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ACRONYMS AND ABBREVIATIONS

AHIMS	Aboriginal heritage information management system
BC Act	<i>Biodiversity Conservation Act 2016 (NSW)</i>
BCD	Biodiversity Conservation Division (of DPIE)
Biosecurity Act	<i>Biosecurity Act 2015 (NSW)</i>
BoM	Australian Bureau of Meteorology
CEMP	Construction Environmental Management Plan
Cwth	Commonwealth
DECCW	Refer to BDC
Development footprint	The area of land that is directly impacted by the proposal including solar array design, perimeter fence, access roads, transmission line footprint and areas used to store construction materials. The development footprint is approximately 92 ha.
Development site	The area of land that is subject to the proposal. The development site is made up of 92 ha and includes the entrance point on Mitchell Highway potentially requiring upgrade works.
DoEE	(Cwth) Department of the Environment and Energy
DP&I	(NSW) Department of Planning and Infrastructure (now DPIE)
DPIE	(NSW) Department of Planning, Industry and Environment (formerly DPE)
EEC	Endangered ecological community – as defined under relevant law applying to the proposal
EIA	Environmental impact assessment
EIS	Environmental Impact Statement
EPBC Act	(Cwth) <i>Environment Protection and Biodiversity Conservation Act 1999</i>
EP&A Act	(NSW) <i>Environmental Planning and Assessment Act 1979</i>
ESD	Ecologically Sustainable Development
FM Act	(NSW) <i>Fisheries Management Act 1994</i>
ha	hectares
Heritage Act	(NSW) <i>Heritage Act 1977</i>
ISEPP	(NSW) <i>State Environmental Planning Policy (Infrastructure) 2007</i>

km	kilometres
LALC	Local Aboriginal Land Council
LEP	Local Environment Plan
m	metres
MNES	Matters of National environmental significance under the EPBC Act (c.f.)
NPW Act	<i>National Parks and Wildlife Act 1974</i> (NSW)
NSW	New South Wales
OEH	(NSW) Office of Environment and Heritage (now BCD)
SEPP	(NSW) State Environmental Planning Policy
SIS	Species Impact Statement
Subject land	All relevant lots affected by the proposal
sp/spp	Species/multiple species
TSC Act	<i>Threatened Species Conservation Act 1995</i> (NSW)

1. INTRODUCTION

1.1. PROPOSAL OVERVIEW

BayWa r.e. Projects Australia Pty Ltd (herein 'BayWa r.e.' or 'proponent') proposes to develop a solar farm at a property on the Mitchell Highway approximately 17 km northwest of Nyngan, central New South Wales (the proposal). The development site is approximately 170 km northwest of Dubbo in the Bogan Shire Local Government Area (LGA).

The 28 megawatt (MW) alternating current (AC) solar farm would occupy around 92 ha of rural land currently used for primary production (mixed cropping and grazing). The proposal infrastructure includes solar arrays, trackers, modules, inverters, a substation / switchyard underground cabling, security fencing and a cable run to connect the solar farm to the Essential Energy 810/4 66 kV feeder.

Draft site constraints relating to biodiversity, landowners, existing infrastructure and hydrology are shown in Figure 1-1 and Figure 1-2.

1.2. THIS REPORT

This Scoping Report documents the first stage in the Environmental Impact Assessment (EIA) process. The Scoping Report identifies the main issues, considers the values of the site, the nature and extent of potential impacts, planning and regulatory requirements and the results of preliminary consultation. The Scoping Report helps to focus the detailed assessment phase on the matters of relevance to the proposal.

This Scoping Report:

- Describes the proposed development and the development site.
- Identifies statutory approval requirements.
- Identifies key environmental and amenity matters that are relevant to the proposal.

The Scoping Report has been prepared to support a request to the Department of Planning, Industry and Environment (DPIE) for the Secretary's Environmental Assessment Requirements (SEARs). The SEARs would guide the preparation of an Environmental Impact Statement (EIS) for the proposed development, in accordance with Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

The following terms are used in this document:

The proposal: The entire solar farm, including auxiliary construction infrastructure, fencing, access etc.

Subject land: Any and all lots to be directly impacted, in whole or part, by the proposed development.

Development site: The area of land that is subject to the proposed development. The development site is the area surveyed for this assessment.

Development footprint: The area of land that would be directly impacted by the proposal, including solar array design, perimeter fence, access roads, transmission line footprint and stockpile areas.

1.3. BAYWA R.E.

BayWa r.e. was founded in 2009 and is a subsidiary company of the BayWa Group, which was founded in 1923 and is based in Munich, Germany and operated with an annual turnover of 16 billion Euros.

The BayWa Group consists of companies specialising in trading, logistics and services in the following markets: agriculture, energy and construction materials.

The BayWa r.e Wind and Solar Project teams have been operating in Australia since early 2017. The Solar Projects team entered the Australian market through the acquisition and subsequent development of the

Hughenden Solar Farm in Northern Queensland as well as the Karadoc and Yatpool Solar Farms in Victoria. The Wind Projects team was established through the acquisition of a local developer, Future Energy, and its project pipeline.

BayWa r.e is experienced in delivering Australian wind and solar projects and offer services such as asset and operations management across the APAC region, as well as turnkey construction, internal financing and investment opportunities and Power Purchase Agreements (PPAs).

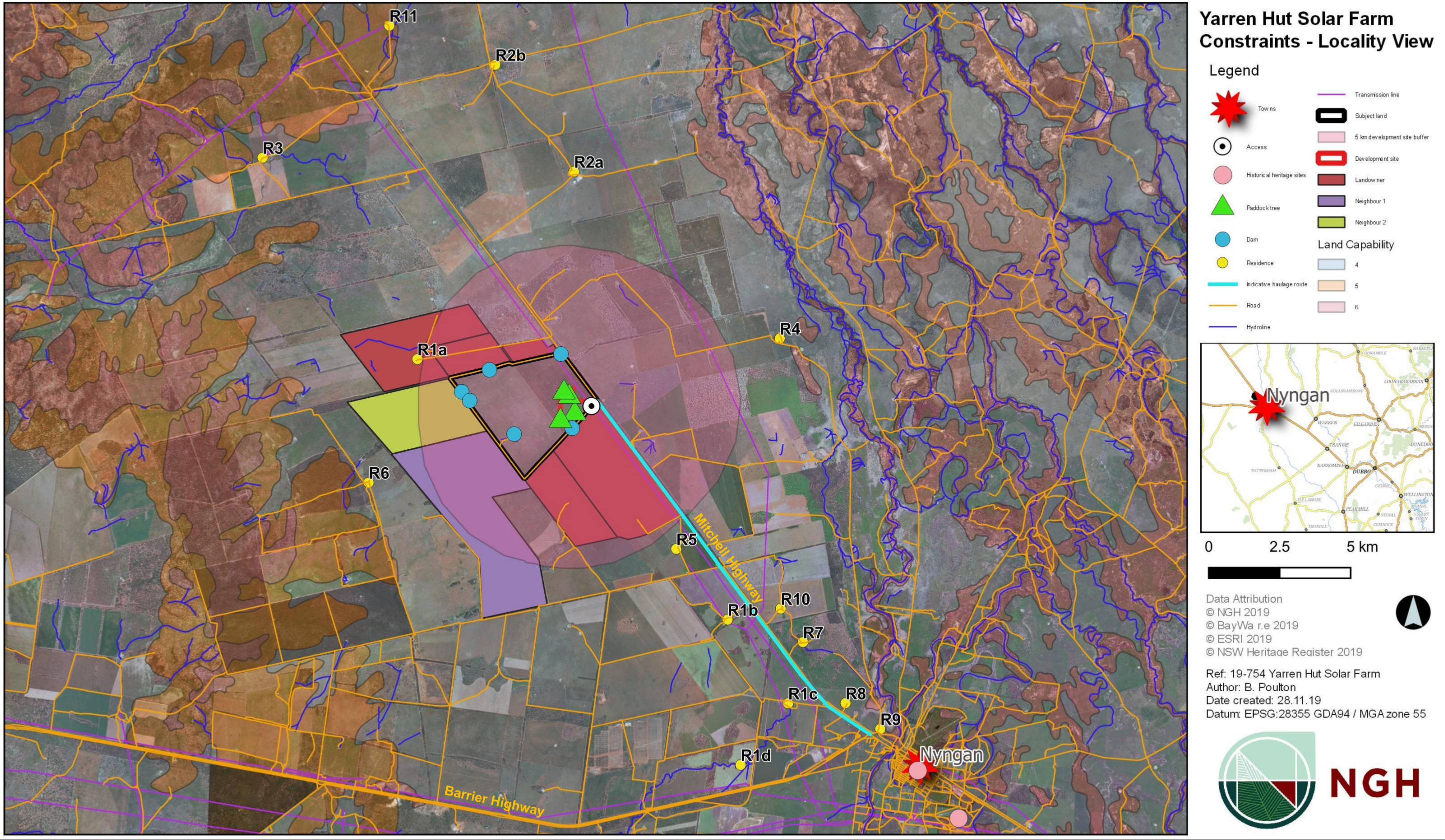


Figure 1-1 Preliminary constraints (locality view)

