to glare, which may require mitigation through the extension of the vegetation screening around the western side of the site.

While the daily glare experienced by the impacted locations is only for short durations, it is recommended extending the screen from the southern boundary to partially screen the south-western boundary of the development area to mitigate glare potential to locations south-west of the project site. However, the analysis does not consider obstructions such as topography, vegetation, and structures that may impede the line of site between receptors and the development. As such, the results are conservative and further analysis of the visual contact between these points may show landscape features or structures mitigating glint and glare impacts.

As a result of the glare study, it is believed that the proposed vegetation around the site, with the addition of vegetation on the western boundary will be sufficient to mitigate visual impacts of glare in most cases. Where yellow glare is experienced, the durations are short and low traffic is expected in these areas. The results of the Glint and Glare Assessment are illustrated in Figure 20 below.

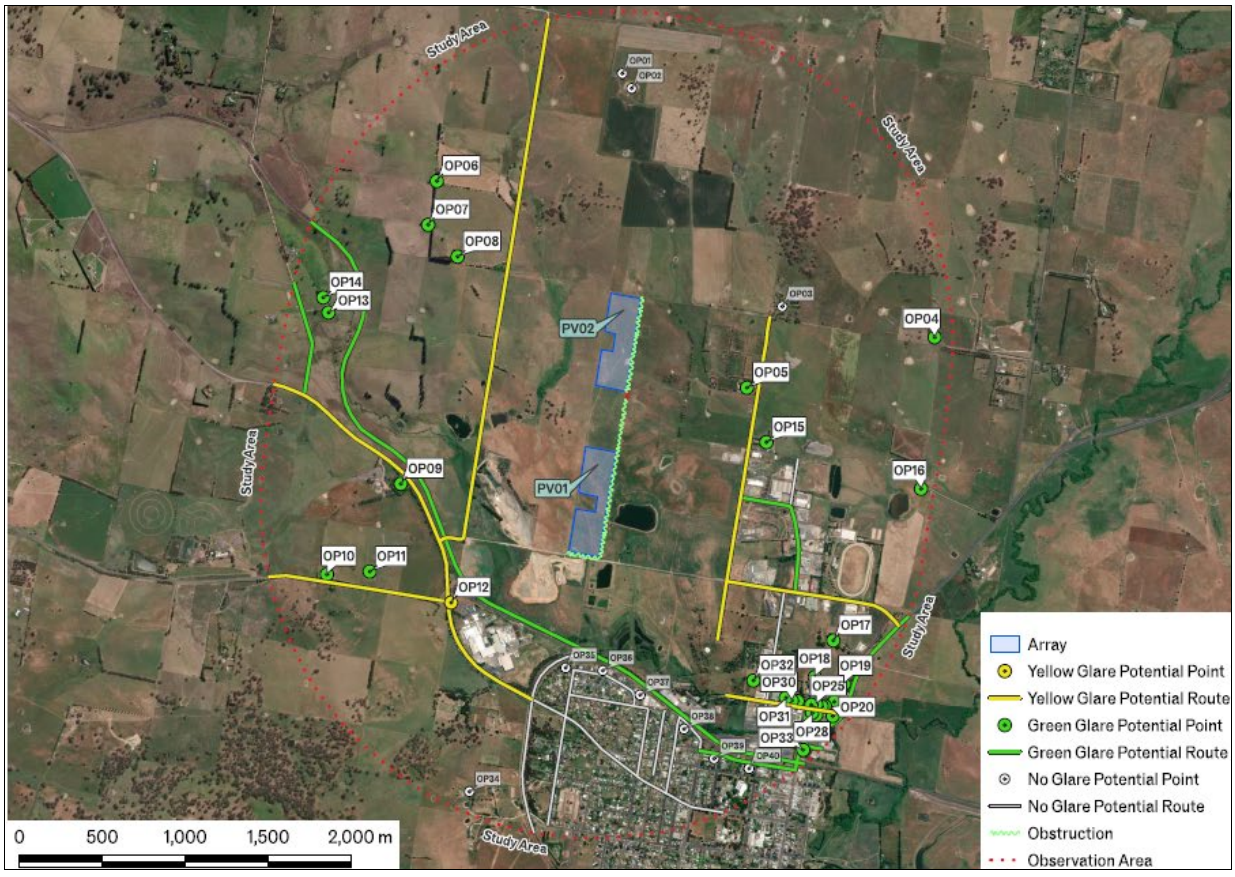


Figure 20: Results of glint and glare assessment. Source: ITP Renewables

5.10.3 Mitigation measures

Consider extending the landscape screen around the south-western corner of the project to mitigate glare potential at road route locations.

NOTE: Observation points to the south-west of the project site will not have direct line of sight to the development due to the presence of structures on intervening land and topography. It is therefore not necessary to provide landscape screening along the western boundary or at the southern end of the western boundary.

5.11 Landscape character and visual amenity

5.11.1 Assessment of impacts

Visual amenity principles (Large Scale Solar Energy Guideline – for consideration only)

1. The baseline character of the landscape must be determined through engagement with the community.
2. Applicants must consider landscape character and visual impacts early in the site selection and design process to minimise impacts and conflicts where possible.
3. Solar energy projects should be sited and designed to avoid areas with topographical constraints that would increase the visibility of a development.
4. Where solar energy projects are likely to result in moderate or high visual impacts, mitigation strategies must be adopted to reduce or manage impacts.

Impacts on landscape character and visual amenity of the proposed solar farm have been assessed by Zenith Town Planning Pty Ltd. Reference should be made to the *Visual Impact Assessment* that is submitted with the development application for further information or clarification of any matter concerning the assessment and recommendations.

The methodology included site inspections of the location of the proposed works and the surrounding area in December 2022 to identify potential viewpoints, land uses and characteristics of the surrounding area, and includes an assessment against planning principles for visual impact established by the Land and Environment Court. The assessment estimates the likely impacts on landscape character and viewpoints within a 2 kilometre radius based on the sensitivity to physical change and the magnitude, or relative size and scale, of the works to apply an impact rating. The observation points and public roads shown within the visual assessment catchment are the same as those used for the glint and glare analysis by ITP Renewables, although the eastern and western sides to the urban areas south of the project site are treated as single observation points.

Figure 21: Visual catchment map. Source: ITP Renewables/Google Earth

5.11.2 Findings

The township of Blayney is not mapped as a 'regional city' in *SEPP (Transport and Infrastructure) 2021*. However, impacts on scenic quality and landscape character have been assessed in accordance with that state policy.