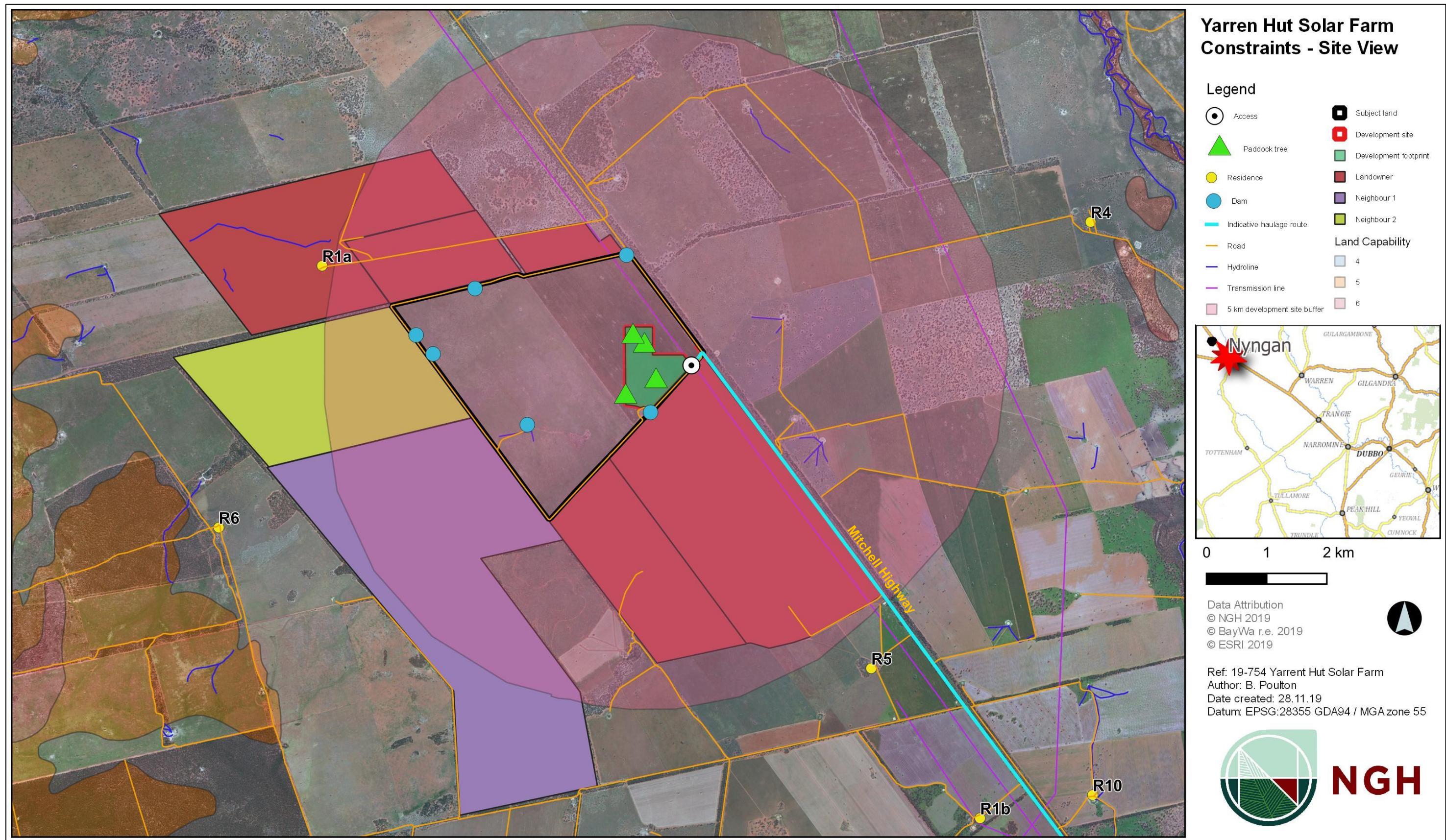


Figure 1-2 Preliminary constraints (subject land view)

2. DEVELOPMENT SITE DESCRIPTION

2.1. LOCATION

The development site is located within the Bogan Shire Local Government Area (LGA). It is accessed from a private access track directly from Mitchell Highway approximately 17 km northwest of the Nyngan townsite. Mitchell Highway is an arterial road managed and maintained by NSW Roads and Maritime Services (RMS).

As a state highway, Mitchell Highway connects central and southwestern Queensland with the northern and central regions of NSW. The southern section of Mitchell Highway runs from Sydney to Adelaide via Dubbo and Broken Hill. As part of the shortest route between Darwin and Sydney, Mitchell Highway is an important national freight road link. Pertinent to the development site, Mitchell Highway passes through the regional towns of Nyngan, Nevertire, Narromine and Dubbo.

The Bogan Shire occupies an area of approximately 14,610 km² and has a population of 3012 (Bogan Shire 2018). Nyngan and the surrounding region supports primary agriculture including sheep and cattle grazing and large-scale (non-irrigation) cropping. Public accommodation options in Nyngan includes two caravan parks, three motels, one hotel and free municipal camping areas. Two taverns, three licenced clubs and a selection of restaurants provide dining and recreation services for visitors and local residents.

Aerial imagery identified no residential receivers situated within 3 km of the proposal. The closest dwelling is approximately 5 km north west of the development site. The Essential Energy Nyngan to Bourke transmission line traverses diagonally through the subject land.

The site is not located in the immediate vicinity of any water courses, nor is it located within any floodplains. The closest river is the Bogan River that runs through the town of Nyngan, 17 km to the south east. The closest point of the Bogan River to the project site is approximately 10 km east of the site, the floodplain of which is contained within the eastern side of the Mitchell Highway.

Interested and affected parties identified as part of preliminary community & stakeholder engagement planning are listed in Table 2-1 and shown on Figure 1-1.

Table 2-1 Location of sensitive receivers

Receiver	Distance from subject land (m)	Receiver	Distance from subject land (m)
R1a	1,300	R6	5,600
R1b	8,600	R7	4,600
R1c	12,300	R8	10,900
R1d	12,500	R9	13,600
R2	6,200	R10	15,300
R3	10,300	R11	9,600
R4	10,200	R12	12,600
R5	6,700		

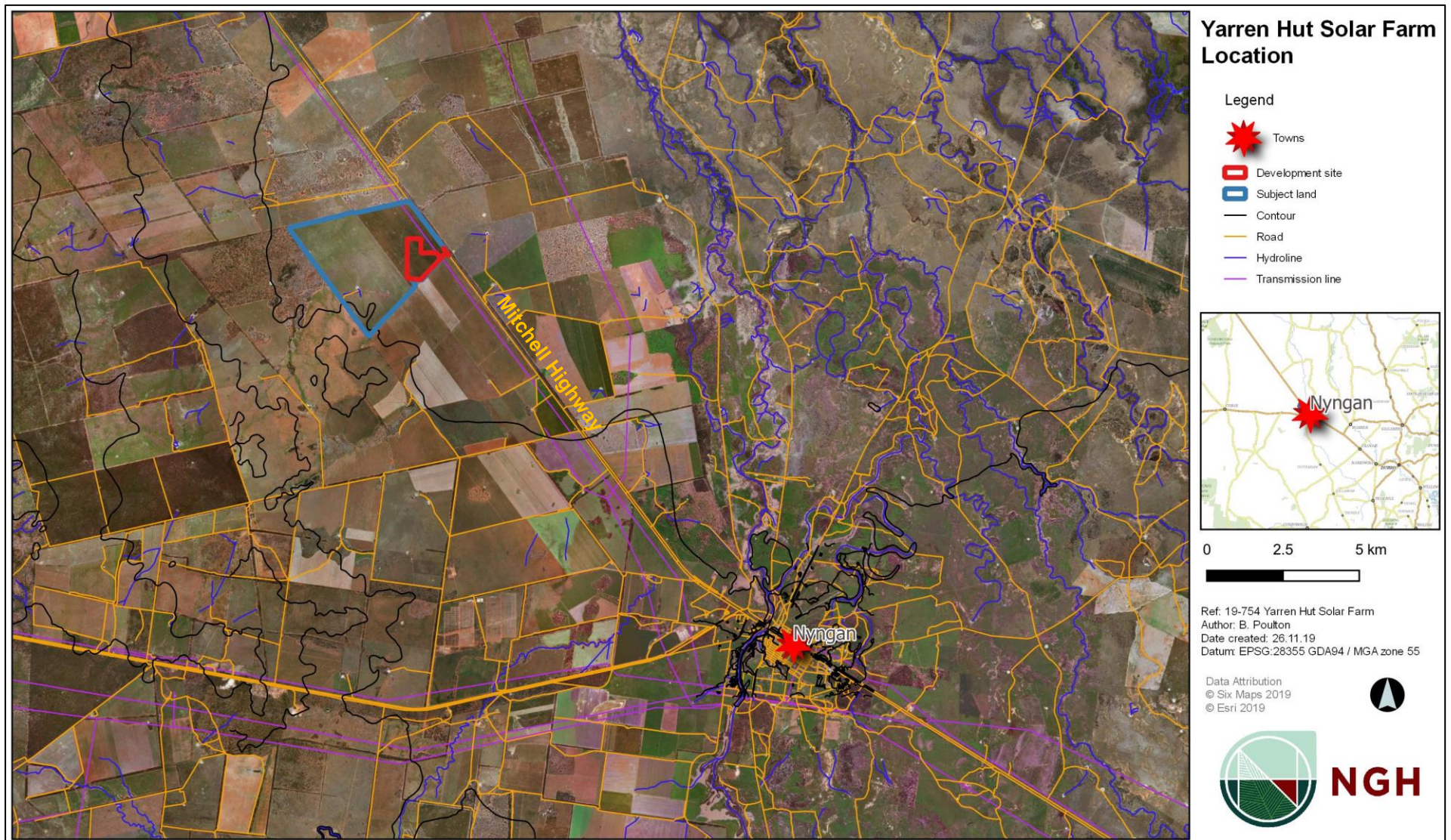


Figure 2-1 Location of the development site

2.2. SITE DESCRIPTION

The subject land is legally identified as the following lot (Figure 2-2):

- Lot 21 DP 704061

The proposed development would occupy approximately 92 ha of the 1205 ha lot. The area is cleared and has previously been cropped. The subject land contains six farm dams, a number of farm trees and patches of remnant vegetation. No buildings are present on the subject land.

A subdivision of Lot 21 is required to separate the 92 ha leased for the solar farm from the remainder of the lot that would be retained by the landholder for agricultural purposes. An additional small lot would be required for the construction of the onsite substation, which would become the freehold property of Essential Energy on commissioning of the proposal.



Figure 2-2 Proposed development infrastructure footprint

2.3. THE LOCALITY

The proposal is located in the Bogan Shire LGA, located in the Orana of NSW, approximately 170 km northwest of Dubbo. The Bogan Shire contains several small towns including Nyngan, Coolabah, Girilambone, Canonba, Hermidale, Pangee and Bobadah. The LGA is 14,611 km² with a population of 2692 as at the 2016 Census (ABS 2019).

2.3.1. Nyngan

Nyngan is the closest town to the proposal, approximately 17 km southeast of the subject land. According to the Bogan Shire, its population in 2018 was 3012 persons (Bogan Shire 2018).

Nyngan town lies on the Main Western railway line and contains an airport. The Barrier Highway runs from Nyngan, through Broken Hill to South Australia. Nyngan is already home to one of Australia's largest solar farms generating approximately 100 MW.

2.3.2. Population demographics

The median age of persons in Bogan LGA is 40; this is only slightly higher than the Australian average of 38 (ABS 2019). The 2016 census records state that 16.5% of the population are Aboriginal and Torres Strait Islander people (ABS 2019). A large portion, 83.3% of the community were born in Australia; 0.7% in England, 0.7% in New Zealand and 0.5% in India (ABS 2019).

2.3.3. Climate

Bogan LGA is part of the Cobar Peneplain Bioregion, Lachlan Plains subregion. The Cobar Peneplain lies within Australia's hot, persistently dry semi-arid climatic zone. Patches of sub-humid climate exist on the south eastern boundary of the bioregion and, in the south, these areas are characterised by a hot summer and the absence of a proper dry season (OEH 2016).

The BOM (2019) climate records available from the nearest climate station at Nyngan Airport (station no. 051039, approximately 17 km southeast of the proposal) indicate a mean summer maximum of 34.4°C (January) and a mean winter minimum of 3.8°C (July) (Figure 2-3). Rainfall records from the same station show a mean annual rainfall of 445.6 mm, and that rainfall is generally greatest over summer, with the average monthly maximum occurring in January (51.2 mm).

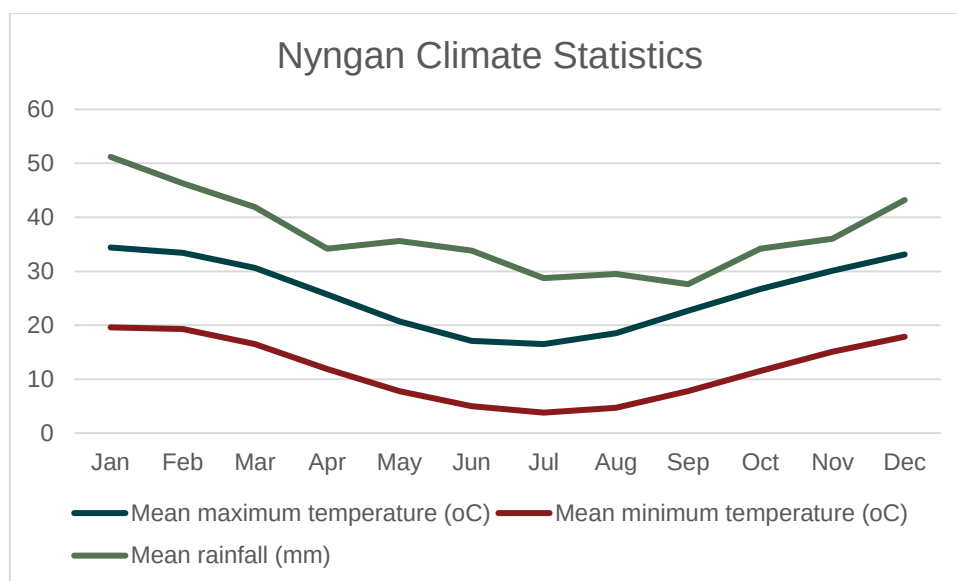


Figure 2-3 Climate statistics for weather station nearest to the proposal (Source: BoM 2019)

2.3.4. Geology and vegetation

The geology and vegetation characteristics for the Cobar Peneplains – Lachlan Plains subregion are as follows (OEH 2016):

Table 2-2 Lachlan Plains subregion geology and vegetation

Geology	Characteristic Landforms	Typical Soils	Vegetation
Devonian quartz sandstone and conglomerate, small areas of granite, and Quaternary colluvial slope mantles and alluvium.	Strike ridges of resistant rocks often following fold patterns. Low rounded hills of granite with sparse outcrop. Wide short valleys connecting to Lachlan floodplains.	Shallow stony or gritty red earths on crests and slopes, thickening downslope as rubbly mantles often with a texture contrast. Deep sandy alluvial soils in valleys with small areas of grey clay in swamps.	Dense Currawang, Dwyer's Mallee Gum and White Cypress Pine on rocky crests. Same with Red Ironbark, Mallee Broombush, Hill Tea-tree and Poplar Box on slopes. Poplar Box, White Cypress Pine, Mallee, Kurrajong, Yarran and Wilga in valleys. Poplar Box and Black Box in minor swamps.

3. THE PROPOSAL

3.1. SITE SELECTION

The proposal site has been selected for the following reasons:

- Excellent solar exposure.
- Excellent access to local and major roads.
- Excellent access to the grid transmission network.
- Substantial distance from any high density residential area.
- Low number of residential dwellings within 3 km of the development site.
- Likely low level of environmental impact – the site has been largely cleared and heavily cropped. The subject land is also located away from regularly inundated water bodies.
- Suitable topography, land size and land zoning.

The use of the site would be based on a lease agreement between the proponent and the landowner for the life of the project.

3.2. PROPOSED WORKS

3.2.1. Proposed infrastructure

The proposal involves the construction of a ground-mounted photovoltaic solar farm which would generate approximately 28 MW (AC) of renewable energy.

The design of the proposed development is somewhat adaptable and would be refined to avoid adverse impacts where feasible, and to minimise/mitigate environmental impacts if avoidance is not possible. The design would consider the results of consultation with relevant stakeholders, this Scoping Report and EIS when prepared. The EIS would detail how stakeholder feedback has influenced the final proposal design.

The proposal would consist of the following components:

- Single-axis tracker photovoltaic solar panels mounted on steel frames (approximately 84,000 PV solar panels).
- Underground electrical conduits and cabling to connect the arrays and the inverters and transformers.
- Inverters, transformers and electrical conduits.
- Onsite substation / switchyard.
- 66 kV electrical transmission line to connect the proposal to the existing Essential Energy transmission line.
- Site office, site compound, vehicle parking areas, access tracks and perimeter fencing.
- Site access from Mitchell Highway.