The overall impact of the proposed Blayney 4C & 7C Solar Farm + BESS on landscape character is assessed to be low-moderate for both private property and the public domain. The existence of other primary production uses and general industry within close proximity to the project site have already compromised the character of the rural landscape at the northern edge of the township and will temper the impact of a new land use on that character. Despite the rural zoning, the area north of Blayney township is also nominated for future industrial expansion.

The Church Hill lookout on Lowe Street and two dwellings (OP4 and OP15) to the east have a visual impact rating of high. There are several dwellings within OP19 the cluster of dwellings zoned urban residential to the south of the site have an impact rating of high due to being in close proximity to the

project site and are able to look upslope to the project site. Other dwellings within this cluster have the potential for a filtered line of sight to the array.

A further five dwellings (OP1, OP2, OP3, OP5 and OP20) have a visual impact rating of moderate due to being in mid-range proximity to the site, at an elevation above the project site or with potential views of the array.

The visual impact is assessed to be high on the rail line south of the project site and Marshalls Lane, Lowe Street and some roads within the cluster of urban dwellings to the south of the site. However, the observation points to the south-west of the project site will not have direct line of sight to the development due to the presence of structures on intervening land and topography. It is therefore not necessary to provide landscape screening along the western boundary or at the southern end of the western boundary as discussed in the *Glint and Glare Assessment*.

On balance and having regard to other matters for consideration under section *4.15 Evaluation* of the *Environmental Planning and Assessment Act 1979*, any impacts are considered acceptable given that:

- Visual and scenic amenity impacts can be partially mitigated by vegetation screening along the southern and eastern boundaries of the project site,
- The project will generate employment opportunities during the construction phase and once operational will provide employment for maintenance crews,
- the solar farm and BESS will contribute to renewable energy generation and provide a source of electricity for local domestic and commercial use whilst at the same time assisting to reduce greenhouse gas emissions and our reliance on fossil fuels, and
- The solar farm will demonstrate the commitment of the community of Blayney to renewable energy and will assist the NSW Government to meet its emissions reduction target.

Plate 4: Looking north-west over the project site from Church Hill lookout

Plate 5: Looking towards Blayney from the project site

5.11.3 Mitigation measures

a. It is recommended that vegetation to be planted as a landscape screen along the southern and eastern boundaries as shown on the General Arrangement Plan comprising shrubs or trees that grow to a maximum height of 3 metres so as to not interfere with sunlight access to the array,

b. The landscape screen be planted to a width of 3 metres with stepped plantings to ensure dense screening, and

c. All plants used in the landscape screen should be endemic to the locality of Blayney to ensure that the vegetation contributes to the rural landscape character and enhances local biodiversity values.

5.12 Waste management

Waste management principles (Large Scale Solar Energy Guideline – for consideration only)

1. Construction waste from large-scale solar energy projects must be minimised and the use of reusable and recyclable materials should be prioritised where possible.
2. Impacts on local waste management facilities must be minimised as far as practicable during construction, operation and decommissioning.
3. Recycling of photovoltaic panels and associated equipment should be prioritised and maximised as far as possible to avoid landfill.

5.12.1 Assessment of impacts

A *Waste and Decommissioning Assessment* of the waste generated during construction and operation of the proposed solar farm has been carried out by EDPR Australia to determine the appropriate means of waste disposal and recycling. The findings of the assessment are summarized below. Reference should be made to the *Waste and Decommissioning Assessment* that is submitted with the development application for further information or clarification of any matter concerning the assessment and recommendations.

The largest amount of waste will be generated during the construction phase and be classified as general solid waste (non-putrescible). Wastes would include wooden pallets, cardboard, plastics, green waste and domestic waste. Construction of a solar farm would not generate any putrescible waste products. Minimal waste would be generated when the farm is operational other than small amounts of replacement parts and packaging required for maintenance and repair works.

Local waste management facilities and capacities are identified in the assessment. Technology for recycling of PV panels is advancing rapidly worldwide and while recycling options currently exist, they are likely to be more advanced and readily available at the time of decommissioning. Options for recycling of PV panels should be reviewed as the project progresses.

Estimates of waste materials and proposed management arrangements for each phase of the development project are provided in Table 14 below.

Table 14: Estimated waste materials and waste management arrangements

Waste	Source	Estimated quantity (tbc by contractor)	Bin/container	Disposal and management
Commissioning				
Cardboard	• Solar panel cardboard packaging	30m^3	Cardboard only recycling skip bin (3)	Laydown area to set up skip bins for transfer to waste contractor's off-site facilities and/or an alternative public waste management facility
Wooden pallets	• Solar panel shipment • Solar tracker mounting shipment	97 m^3	Landfill skip bin (15)	Transfer to waste contractor's facilities or to an alternative public waste management facility
Plastics	• Plastic pipe offcuts/scrap • Solar panel plastic wrapping • Drums used to temporarily store diesel fuel and water • Electric cable reels	Minimal		Transfer to waste contractor's facilities or to an alternative public waste management facility
Scrap metal	• Electric cable waste	Minimal		Transfer to waste contractor's facilities or engage a scrap metal merchant

Waste	Source	Estimated quantity (tbc by contractor)	Bin/container	Disposal and management
Concrete	· Excess concrete waste from inverter and battery foundations and piling works	Minimal		Specialised concrete recycling for repurposing into recycled products
Chemicals	· Used lubricating oils and filters · Unused or spent chemicals	Minimal	-	Fluids recycled where possible, or transfer to waste contractor's facilities
Operation				
	· Waste as a result of maintenance or replacement of equipment	Minimal	-	Taken offsite to appropriate recycling/disposal
Decommissioning				
PV panels	· Glass for panels · Silicon for wafers · Supporting poles and mounts	10,300 panels (per site), 260 tonnes glass 38 tonnes silicon for wafers	-	Laydown area to set up skip bins for transfer to waste contractor's off-site facilities or to appropriate recycling facility
Scrap metal	· Electrical cable waste	860 tonnes scrap metal	Landfill skip bins	Transfer to waste contractor's facilities
Equipment	· Inverters and batteries	240 m^3	Landfill skip bins	Transfer to waste contractor's facilities
Concrete	· Foundations of the inverter, transformer and battery	19 m^3	Concrete recycling bin	Specialised concrete recycling for repurposing into recycled products
Other	· Fencing and storage containers	40-ft container (2)	-	Removed from site and reused where possible

Waste management should be predicated on the international hierarchy of waste management to avoid/reduce, reuse, recycle, recover, treat and dispose of waste products to avoid or reduce waste

materials where possible, and to re-use, recycle and recover the majority of waste materials generated during each of the construction, operational and decommissioning phases.