The site is proposed to be accessed from Mitchell Highway. The proposal would require subdivision of Lot 21 DP 704061 into three separate lots including the 92 ha leased area for the proposal and small lot for a substation / switchyard and connection to the 66 kV Nyngan to Bourke transmission line as shown in Figure 2-1. The remainder of the land comprising Lot 21 would be retained by the landholder.

The proposed infrastructure footprint is shown in Figure 2-2. This includes all land likely to be directly impacted by the construction, operation and decommissioning of the proposal, including auxiliary construction facilities (site compound, laydown, stockpiling etc.) and all considered options. It is important to note that the proposed footprint is indicative only and will be refined as part of the EIS process

(considering environmental constraints and engineering studies), with project infrastructure layout to be detailed in the EIS.

3.2.2. Construction, operation and decommissioning

The proposal is expected to operate for 50 years. The construction phase of the proposal planned to commence in Q3 2021 and would last 6 months. After the initial operating period, the solar farm would either be decommissioned, removing all above-ground infrastructure and returning the site to its existing land capability, or upgraded with new PV equipment.

3.2.3. Capital investment

The capital investment value of the proposal is estimated at \$40 million.

A quantity surveyor's report would be prepared during the EIS process which would confirm the capital investment value.

3.2.4. Subdivision

The subject land will be leased from one private landowner. When land is leased from a landowner and the lease affects part of a lot or lots in a current plan, a subdivision under s.7A *Conveyancing Act 1919* (NSW) (formerly s.327A *Local Government Act 1919* now repealed) is required when the total of the original term of the lease, together with any option for renewal, is more than five years.

A portion on the north east corner of Lot 21 DP 704061 (as shown in Figure 2-2) would be leased under an arrangement between the landholder and the proponent for a period for the life of the proposal. A small subdivision for the purpose of the internal substation / switchyard and solar infrastructure would also be required.

4. JUSTIFICATION AND ALTERNATIVES

4.1. STRATEGIC JUSTIFICATION

4.1.1. Technical feasibility

The proposal would employ proven and mature solar technology. The solar site is highly suited to efficient, high output generation.

The site is on a low rise topography and has been previously cleared, making it an ideal location for a utility scale solar project.

The 66 kV Nyngan to Bourke transmission line already exists and traverses the development site.

It is noteworthy that the electricity grid in New South Wales can present challenges in terms of having the capacity to connect utility scale renewable energy projects. The proposal benefits from having good connection options adjacent to the site with sufficient capacity in the transmission network to allow power generated at the Nyngan site to be exported to wider NSW.

4.1.2. Climate change

Electricity generation is the largest individual contributor of greenhouse gas emissions in Australia (Department of Environment 2016). The proposal would contribute to the *New South Wales Renewable Energy Action Plan* (NSW Government 2013), which supports the national target of 20 percent renewable energy by 2020. The proposal would also further the three goals of the Action Plan:

1. Attract renewable energy investment and projects.
2. Build community support for renewable energy.
3. Attract and grow expertise in renewable energy.

The NSW 2021: A Plan to Make NSW Number One (NSW Government 2011) has the following goal:

- *Contribute to the national renewable energy target ... by promoting energy security through a more diverse energy mix, reducing coal dependence, increasing energy efficiency and moving to lower emission energy sources.*

The proposal would also contribute to the Commonwealth Government's objective to achieve an additional 33 GW from renewable sources by 2020 under the Renewable Energy Target (RET).

The COP21, also known as the 2015 Paris Climate Conference, achieved a legally binding and universal agreement on climate with the aim of keeping global warming below 2 degrees Celsius, chiefly by reducing greenhouse gas emissions. The proposal would form part of the Australian effort to help meet this target.

4.1.3. Electricity supply

The Australian Energy Market Operator (AEMO 2016) forecasts that grid-supplied electricity consumption will remain flat for the next 20 years, despite the projected 30% growth in population. Although not required to meet projected electricity demand, the proposal would benefit the network by shifting electricity production closer to local consumption.

The electricity network was designed to deal with a small number of very large power generating stations. The localisation of power generation helps the grid to cope with the supply from diversified renewable energy projects.

4.1.4. Socio-economic benefits

Employment

The proposal would generate around 40 full time equivalent jobs during construction plus indirect supply chain jobs. In addition, it would employ approximately two or three full time equivalent staff during the operation and maintenance phase (expected to be 50 years).

The employment benefits for construction extend through the local supply chains to fuel supply, vehicle servicing, uniform suppliers, hotels/motels, bed and breakfasts, cafés, pubs, catering and cleaning companies, tradespersons, tool and equipment suppliers and many other businesses.

Further extension of employment benefit extends through the operation of the proposal, such as panel cleaning and maintenance, electrical maintenance, fence supplies and maintenance, road grading, adjustment and grazing of sheep.

In 2015/16, 11,150 Australians were directly employed in the renewable energy sector with an estimated additional 3,725 jobs created in the 2017/18 financial year (CEC 2016).

Electricity prices

According to Deloitte, Australian households will pay \$510 million more for power in 2020 without renewable growth through the RET and up to \$1.4 billion more per year beyond 2020. Renewables increase competition in the wholesale energy market – and, as in any market, more competition means lower prices.

Economic diversification

The proposal would diversify the use of land in the area. The predominant land use in the area is mixed cropping and grazing agriculture. The proposal would add to that and provide the local landholder and businesses in the broader area with an additional source of income and economic activity. The income created in the locality from the proposal would be consistent and stable and of greater security, being removed from the normal cycle and risks of agricultural activity (like flood and drought).

4.1.5. Land use

It is important to note that solar farms do not preclude the use of land for agriculture. Some agricultural activity is still possible while a solar farm is operating (e.g. grazing). Additionally, the degree of permanent land disturbance in the construction and operation of solar farms would be small (limited to the substation / switchyard), and it is likely that agricultural activities that were occurring before the solar farm was constructed would resume, once the solar farm is decommissioned and removed.

4.1.6. Site suitability

Key considerations for site selection are detailed within the NSW Large-scale Solar Energy Guidelines (DPE 2018). The preferable site conditions and constraints with justification is detailed in Table 4.1.

Table 4-1 Site suitability as defined by the *NSW Large-scale Solar Energy Guidelines* (2018)

Preferable site conditions	Site justification
Visibility and topography – sites with high visibility, such as those on prominent or high ground positions, or sites which are located	The proposal does not have high visibility as no residential dwellings are located within 5 km of the development site. The site does not have prominent or

Preferable site conditions	Site justification
in a valley with elevated nearby residences with views toward the site. This is particularly important in the context of significant scenic, historic or cultural landscapes.	high ground positions and is not located within a valley providing elevated views looking towards the site.
Biodiversity – areas of native vegetation or habitat of threatened species or ecological communities within and adjacent to the site, including native forests, rainforests, woodlands, wetlands, heathlands, shrublands, grasslands and geological features.	Based on preliminary biodiversity, heritage as well as other investigations carried out for the EIS, the indicative footprint would minimise environmental impacts overall. Very little native vegetation is present within the study area and mainly comprises roadside vegetation along Mitchell Highway. The final design would avoid the majority of native vegetation, habitat of threatened species or ecological communities. Panel infrastructure would be installed over previously cropped exotic understorey. The site is also unobtrusive, flat, and has low lying topography.
Residences – residential zones or urbanised areas.	The proposal is not within a residential zone or urbanised area. Consideration has been given to proximity to dwellings.
Agriculture – important agricultural lands, including Biophysical Strategic Agricultural Land (BSAL), irrigated cropping land, and land and soil capability classes 1, 2 and 3. Consideration should also be given to any significant fragmentation or displacement of existing agricultural industries and any cumulative impacts of multiple developments.	The proposal is not located on Strategic Agricultural Land, including industry clusters and biophysical strategic agricultural land. The proposal is located on Soil Capability Class 4 land. The site has suitable soil type to sustain the level and type of infrastructure proposed and not considered Biophysical Strategic Agricultural Land (BSAL) as detailed further in section 5.2.5 on land capability. The existing 100 MW Nyngan Solar Farm is located approximately 9 km south of the proposal
Natural hazards – areas subject to natural hazards such as flooding and land instability.	The scale and size of the proposal was influenced by the land area, geology, hydrology, adequate site access and road connections. The site is not located in the immediate vicinity of any watercourses, nor is it located within any floodplains.
Resources – prospective resource developments, including areas covered by exploration licences, and mining and petroleum production leases. Solar development applicants should seek advice from the Department of Planning, Division of Resources and Geoscience about the coverage of resources-related licences.	Preliminary search of the Minview database (DPI 2018) indicates that there are two current exploration licences (EL8631 and EL8730) over the subject land. A letter from GSNSW received on 27 November, has confirmed the existence of these two exploration licences.
Crown Lands – if any part of the project or	The development site comprises privately owned

Preferable site conditions	Site justification
associated transmission or distribution infrastructure will cross Crown Lands, it may be subject to legislative requirements that restrict access to the land.	farmland, which would be leased for the life of the proposal. Planning portal mapping shows Crown Roads in close proximity to the western and northern corners of the subject land but these would not be intersected or utilised by the proposal. No travelling stock reserves are located within 5 km of the development site.

4.2. ALTERNATIVES TO THE PROPOSAL

4.2.1. Alternative sites

The proponent has reviewed the solar generation potential of many areas in NSW using a combination of computer modelling and analysis, on the ground surveying and observation, and experience of the proponent. The site was selected because it provides the optimal combination of:

- Low environmental constraints (predominantly cleared cropping and grazing land).
- Low-rise terrain for cost-effective construction.
- High quality solar resource.
- No residential dwellings within 5 km of the development site.
- Suitable planning context.
- Acceptable flood risk.
- Artillery road access.
- Access to the distribution network.
- Sufficient levels of available capacity on the grid distribution system.

The site is of a scale that allows for flexibility in design, allowing the proponent to avoid ecological and other constraints that may be identified during the EIS process. The factors that determine the final design area would be detailed in the EIS.

4.2.2. Alternative technologies

Photovoltaic solar technology was chosen because it is cost effective, low profile, durable and flexible regarding layout and siting. It is a proven and mature technology that is readily available for broad scale deployment at the development site.

4.2.3. The ‘do nothing’ alternative

Not proceeding with the proposal would forego the benefits, resulting in:

- The loss of a source of renewable energy that would assist the Australian and NSW Governments to reach their targets.
- The loss of cleaner energy and reduced greenhouse gas emissions.
- The loss of additional electricity generation and supply into the grid.
- Loss of social and economic benefit through the provision of direct and indirect employment.

The ‘do nothing’ option may avoid potential adverse impacts on the community and natural environment; however, the likelihood of significant negative impacts is extremely low. It is considered that the benefit of

the proposed solar farm outweighs any adverse impact, whilst contributing to ecologically sustainable development.

5. PLANNING CONTEXT

5.1. NSW LEGISLATION

5.1.1. *Environmental Planning and Assessment Act 1979*

The EP&A Act and associated regulations and instruments set the framework for development assessment in NSW. The proposed development would be assessed under the provisions of Part 4 of the EP&A Act.

Section 4.36 of the EP&A Act provides that a State Environmental Planning Policy (SEPP), amongst other mechanisms, may declare particular development to be State Significant Development (SSD). The relevant provisions of the SEPP (State and Regional Development) 2011 are discussed below.

State Environmental Planning Policy (State and Regional Development) 2011

The SEPP (State and Regional Development) 2011 provides a framework for declaring certain types of development to be of State or Regional significance. It aims to facilitate the effective delivery of significant development in NSW by improving regulatory certainty and efficiency through a consistent planning process.

According to Clause 20 of Schedule 1, the SEPP makes a declaration of SSD in relation to electricity generating works as outlined below:

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

- a) capital investment value of more than \$30 million.*
- b) capital investment value of more than \$10 million and is located in an environmentally sensitive area of State significance.*

The proposed development has an estimated capital investment cost greater than \$30 million. The proposal is therefore classified as SSD under Part 4 of the EP&A Act.

Pursuant to Clause 4.5 of the EP&A Act, the consent authority for SSD is the Minister for Planning, Industry and Environment, or their delegate.

An EIS is prepared in accordance with environmental assessment requirements issued by the SEARs. In determining the SEARs, the Secretary must consult with relevant public authorities and would have regard to the need to assess key issues raised by those public authorities. A scoping study (this Scoping Report) is to be submitted with the request for the SEARs.

State Environmental Planning Policy No 55 – Remediation of Land

The State Environmental Planning Policy No 55 – Remediation of Land (SEPP No 55 – Remediation of Land) provides a framework for the consideration of land contamination and remediation as part of any planning purpose.

Under clause 7 of the SEPP No 55 – Remediation of Land, the consent authority must not consent to a development unless it has considered whether the land is contaminated, whether land would be suitable where it is contaminated, whether land can be made suitable by remediation and that remediation would take place prior to the proposed use.

The subject land is not on the register of Contaminated Sites maintained by the NSW EPA. Further, the land is not on Bogan Shire's register of contaminated or potentially contaminated land. Historical aerial imagery indicates that the land has been utilised for agricultural activities, specifically cereal cropping, which

is a potentially contaminating land use according to the *Managing Land Contamination Planning Guidelines* (NSW EPA, 1998).

Consideration of potential contamination risks to satisfy the requirements of clause 7 of the SEPP, would be provided in the EIS.

State Environmental Planning Policy (Infrastructure) 2007

Clause 34(7) of State Environmental Planning Policy (Infrastructure) 2007 (ISEPP) provides that development for the purpose of a 'solar energy system' may be carried out by any person with consent on any land (except land in a prescribed residential zone).

The proposed development is located on land within the RU1 Primary Production zone and is permissible with consent under ISEPP.

State Environmental Planning Policy (Primary Production and Rural Development) 2019

The aims of the State Environmental Planning Policy (Primary Production and Rural Development) 2019 (Primary Production and Rural Development SEPP) are:

- a. *to facilitate the orderly economic use and development of lands for primary production.*
- b. *to reduce land use conflict and sterilisation of rural land by balancing primary production, residential development and the protection of native vegetation, biodiversity and water resources.*
- c. *to identify State significant agricultural land for the purpose of ensuring the ongoing viability of agriculture on that land, having regard to social, economic and environmental considerations.*
- d. *to simplify the regulatory process for smaller-scale low risk artificial waterbodies, and routine maintenance of artificial water supply or drainage, in irrigation areas and districts, and for routine and emergency work in irrigation areas and districts.*
- e. *to encourage sustainable agriculture, including sustainable aquaculture.*
- f. *to require consideration of the effects of all proposed development in the State on oyster aquaculture.*
- g. *to identify aquaculture that is to be treated as designated development using a well-defined and concise development assessment regime based on environment risks associated with site and operational factors.*

It is considered that the proposal is consistent with the aims and planning principles of the Primary Production and Rural Development SEPP. The Primary Production and Rural Development SEPP applies to the State except where stated within. At the time this Scoping Report was written, Schedule 1 State significant agricultural land was blank.

5.1.2. Biodiversity Conservation Act 2016

The *Biodiversity Conservation Act 2016* (BC Act) provides the framework for a range of conservation actions including monitoring biodiversity, the scientific assessment of development, establishment of market-based conservation mechanisms and guiding conservation investment. The overall aim of the BC Act is to maintain a healthy, productive and resilient environment in consideration of the principles of ecologically sustainable development.

The proposed development is considered SSD and would require biodiversity assessment under Section 7.9 of the BC Act. According to the provisions of the BC Act, a Biodiversity Development Assessment Report (BDAR) is required to support the application for development consent.

A preliminary assessment of potential impacts is outlined in section 5.2 of this Scoping Report.

5.1.3. Conveyancing Act 1919

The purpose of the *Conveyancing Act 1919* is to amend and consolidate the law of property and to simplify and improve the practice of conveyancing, and for such purposes to amend certain Acts relating thereto.

Subdivision is required to lease a portion of the subject land and for the purpose of a substation / switchyard, which would become the freehold property of Essential Energy on commissioning of the proposal.

5.1.4. Crown Land Management Act 2016

The objects of the *Crown Land Management Act 2016* (CLM Act) are to ensure that Crown land is managed for the benefit of the people of New South Wales. Under Division 2.5 of the CLM Act, the Minister for Lands must be satisfied that the land has been assessed prior to any allocation action, i.e. reservation, dedication, sale, lease, licence or permit. The purpose of a land assessment is to ensure decisions made in relation to Crown land are in accordance with the principles of Crown land management by (amongst other matters) including an assessment of the capabilities of Crown land and the identification of suitable land uses.

No Crown paper roads or residual road corridors would be impacted by the proposal.

5.1.5. Heritage Act 1977

The *Heritage Act 1977* (Heritage Act) aims to conserve heritage values. The Heritage Act defines 'environmental heritage' as those places, buildings, works, relics, moveable objects and precincts listed in the Local or State Heritage Significance Register. Heritage items are listed in the environmental heritage schedule of the local Council's LEP or listed on the State Heritage Register, a register of places and items of particular importance to the people of NSW.

Under Section 89J of the EP&A Act, an approval under Part 4 or a permit under Section 139 of the Heritage Act would not be required for an SSD. The proposal is unlikely to directly or indirectly affect any items of heritage significance (refer to section 5).

5.1.6. National Parks and Wildlife Act 1974

Under the *National Parks and Wildlife Act 1974* (NPW Act), the Director-General of the National Parks and Wildlife Service is responsible for the care, control and management of all national parks, historic sites, nature reserves, Aboriginal areas and state game reserves. The Director-General is also responsible under this legislation for the protection and care of native fauna and flora and Aboriginal places and objects throughout NSW.