5.12.2 Mitigation measures

It is recommended that a waste management plan be developed to provide detailed procedures to manage the waste stream.

The plan should contain:

- Strategies to reduce waste during all project phases,
- Recycling, re-use and recovery strategies and opportunities,
- Classification of all waste streams with a tracking register and details,
- On site recycling management,
- Allocation of responsibilities for recycling, re-use and disposal, and
- Reporting and notification procedures if a waste incident occurs and there is a threat to the environment.

5.13 Decommissioning

Decommissioning and rehabilitation principles (Large Scale Solar Energy Guideline – for consideration only)

1. The land on which a large-scale solar energy project and supporting infrastructure is developed must be returned to pre-existing use if the project is decommissioned.
2. If operations cease, infrastructure (including underground infrastructure) should be removed unless there is significant justification for retaining it.
3. Land must be rehabilitated and restored to pre-existing use, including the pre-existing LSC class, if previously used for agricultural purposes.
4. The owner or operator of a solar energy project should be responsible for decommissioning and rehabilitation, and this should be reflected in an agreement with the host landholder.

5.13.1 Assessment of impacts

The operating life of the Blayney 4C & 7C Solar Farm + BESS (excluding the construction and decommissioning phases) is expected to be approximately 35 years depending upon market conditions. The proponent is seeking a flexible approach to any limits imposed on the period of operation of the solar farm that enables the operator to respond to market conditions and any technological changes that occur over the next few decades.

Upon decommissioning all infrastructure, including cabling and panels and mounting frames including footings and inverters would be disassembled and removed from the site. Panels may contain small amounts of silver, tin and lead, much of which are recoverable and also disposed of (if applicable) in a safe manner at decommissioning stage. The panels used are identical to those found in residential rooftop solar panels across Australia. Solar panels are made almost entirely with abundant, earth-friendly materials like glass, aluminium, copper, and silicon. Solar farms do not produce air or water pollution or greenhouse gases during operation.

Decommissioning will involve:

- Notification of stakeholders (e.g. Essential Energy, Blayney Shire Council) of proposed de-energisation,
- De-energisation of the solar farm and disconnection of assets,
- Removal of PV modules and associated infrastructure,
- Removal of electrical wiring, and
- Remediation of land.

Relevant equipment will be brought on to the site to facilitate decommissioning, including amenities for site crew for the duration of the works. This equipment may include mobile cranes, excavators, skid steers, loaders, rollers/compactors, pile drivers, telehandlers, skip bins, water carts, temporary shipping containers for storage, site office and site ablution blocks.

Full details of the process are provided in the *Waste and Decommissioning Assessment* prepared by EDPR Australia. Reference should be made to that report for an explanation of each step in the decommissioning process.

5.13.2 Mitigation measures

There are no mitigation measures in relation to decommissioning.

5.14 Health

Health (Large Scale Solar Energy Guideline – for consideration only)
Applicants should consider the power frequency and electric and magnetic field exposure guidelines referenced by the Australian Radiation Protection and Nuclear Safety Agency.

5.14.1 Assessment of impacts

The information presented in this section has been sourced from the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA). It includes a description of the type of electromagnetic radiation that may be produced by the generation and distribution of electricity.

The generation, distribution and use of electricity can produce extremely low frequency (ELF) electromagnetic fields (EMF) from electrically charged particles. The electric field is produced by the voltage whereas the magnetic field is produced by the current. The strength of the electric field is measured in units of volts per metre whilst the strength of the magnetic field is expressed in units of tesla (T), microtesla (μT), gauss (G) or milligauss (mG).

ELF EMF is produced by both natural and artificial sources. Naturally occurring ELF EMF is associated with atmospheric processes such as ionospheric currents, thunderstorms and lightning. Artificial sources are the dominant sources of ELF EMF and are usually associated with the generation, distribution and use of electricity at the frequency of 50 or 60 Hz. The widespread use of electricity means that people are exposed to ELF electric and magnetic fields in the home, in the environment and in the workplace.

According to the Australian Radiation Protection and Nuclear Safety Agency, which maintains continual oversight of emerging research into the potential health effects of the EMF exposure, there is no established evidence of health effects from exposure to electric and magnetic fields from powerlines, substations, transformers or other electrical sources, regardless of proximity.

5.14.2 Mitigation measures

There are no mitigation measures in relation to health impacts.

6. CONCLUSION

6.1 Findings

6.1.1 Suitability of the site

The site selection process has involved liaison with Blayney Shire Council officers; identification of environmental and topographical constraints; existence of necessary infrastructure including accessways, power lines and sub-stations; proximity to the settlement of Blayney to enable supply of power direct to the township; sufficient cleared land area; willingness of the land owner to develop the property and enter lease arrangements to facilitate the solar farm; and the availability of solar resources.

The site is considered suitable for the proposed development of the Blayney 4C & 7C Solar Farm + BESS. A connection and capacity are available to the Essential Energy zone substation to transfer power generated by the solar panels to the township and on to the grid.

The development area is relatively free of constraints and is accessible to large delivery vehicles during the construction phase and for utility vehicles for ongoing maintenance.

The rural landscape is a primary production environment and appropriate uses including renewable energy facilities are permissible in the zone. The development is of a type that is suited to a rural location due to the land area required, proximity to an urban centre and access to existing energy infrastructure.

The presence of the solar farm in the landscape can be reversed without permanent impact. The land will return to its current appearance after the solar farm is decommissioned in approximately 35 years' time. The process of decommissioning will see the removal of all panels, supporting frames and ancillary items such as the inverter stations and fencing.

6.1.2 Triple bottom line assessment

Environmental

The likely impacts of the development have been considered in this Statement and supporting documents. Considerations include impacts on biodiversity, natural hazards, visual and scenic amenity, glare and glint, traffic, noise, air quality, water resources, indigenous and non-indigenous heritage, agricultural land and the community and the local economy. Any impacts on these interests have been found to be acceptable and mitigation measures have been recommended where necessary.

There will be minimal dust and noise emissions during construction and no dust or air emissions resulting from the development during the operational phase of the facility. Dust generated by any nearby industries would be managed through regular clearing of solar panels and is not considered a threat to the effective operation of the facility.

Noise impacts once operational have been assessed to be within noise management levels and therefore are not expected to interfere with inhabitants of dwellings near the site.

An intermittent 1st order stream runs in each of the northern and southern sections of the project site that drain to farm dams. Some fencing and part of each array is to be located over and within 10 metres of the watercourse. The project is integrated development as a controlled activity approval may be required to be issued under section 4.46 of the *Environmental Planning and Assessment Act 1979* for works on or over mapped watercourses.

Social

It is considered that the solar farm can co-exist with surrounding urban, rural and industrial activities. It is recommended that the arrays be screened using vegetation types that are endemic to the Blayney district which will ensure that visual impacts are mitigated as much as possible and scenic amenity is maintained.

An AHIMS search has not identified any items or place of significance to the local Aboriginal community and there are no non-Indigenous heritage items in the vicinity of the project site.

According to the Australian Radiation Protection and Nuclear Safety Agency, which maintains continual oversight of emerging research into the potential health effects of the EMF exposure, there is no established evidence of health effects from exposure to electric and magnetic fields from powerlines, substations, transformers or other electrical sources, regardless of the proximity, causes any health effects. The location of the solar farm and the distance separation between nearby dwellings and the site mean that any potential impacts on health are mitigated.

Economic

The solar farm will generate community economic benefits through local employment opportunities during the planning and construction phases as well as maintenance and inspection jobs once operational. The development of a solar farm will create a new market for local contractors and expand diversity of income for the landowners.

The project site represents 0.02% of agricultural land in Blayney LGA. The land is of moderate capability with moderate to high limitations that restrict land management options for regular high-impact land uses such as cropping, high-intensity grazing and horticulture. The site is not mapped as state significant agricultural land, however, there will be no permanent loss of agricultural land as the array can be removed once the facility is decommissioned. Livestock grazing amongst the array is permitted without consent and the landowner is encouraged to re-commence agricultural use of the land once the facility is operational.

6.1.3 Potential cumulative impacts

Cumulative impacts (Large Scale Solar Energy Guideline – for consideration only)
Any cumulative impacts from other developments (proposed, approved and operative), especially biodiversity, socio-economic and construction traffic, must be assessed in accordance with the department's Cumulative Impact Assessment Guidelines for State Significant Projects (PDF 1,393 KB) (July 2021, or its latest version).

The cumulative impacts of the proposed development are minor. A 5MW solar farm was granted deferred commencement consent by the Western Regional Planning Panel on 22 August 2024. This facility is to be located at 269 Marshalls Lane to the north of the subject site over 11 hectares of land zoned RU2 Rural Landscape. This solar farm is made permissible by SEPP (Transport and Infrastructure) 2021. A deferred commencement condition requires the land title for a Crown road adjoining the southern boundary of the site to be transferred to the owner of 269 Marshalls Lane to facilitate legal access.

Number 269 Marshalls Lane adjoins the subject site, however, the approved facility is to be placed to the north-east and not on land that is adjacent the proposed Blayney 4C & 7C Solar Farm and BESS. Together the approved facility plus the proposed development will occupy 43.8 hectares which represents 0.03% of agricultural land in Blayney LGA. The impacts on biodiversity will be minimal – 4 native trees may need to be removed to provide access to the approved development and no vegetation is to be removed for the proposed Blayney 4C & 7C Solar Farm and BESS. Landscape screening for both facilities along the entire eastern boundaries will protect visual and scenic amenity, and noise and air quality is unlikely to disturb occupants of nearby land. Traffic management will alleviate significant impacts on local roads during construction of each facility, although it may be appropriate to stagger construction of each facility to avoid congestion of heavy vehicles delivering components to each site.

There are other renewable energy facilities in Blayney LGA, such as a wind farm near Lake Carcoar south of Blayney. This facility comprises 15 turbines that generate 10MW. This facility is located 12 kilometres south-west of Blayney and is not in close proximity to the project site.