The impact of the proposed development on Aboriginal places and objects would be investigated as part of the preparation of the EIS. Under Section 89J of the EP&A Act, an Aboriginal Heritage Impact Permit under Section 90 of the NPW Act would not be required for an SSD.

The potential impacts to Aboriginal heritage and native fauna and flora are discussed in section 5 of this Scoping Report.

5.1.7. Roads Act 1993

The *Roads Act 1993* (Roads Act) provides for the classification of roads and for the declaration of RMS and other public authorities as roads authorities for both classified and unclassified roads. It also regulates the carrying out of various activities in, on and over public roads.

The need for upgrade works to any affected road would be considered as part of the traffic assessment conducted for the proposed development. The roads authority would be consulted during the preparation of the EIS and, if required, approval sought under section 138 of the Roads Act.

5.1.8. Water Management Act 2000

The *Water Management Act 2000* provides for the sustainable and integrated management of the State's water resources. The proposal would require water during both construction and operation. Quantities and sources of water required would be identified during the EIS stage.

5.2. COMMONWEALTH LEGISLATION

5.2.1. Environmental Protection and Biodiversity Conservation Act 1999

The *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act) provides an assessment and approval process for actions likely to cause a significant impact on Matters of National Environmental Significance (MNES). These include:

- World Heritage properties.
- National Heritage places.
- Wetlands of international importance (listed under the Ramsar Convention).
- Listed threatened species and ecological communities.
- Migratory species protected under international agreements.
- Nuclear actions (including uranium mines).
- Commonwealth marine areas.
- The Great Barrier Reef Marine Park.
- A water source, in relation to coal seam gas development and large coal mining development.

Approval by the Australian Minister for the Environment is required if an action is likely to have a significant impact on a MNES. Assessments of significance based on criteria listed in the 'Significant Impact Guidelines 1.1' (Commonwealth of Australia, 2013) are used to determine whether the proposed action is likely to have a significant impact (i.e. is likely to be considered a 'controlled action').

A search of the Commonwealth Protected Matters Search Tool (10 km buffer, undertaken on 25 November 2019) identified four Threatened Ecological Communities (TECs), zero threatened flora species and nine threatened fauna species that have the potential to occur at the site. The search also identified three wetlands of international importance (Ramsar), located greater than 600 km upstream. A summary of the EPBC Act search report is provided below.

Surveys to determine the presence and likelihood of impact to these entities would be undertaken during the preparation of the EIS.

Table 5-1 Summary of EPBC Act Protected Matters Report search results

Protected Matter	Entities within the search area
World Heritage Properties	0
National Heritage	0
Wetlands of International Significance (Ramsar)	3
Threatened Ecological Communities	4

Protected Matter	Entities within the search area
Threatened Species	9
Migratory Species	7
Listed Marine Species	13
Commonwealth land	0
Commonwealth Heritage places	0
Critical habitats	0
Commonwealth reserves (terrestrial)	0
State reserves	0
Regional Forest Agreements	0
Invasive species	20
Nationally Important Wetlands	0

5.2.2. *Native Title Act 1993*

The *Native Title Act 1993* provides a legislative framework for the recognition and protection of common law native title rights. Native title is the recognition that Indigenous people had a system of law and ownership of their lands before European settlement. Where the traditional connection to land and waters has been maintained and where government acts have not removed it, the law recognises this as native title.

People who hold native title have a right to continue to practise their law and customs over traditional lands and waters while respecting other Australian laws. This could include visiting to protect important places, making decisions about the future use of the land or waters, hunting and gathering bush medicines. Further, when a native title claimant application is registered by the National Native Title Tribunal, the people seeking native title recognition gain a right to consult with anyone who wants to undertake a project on the area claimed.

Where native title does exist in relation to the proposal site, the proponent would comply with the provisions of the *Native Title Act 1993*.

A search of the Register of Native Title Claims completed on 25 November 2019 did not indicate any native title claims, land use agreements, applications or determinations within the development site.

5.3. LOCAL PLANNING INSTRUMENT

5.3.1. *Bogan Local Environmental Plan 2011*

The proposal is in the Bogan Local Government Area (LGA) and is subject to the Bogan Local Environmental Plan (LEP) 2011.

The overall aims of the Bogan LEP are:

1. *This Plan aims to make local environmental planning provisions for land in Bogan in accordance with the relevant standard environmental planning instrument under section 33A of the Act.*
2. *The particular aims of this Plan are as follows—*
 - a. *to protect, enhance and conserve agricultural land through the proper management, development and conservation of natural and man-made resources.*
 - b. *to encourage a range of development, including housing, employment, recreation and community facilities, to meet the needs of existing and future residents of Bogan.*
 - c. *to promote the efficient and equitable provision of public services, infrastructure and amenities.*

The subject land is zoned RU1 Primary Production under the LEP, as shown in Figure 5-1 Bogan LEP zoning, location of the subject land shown in red (source: Bogan LEP 201, with a prescribed minimum lot size of 600 hectares).

The proposed development is defined as 'electricity generating works' according to the land use definitions in the LEP:

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

According to the RU1 land use table, electricity generating works are prohibited in the zone as they are not listed either permitted with or without consent. However, as discussed above, a solar generating system would be permitted on the subject land under the provisions of ISEPP with consent. As a state planning policy, the ISEPP provisions prevail over inconsistent provisions in the LEP.

Zone Objectives

According to clause 2.3(2) of the LEP, the consent authority must have regard to the objectives for development in a zone when determining a development application. The objectives of the RU1 zone are to:

- Encourage sustainable primary industry production by maintaining and enhancing the natural resource base.
- Encourage diversity in primary industry enterprises and systems appropriate for the area.
- Minimise the fragmentation and alienation of resource lands.
- Minimise conflict between land uses within this zone and land uses within adjoining zones.

The proposal would have negligible impact on primary industry production within the Bogan LGA. The degree of permanent land disturbance as a result of construction and operation of the solar farm is small and would not result in fragmentation and alienation of resource lands. Some agricultural activity is still possible whilst the solar farm is operating (e.g. grazing), and it is likely that agricultural activities that occurred before solar farm construction would resume once the solar farm is decommissioned and infrastructure removed.

Clause 2.6 Subdivision – consent requirements

According to clause 2.6 of the Bogan LEP, consent is required for the subdivision of land. The proposed development would involve the subdivision of land (Lot 21 DP 704061) to create three new lots, including the development site, a smaller allotment for the substation /switchyard and the remainder of the land to be retained by the landholder for primary agriculture. Consent for the subdivision is sought as part of the proposed development.

Clause 8(2) of the State and Regional Development SEPP states that if a single development application comprises development that is only partly SSD, the remainder of the development is also declared to be SSD. In this case, the proposed subdivision is also taken to form part of the SSD.

Clause 4.1 Minimum subdivision lot size

Clause 4.1 (3) of the Bogan LEP states that “the size of any lot resulting from a subdivision of land to which this clause applies is not to be less than the minimum size shown on the Lot Size Map in relation to that land”.

With regard to the subject land, the prescribed minimum lot size is 600 ha. The proposed lot size of the portion to be leased by the proponent is 92 ha. The proposed lot size for the onsite substation / switchyard would be approximately 2 ha. A third lot to be retained by the landholder for primary agriculture would remain above 600 ha under the provisions of clause 4.1 of the Bogan LEP.

As outlined above, clause 8(2) of the State and Regional Development SEPP provides that if one aspect of a proposal is SSD, all aspects are to be considered under the SSD provisions. Further, clause 4.38(3) of the EP&A Act, states that development consent for SSD may be granted despite the development being prohibited by an environmental planning instrument. Accordingly, the consent authority may consent to the proposed subdivision, despite the subdivision being prohibited by the Bogan LEP.

Bogan Shire Council has indicated that they would not object to consent being granted by the Minister for the proposed subdivision under the minimum lot size for the development site and a substation / switchyard.

Clause 4.2 Rural subdivision

The objective of clause 4.2 of the Bogan LEP is “to provide flexibility in the application of standards for subdivision in rural zones to allow landowners a greater chance to achieve the objectives for development in the relevant zone.” The clause applies to subdivisions in several zones including the RU1 Primary Production zone.

Clause 4.2(3) states that “a lot of a size that is less than the minimum size shown on the Lot Size Map in relation to that land may be created for the purpose of primary production.” It is considered that the purpose of the proposed development site substation lots are inconsistent with a primary production purpose and could not invoke the provisions of this clause.

As outlined above, the proposed development (including the required subdivision) is SSD according to the SEPP (State and Regional Development) 2011. According to clause 4.38(3) of the EP&A Act, development consent for SSD may be granted despite part of the development being prohibited by the environmental planning instrument.