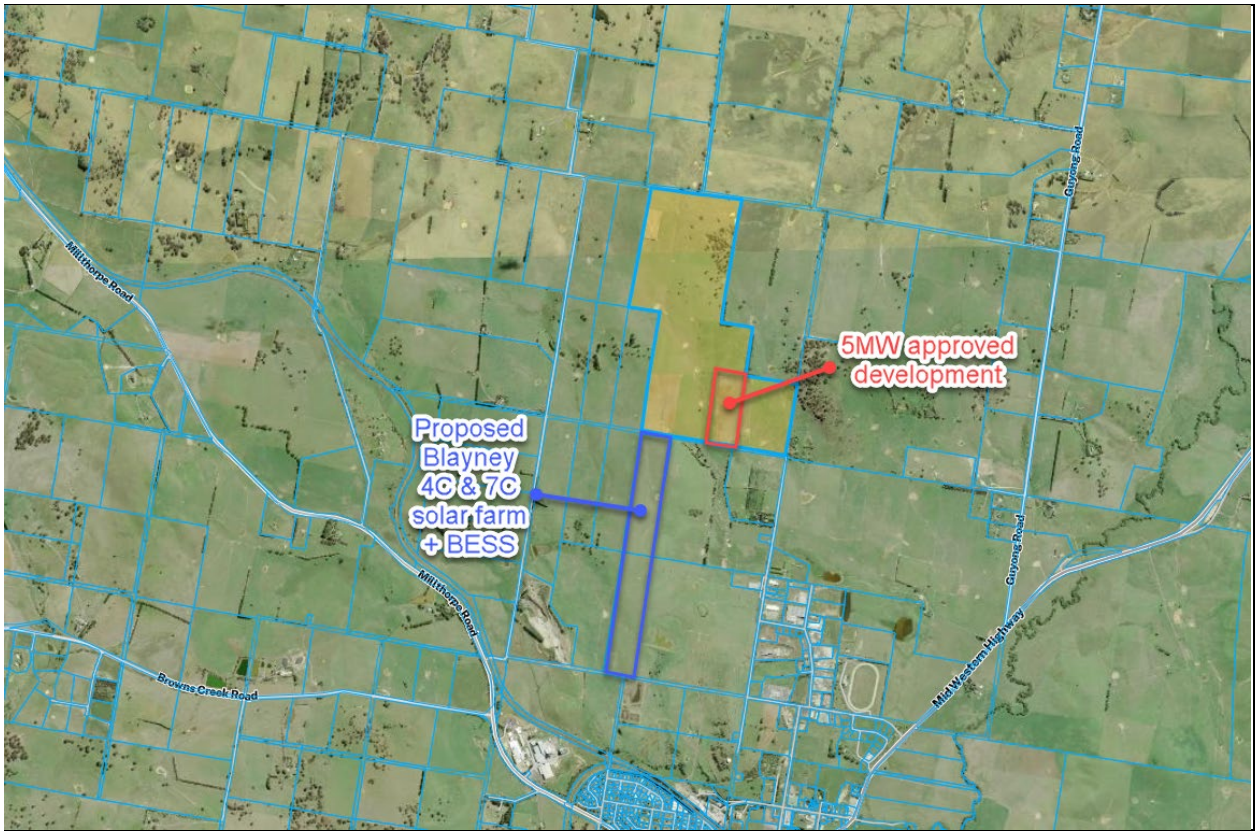


Figure 22: Approved and proposed solar facilities, Blayney

The use is suited to a semi-rural location due to the need for a large area of land. The addition of Blayney 4C & 7C Solar Farm and BESS to the area would not detract unreasonably from local amenity or the natural environment. The long-term presence of wind farms in the Blayney district has been accepted by the community which appears to have embraced the renewable energy sector.

6.1.4 Consistency with planning framework

Strategic context (Large Scale Solar Energy Guideline – for consideration only)
Applicants should consider whether the project is consistent with local or state planning strategies, and government policies such as climate change and energy policies, including the capability of the project to contribute to energy security and reliability.

The proposed development is consistent with the strategic planning framework that applies to the local government area, the site itself and to the development of electricity generating works. The solar farm is prohibited in zone RU2 Rural Landscape under provisions of *Blayney LEP 2012* but made permissible by *SEPP (Transport and Infrastructure) 2021*.

Regional cities (Large Scale Solar Energy Guideline – for consideration only)
Where an applicant proposes a large-scale solar development within a mapped area in proximity to a regional city, the provisions within the Transport and Infrastructure SEPP should be clearly and comprehensively addressed.
Residential and commercial developments that have been approved (but not yet commenced) should be included when identifying the surrounding urban environment.
The applicant should consult with the relevant council and identify any land identified for future growth in strategic planning documents including local strategic planning statements and housing strategies.

The township of Blayney is not mapped as a 'regional city' in *SEPP (Transport and Infrastructure) 2021*. However, impacts on scenic quality and landscape character have been assessed and can be mitigated by the proposed vegetation screening of the solar arrays.

The project site is not nominated for future investigation for urban development or as an urban release area.in the *Blayney Shire Settlement Strategy*. It is included within a future investigation area for industrial development in the North Blayney Industrial Lands Strategy, however, demand has not yet driven any rezoning proposals. Other primary industry (a new private quarry) has been approved since the strategy was prepared in 2015. The solar farm is expected to have an operating period of 35 years after which the land may be developed for industrial uses if required.

Although not located within the Central West Renewable Energy Zone, the proposal is not inconsistent with the planning priorities, goals and actions of the *Central West and Orana Regional Plan 2041* and the *Blayney Shire Local Strategic Planning Statement*. The project also links with Council's goals to facilitate renewable energy generation to power local businesses and households as stated in the *Renewable Energy Action Plan*.

6.1.5 Contribution to government targets

Public interest (Large Scale Solar Energy Guideline – for consideration only)
Applicants should consider an analysis of the public interest, including the public interest in renewable energy, the objects of the EP&A Act and the principles of ecologically sustainable development.

Electricity generated by the system will be directed to the settlement of Blayney via existing electrical infrastructure to contribute to the supply of electricity for use by households and businesses. Any surplus electricity will be stored by the BESS and/or sent to the grid and any deficit will be drawn from the BESS and/or the grid. As well as the potential to utilize local contractors to construct the facility, the township will benefit through the ability to use clean energy that is generated adjacent the settlement.

Currently, Australia's energy grid operates on about 60% coal and 40% renewables. Australia subsidises fossil fuels by $65 billion a year, or 2.5 per cent of GDP. The International Monetary Fund has found that in 2022 Australia granted $9.7 billion in explicit fossil fuel subsidies, such as household electricity bill relief or tax breaks for coal and gas producers. In addition, there was another $55.6 billion in implicit subsidies, with taxpayers footing the bill for premature deaths and poor health caused by air pollution, as well as environmental damage and global warming.

The NSW Government is committed to achieving a 50% emissions reduction by 2030 and net zero emissions by 2050. The Commonwealth Government's target is to reduce emissions in 2030 to 43% below 2005 levels, for 82% of Australia's energy to be generated by renewable technologies in 2030 and net zero in 2050.

The development of the solar farm will assist the transition of our economy from reliance on fossil fuels to renewable sources. It will assist Commonwealth and NSW Governments to achieve targets and objectives relating to emissions to address climate change. Capacity exists to cater for the electricity generated by the proposed solar farm as evidenced by contractual arrangements that are in place with Essential Energy to connect with and contribute to the grid system.

The proposed development satisfies the objects of the *EP&A Act* in that renewable energy will promote the social and economic welfare of the community and a better environment through conservation of fossil fuel resources and use of solar resources to generate energy. The development will facilitate ecologically sustainable development by integrating relevant economic, environmental and social considerations in decision-making about environmental planning and assessment and will promote the orderly and economic use and development of land that satisfies the applicable strategic planning framework.

Solar farms are becoming a common component of rural landscapes and are less intrusive than other forms of electricity generation. The urgency with which we need to develop renewable energy production is now accepted by mainstream society. Given the local, regional and national benefits of renewable energy generation and based on implementation of the recommended mitigation measures to avoid, minimize or mitigate impacts to the existing natural and built environment, the development is considered to be in the public interest.

6.2 Summary of mitigation measures

Table 15 provides a summary of mitigation measures. It is recommended that an environmental management plan be prepared to cover the construction and operational phases. Where necessary the

table includes a recommendation as to whether the mitigation measure should be included in the management plan. In addition to the mitigation measures detailed below, it is recommended that a waste management plan be prepared for inclusion in an environmental management plan.