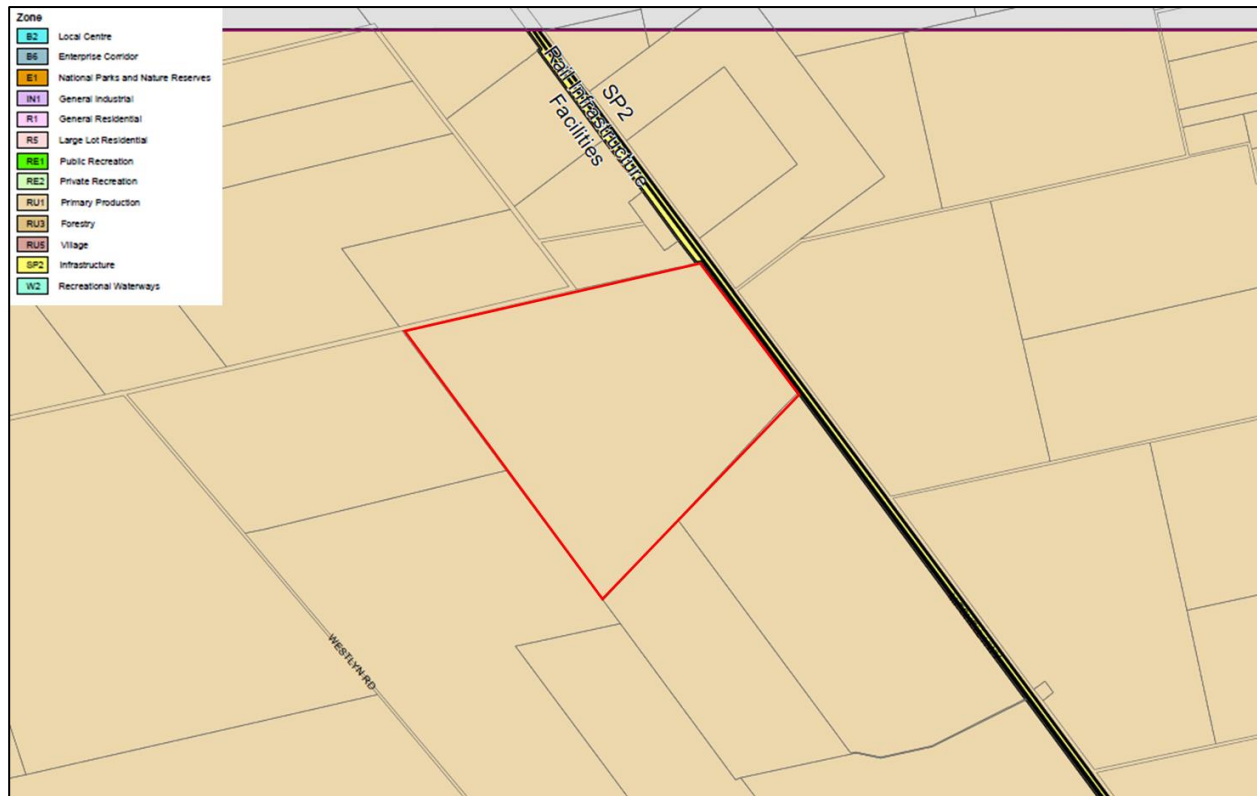


Figure 5-1 Bogan LEP zoning, location of the subject land shown in red (source: Bogan LEP 2011)

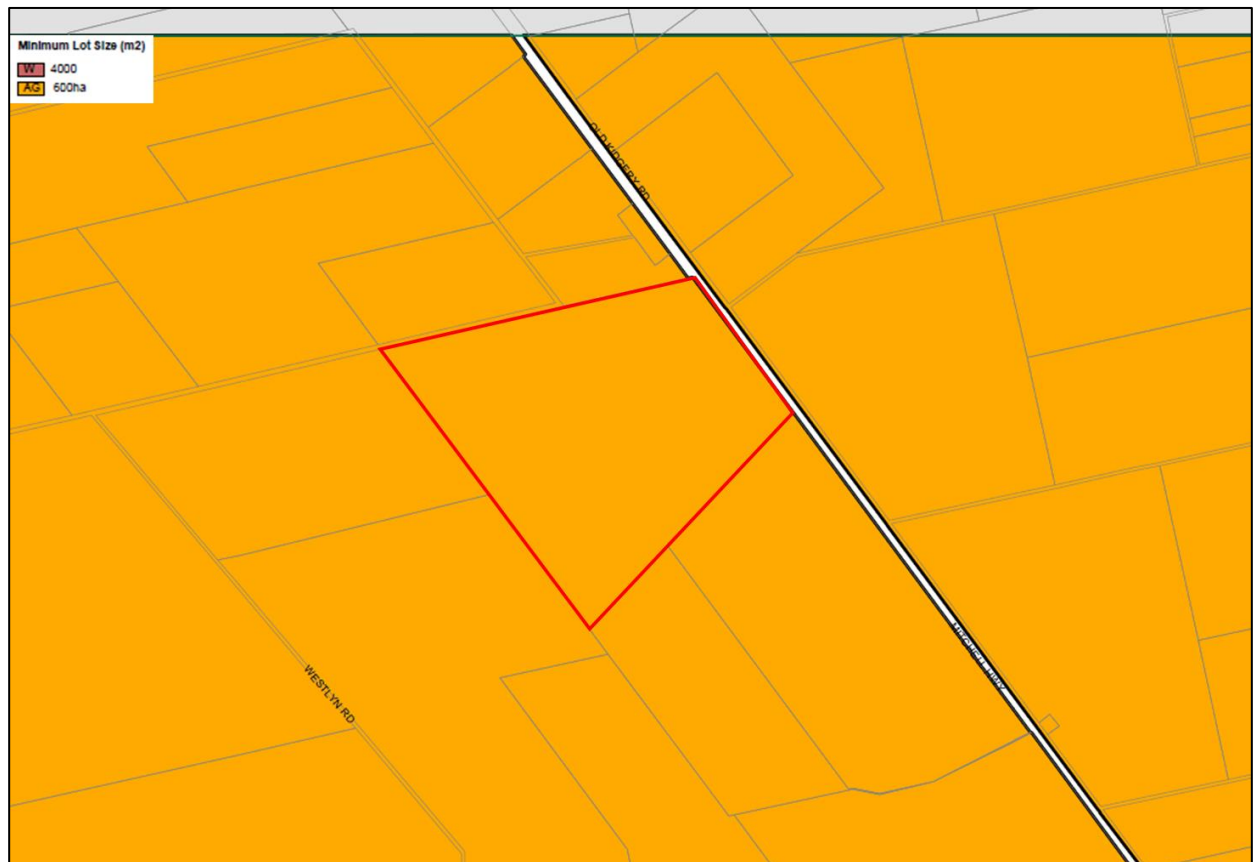


Figure 5-2 Bogan LEP minimum lot size, location of the subject land shown in red (source: Bogan LEP 2011)

6. COMMUNITY AND STAKEHOLDER ENGAGEMENT

6.1. ENGAGEMENT APPROACH

Community and stakeholder engagement with the affected community and stakeholders (interested and affected parties (I&APs)) is integral to development of the proposal. The following stakeholders have been identified for engagement in accordance with the requirements of the DPE *Draft Environmental Impact Assessment Guidelines Series – Community and Stakeholder Engagement* (June 2017):

- The proponent.
- The community – neighbours within a 3 km radius around the subject land.
- Other stakeholders – special interest groups, broader community, etc.
- Government departments and consent authorities – NSW DPE and local Councils.

Although there are numerous benefits to pro-active community engagement for such a project, the following are considered key for meaningful engagement:

- An ongoing opportunity for I&APs to gain an understanding of the proposal from the early scoping phase through to the impact assessment. This creates greater project awareness and encourages transparency, on the behalf of the proponent, throughout the process.
- An opportunity for I&APs to provide input to possible mitigation measures for identified specific-, local- or regional project impacts. This not only empowers I&APs to have input into developing mitigations for impacts that could directly affect them but also assists the proponent to develop flexible and tailored solutions as part of the project's design.

Opportunities for stakeholders to provide input into impact assessment and project design to date include:

- Upfront discussions with the DPIE and Bogan Shire to introduce them to the proposal, as well as to determine project-specific considerations that need to be accounted for.
- Letters were sent to both owners of relevant exploration licences over the subject land informing them of the project on 11 December 2019 (Appendix D).
- Advertisement for Registered Aboriginal Parties (RAPs) to participate in Aboriginal heritage assessment of the development site, published 4 December 2019.
- Face-to-face meetings with direct neighbours have been deemed unnecessary at the scoping phase due to the absence of residential dwellings within a 5 km radius of the development site. The Nyngan community (including near neighbours) has however been informed about the proposal and the community engagement process via flyer distributed by Australia Post (Appendix A.1).
- Nyngan residents were invited to attend an open public meeting about the proposal on 2 December 2019. This meeting was advertised via the flyer and the Nyngan Observer, published 21 November 2019.
- Establishment of a website for the proposal (<https://yarrenhutsolarfarm.com.au/application/>) on which key project information can be found.
- Ongoing consultation opportunities in the form of phone calls, feedback forms, e-mails, a post-assessment newsletter, etc.