Table 15: Summary of mitigation measures

Consideration	Mitigation measures	Environmental Management Plan
Biodiversity	By way of a clearing process that minimizes the risk to threatened species that may be opportunistically using the site, it is recommended that: I. Construction limits and exclusion zones be clearly identified prior to work, II. A visual inspection is conducted by environmental staff before construction commences to identify any areas of the site that might be supporting native fauna, III. Vehicle movements around the site will be restricted to the construction footprint and away from any existing native trees bordering the site with flagging exclusion fencing to be installed, IV. Soil disturbance by vehicle and pedestrian access is to be kept to a minimum outside the construction footprint, V. Any weeds removed (particularly those bearing seeds) are to be disposed of appropriately at the nearest waste management facility, and VI. Species selection for any revegetation works is to consider the appropriate PCT for the site and guided by a suitably qualified ecologist or contractor.	Yes, with reference to ongoing site access during both construction and operational phases, and to the storage of materials within the site
Hazards	Implement management measures identified in the *Preliminary Hazard Assessment*.	Yes, for construction and operational phases
Water resources	Design – site drainage and water quality controls: • Undertake hydrological assessment of the sites catchment in accordance with relevant methods outlined in Australian Rainfall and Runoff. • Determine sediment management targets and drainage control standards in accordance with Managing Urban Stormwater: Soils and Construction Vol 1 (Blue Book) (DECC, 2008). • Develop a site erosion and sediment control plan in accordance with the Blue Book. • Develop site drainage design incorporating detention basins and sedimentation management structures where relevant. • Permanent site drainage should coincide with temporary arrangements where possible	Yes, for construction and operational phases. Include an erosion & sediment control plan or soil and water management plan

Consideration	Mitigation measures	Environmental Management Plan
	Construction and/or demolition – site drainage and water quality controls: • Catch drains to be located downslope of any proposed road works. • Install location appropriate sediment fences or other applicable control measures depending on whether the feature is upstream or downstream of a disturbed part of the site or will need to be trafficable. • All stormwater collection points need to have appropriate sedimentation and erosion controls. • Undertake ongoing inspections of stormwater facilities and water control measures to assess their effectiveness. • Vibration grids or wash bays at all construction exits. • Level spreaders at locations where concentrated flow is discharged offsite to ensure sheet flow like conditions are maintained. • Flat land erosion control options include erosion control blankets, gravelling, mulching, soil binder, turfing and revegetation	
	Construction and/or demolition – stormwater point source control: In the event of concrete works: • Do not undertake works if chance of heavy rain. • Store rinsate5 water, if applicable, separately to other water on site and dispose of offsite as appropriate. • Block on site drains in the area of the works and remove any contaminated runoff. In the event that dewatering practices are required: • Pump hose intakes for withdrawing water from excavations will be elevated to minimise sediment pumping and directed to a containment area for settling prior to discharge. • Limit direct discharge off site (consistent with the design requirements for sediment pond discharge). • Stormwater collected on site should be reused where possible. Controls should be inspected and maintained on a regular basis. All water released from sediment basins should be clear or disposed off site by vehicle. • Material and waste storage areas should be designed and operated to minimise interaction with surface waters. • Vehicle washdown areas should be located away from water courses	
Air quality	During construction: • Limit vehicle movements to areas necessary to deliver panels, ancillary structures and equipment • Suppress dust emissions using watering and cease works during dry and windy conditions	Yes, for construction and operational phases

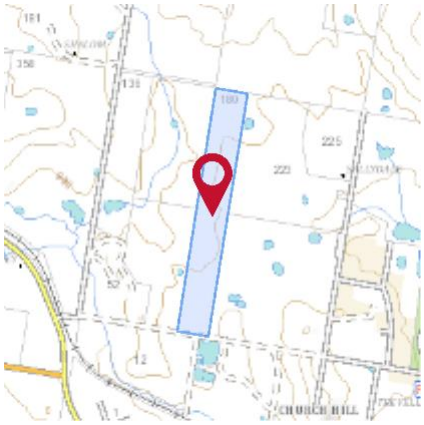
Consideration	Mitigation measures	Environmental Management Plan
	• Ensure ground disturbance is limited to areas necessary to place footings or to be used for access • Ensure minimal handling of excavated materials • Ensure stockpiles of excavated material is bunded and protected from wind and vehicle movements During operation: • Grade and add road base to internal accessways • Revegetate the site with suitable groundcover immediately construction works are completed • Ensure all plant and equipment is maintained in a clean condition and operates in accordance with specifications.	
Noise	No mitigation measures are recommended	n/a
Traffic	No mitigation measures are recommended	n/a
The community & local economy	• labour to construct and maintain the solar farm be sourced from within the Blayney local government area wherever possible • advertising be placed in local media and local businesses contacted to determine whether there is the capacity and expertise available to participate in the construction and ongoing maintenance activities • Ensure that the timing of construction of the solar farm does not coincide with the construction of major infrastructure projects to avoid a shortage of visitor accommodation	n/a
Agricultural production	No mitigation measures are recommended	n/a
Heritage	No mitigation measures are recommended	n/a
Glint and glare	Consider extending the landscape screen around the south-western corner of the project to mitigate glare potential at road route locations. NOTE: Observation points to the south-west of the project site will not have direct line of sight to the development due to the presence of structures on intervening land and topography. It is therefore not necessary to provide landscape screening along the western boundary or at the southern end of the western boundary.	n/a
Visual impacts	• It is recommended that the vegetation to be planted as a landscape screen along the southern and eastern boundaries as shown on the General Arrangement Plan comprise shrubs or trees that grow to a maximum height of 3 metres so as to not interfere with sunlight access to the array, • The landscape screen be planted to a width of 3 metres with stepped plantings to ensure dense screening, and	Yes, for construction phase

Consideration	Mitigation measures	Environmental Management Plan
	• All plants used in the landscape screen should be endemic to the locality of Blayney to ensure that the vegetation contributes to the rural landscape character and enhances local biodiversity values.	
Waste management	It is recommended that a waste management plan be developed to provide detailed procedures to manage the waste stream. The plan should contain: • Strategies to reduce waste during all project phases, • Recycling, re-use and recovery strategies and opportunities, • Classification of all waste streams with a tracking register and details, • On site recycling management, • Allocation of responsibilities for recycling, re-use and disposal, and • Reporting and notification procedures if a waste incident occurs and there is a threat to the environment.	Yes, for construction and operational phases
Decommissioning	There are no mitigation measures in relation to decommissioning.	n/a
Health	There are no mitigation measures in relation to health impacts.	n/a

Attachment A – Property Report

Property Report

180 GREGHAMSTOWN ROAD BLAYNEY 2799



Property Details

Address:	180 GREGHAMSTOWN ROAD BLAYNEY 2799	
Lot/Section /Plan No:	74/-/DP750390	83/-/DP750390
Council:	BLAYNEY SHIRE COUNCIL	

Summary of planning controls

Planning controls held within the Planning Database are summarised below. The property may be affected by additional planning controls not outlined in this report. Please contact your council for more information.

Local Environmental Plans	Blayney Local Environmental Plan 2012 (pub. 16-12-2016)
Land Zoning	RU2 - Rural Landscape: (pub. 21-4-2023)
Height Of Building	NA
Floor Space Ratio	NA
Minimum Lot Size	100 ha
Heritage	NA
Land Reservation Acquisition	NA
Foreshore Building Line	NA

Detailed planning information

State Environmental Planning Policies which apply to this property

State Environmental Planning Policies can specify planning controls for certain areas and/or types of development. They can also identify the development assessment system that applies and the type of environmental assessment that is required.

- State Environmental Planning Policy (Biodiversity and Conservation) 2021: Excluded (pub. 21-10-2022)
- State Environmental Planning Policy (Biodiversity and Conservation) 2021: Land Application (pub. 2-12-2021)
- State Environmental Planning Policy (Exempt and Complying Development Codes) 2008: Land Application (pub. 12-12-2008)
- State Environmental Planning Policy (Housing) 2021: Land Application (pub. 26-11-2021)
- State Environmental Planning Policy (Industry and Employment) 2021: Land Application (pub. 2-12-2021)
- State Environmental Planning Policy (Planning Systems) 2021: Land Application (pub. 2-12-2021)
- State Environmental Planning Policy (Primary Production) 2021: Land Application (pub. 2-12-2021)
- State Environmental Planning Policy (Resilience and Hazards) 2021: Land Application (pub. 2-12-2021)
- State Environmental Planning Policy (Resources and Energy) 2021: Land Application (pub. 2-12-2021)
- State Environmental Planning Policy (Sustainable Buildings) 2022: Land Application (pub. 29-8-2022)
- State Environmental Planning Policy (Transport and Infrastructure) 2021: Land Application (pub. 2-12-2021)

Other matters affecting the property

Information held in the Planning Database about other matters affecting the property appears below. The property may also be affected by additional planning controls not outlined in this report. Please speak to your council for more information

Land near Electrical Infrastructure	This property may be located near electrical infrastructure and could be subject to requirements listed under ISEPP Clause 45. Please contact Essential Energy for more information.
Land near High Pressure Pipelines	This property may be located near High Pressure Pipelines and could be subject to requirements listed under ISEPP Clause 66C. Please contact the relevant consent authority for more information.
Local Aboriginal Land Council	ORANGE
Regional Plan Boundary	Central West and Orana

Attachment B – AHIMS search results

Attachment B

AHIMS Web Services (AWS)
Search Result

Your Ref/PO Number : 1122a

Client Service ID : 1018174

Zenith Town Planning

Date: 27 June 2025

P O Box 591
Moruya New South Wales 2537

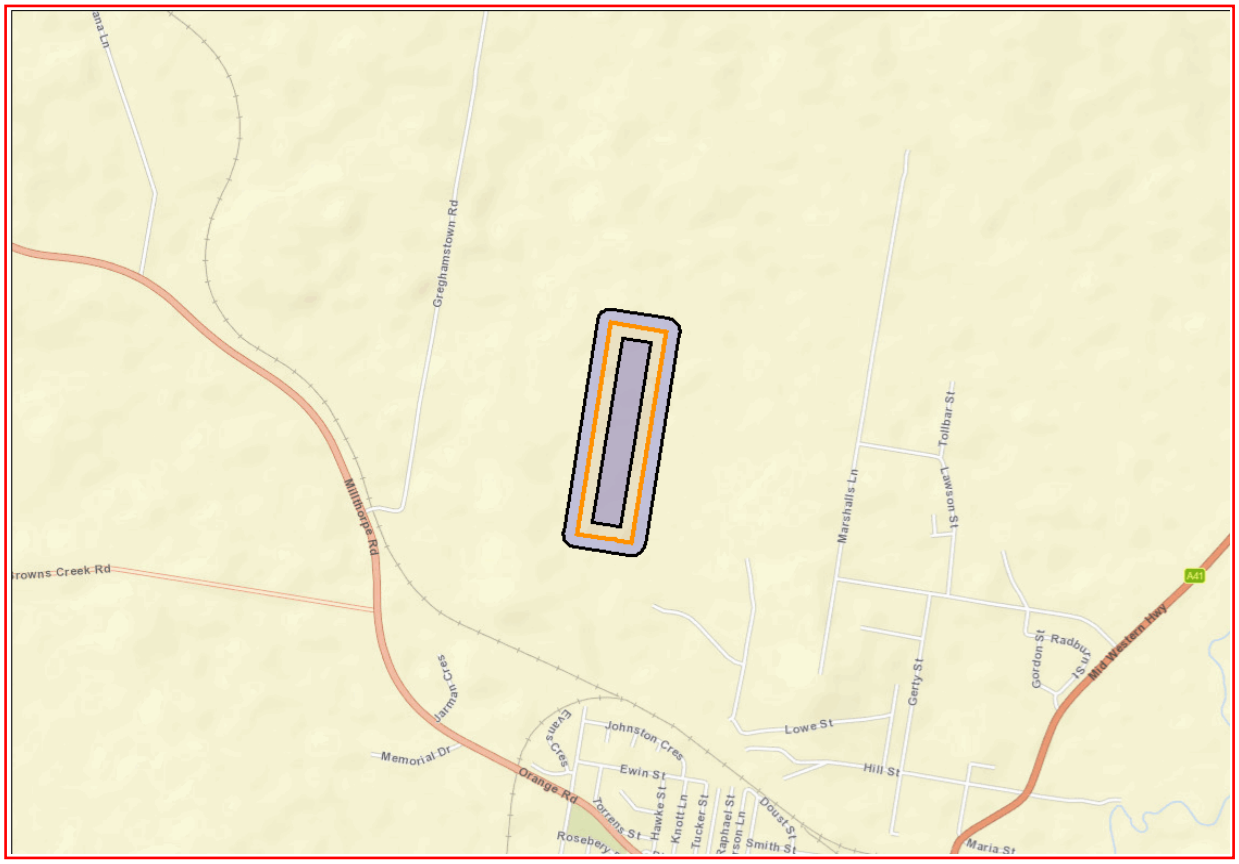
Attention: Allen Grimwood

Email: zenithplan@bigpond.com

Dear Sir or Madam:

AHIMS Web Service search for the following area at Lot : 74, DP:DP750390, Section : - with a Buffer of 50 meters, conducted by Allen Grimwood on 27 June 2025.

The context area of your search is shown in the map below. Please note that the map does not accurately display the exact boundaries of the search as defined in the paragraph above. The map is to be used for general reference purposes only.



A search of Heritage NSW AHIMS Web Services (Aboriginal Heritage Information Management System) has shown that:

0	**Aboriginal sites are recorded in or near the above location.**
0	**Aboriginal places have been declared in or near the above location. ***

If your search shows Aboriginal sites or places what should you do?

- You must do an extensive search if AHIMS has shown that there are Aboriginal sites or places recorded in the search area.
- If you are checking AHIMS as a part of your due diligence, refer to the next steps of the Due Diligence Code of practice.
- You can get further information about Aboriginal places by looking at the gazettal notice that declared it. Aboriginal places gazetted after 2001 are available on the NSW Government Gazette (https://www.legislation.nsw.gov.au/gazette) website. Gazettal notices published prior to 2001 can be obtained from Heritage NSW upon request

Important information about your AHIMS search

- The information derived from the AHIMS search is only to be used for the purpose for which it was requested. It is not be made available to the public.
- AHIMS records information about Aboriginal sites that have been provided to Heritage NSW and Aboriginal places that have been declared by the Minister;
- Information recorded on AHIMS may vary in its accuracy and may not be up to date. Location details are recorded as grid references and it is important to note that there may be errors or omissions in these recordings,
- Some parts of New South Wales have not been investigated in detail and there may be fewer records of Aboriginal sites in those areas. These areas may contain Aboriginal sites which are not recorded on AHIMS.
- Aboriginal objects are protected under the National Parks and Wildlife Act 1974 even if they are not recorded as a site on AHIMS.
- This search can form part of your due diligence and remains valid for 12 months.

Level 6, 10 Valentine Ave, Parramatta 2150
Locked Bag 5020 Parramatta NSW 2124
Tel: (02) 9585 6345

ABN 34 945 244 274
Email: ahims@environment.nsw.gov.au
Web: www.heritage.nsw.gov.au

AHIMS Web Services (AWS)
Search Result

Your Ref/PO Number : 1122b

Client Service ID : 1018177

Zenith Town Planning

P O Box 591

Moruya New South Wales 2537

Attention: Allen Grimwood

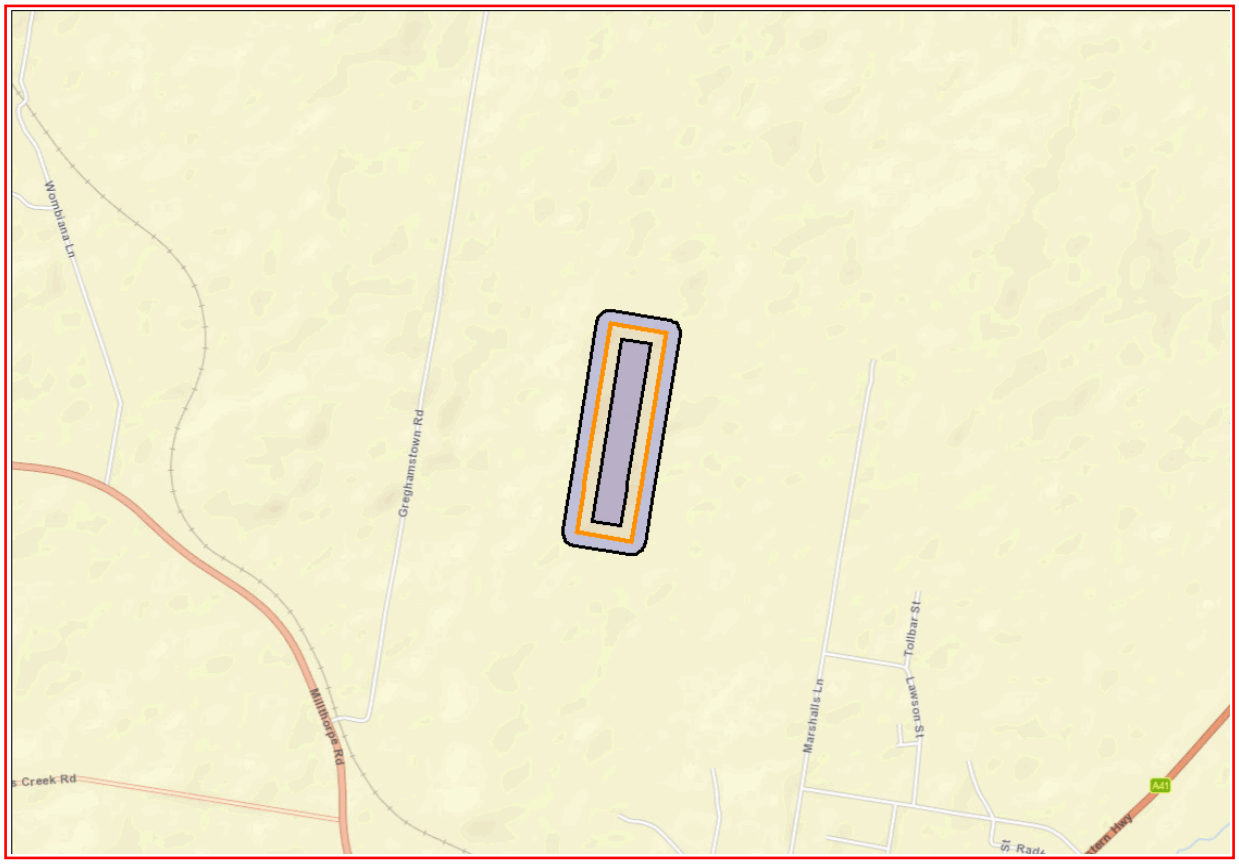
Email: zenithplan@bigpond.com

Date: 27 June 2025

Dear Sir or Madam:

AHIMS Web Service search for the following area at Lot : 83, DP:DP750390, Section : - with a Buffer of 50 meters, conducted by Allen Grimwood on 27 June 2025.

The context area of your search is shown in the map below. Please note that the map does not accurately display the exact boundaries of the search as defined in the paragraph above. The map is to be used for general reference purposes only.



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