The ongoing Community and Stakeholder Engagement Plan for the proposal aims to ensure that there is effective, ongoing liaison with the community. Measures to reduce adverse impacts and promote positive impacts would be identified in the EIS and appropriate management plans developed for the proposal.

Agency consultation would also be undertaken in accordance with any requirements of the SEARs.

6.2. IDENTIFIED I&APS

I&APs were identified as those community members and stakeholders potentially being impacted by the solar farm proposal or having an interest in the proposal (Table 6-1):

Table 6-1 Impacted or interested stakeholder groups identified as part of the project scoping engagement

I&AP group		Defining characteristics
Community	Adjacent neighbours	Neighbours with properties directly adjacent to the proposed subject land. These neighbours are deemed to possibly be affected by the proposal, for example, by a belief that solar infrastructure might impact the agricultural productivity on their own land. These neighbours may be either landowners or lessees. There are two landowners/lessees that have been identified on land directly adjacent to the subject land (Figure 6-1) provides the ownership details of these properties (owner or lessee). Figure 6-1 further illustrates their geographic location. Identified residential buildings in the locality are also shown Figure 6-1.
	Residents within a 3 km radius from the subject land	Considered a major development within a small town. Direct impacts may be of interest to local residents and businesses (mixed cropping/grazing farms). Based on upfront discussions with the DPIE, a 3 km radius from the proposed subject land has been used to capture the values and potential impacts to this group of I&APs. It will further assist the assessment process and development of appropriate mitigation strategies from a local landowner/lessee perspective. No residences have been identified within 5 km of the development site or along the preferred haulage route of the private track off Mitchell Highway.
Stakeholders	Special interest groups	The following relevant special interest groups were identified for this proposal: • Sustainable Nyngan Agricultural Group. • Mineral Exploration Tenement Holders. • Essential Energy. Depending on the community engagement feedback, consultation with these groups may take place during the assessment process.
	Media	Various media outlets will be used to distribute information about the project. A project-specific website has been developed for the proposal. This is the main information portal for I&APs to gain an

I&AP group	Defining characteristics	
		understanding of the proposal, as well as learn more about the impacts and mitigations around solar farms. Advertisements for planned community gatherings relevant to the proposal will be posted in the local Nyngan newspaper.
	Broader community & representative bodies	The project is likely to be of interest to the broader local and regional community. Community engagement planning will include two community meeting sessions within the Nyngan LGA during the assessment process. This will allow for queries to be raised with the proponent and project team about the project by the broader community and representative bodies. Currently, the following representative groups have been identified as possibly showing an interest in the project: • Local, State and National members of Parliament. • Nyngan Local Aboriginal Land Council. • Nyngan Visitor Information Centre.
Government departments & consent authorities	Department of Planning, Industry & Environment	Key regulatory decision-maker for this proposal.
	Bogan Shire Council	As the subject land is located in the Bogan Shire LGA, upfront engagement representatives of the Bogan Shire Council has already taken place. This engagement is important to understand local planning needs as well as to identify any specific concerns the Shire might have that need to be included in the assessment process.

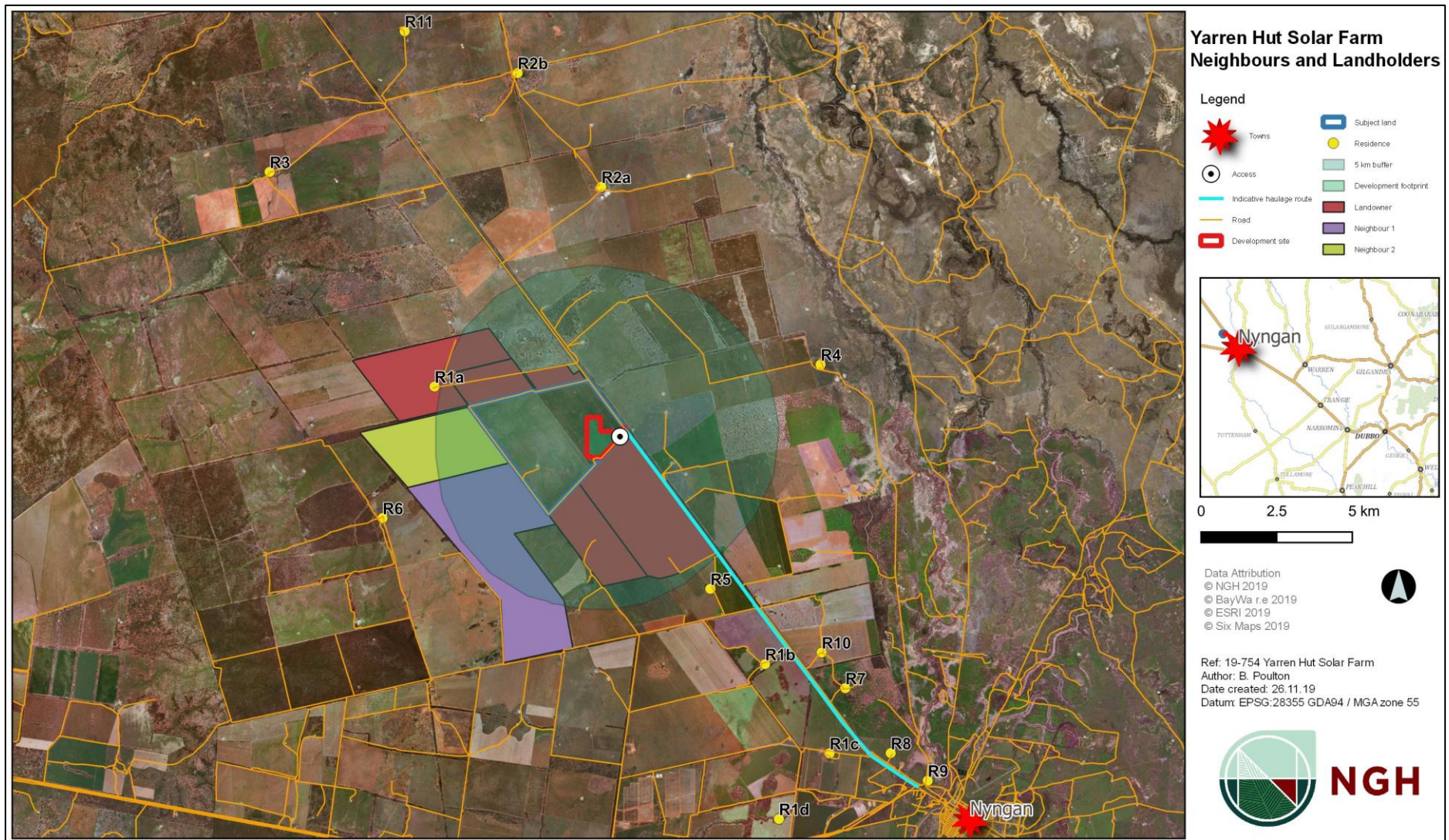


Figure 6-1 Neighbours and landholders

6.3. ENGAGEMENT TO DATE

Details of the engagement activities undertaken to-date are in Table 6-2. This table also highlights key discussion points raised during the engagement that will need to be considered as part of the EIA process.

Table 6-2 Community and stakeholder engagement to-date (as part of proposal scoping)

<i>I&AP group</i>	<i>Engagement activities</i>	<i>Date</i>	<i>Aspects to be considered during the EIA</i>
Community and other stakeholders	- The neighbours identified in the 3 km subject land radius area were informed of the proposal through a letter mailed to them on 15 November 2019 (Appendix A.2). - Many neighbours were not too concerned about the project (as much of the directly adjacent land is owned by the subject landowner). Where concerns were raised, these were documented for further clarification and/or assessment. - Neighbours within 10 km were invited to attend a community meeting on 2 December 2019. Two residents (R2 and R15) attended the meeting and were supportive of the proposal. The sign-in sheet from the meeting is also provided in Appendix A.3.	15 November 2019	Loss of the ability to expand personal farming areas due to the use of the subject area for a land use different to agricultural activities.
	The proponent has maintained ongoing consultation with Essential Energy since conception of the proposal.	2019, ongoing	Confirmed transmission line and network capacity for the proposal.
	- Letters were sent to 6 Aboriginal stakeholder groups. Two of these registered their interest including: - Bogan Aboriginal Corporation. - Corroboree Aboriginal Corporation.	6 December 2019	The identification, relocation and/or avoidance of Aboriginal heritage items and/or cultural places.
Departments & consent authorities	- The proponent met with the NSW DPIE in Sydney (Scoping Meeting), to: - Introduce the proposed project to the Department.	11 December 2019	Need for consultation with Council to verify if they are supportive of such projects, as well as if they had any objections to sub-divisions of land where required.

<i>I&AP group</i>	<i>Engagement activities</i>	<i>Date</i>	<i>Aspects to be considered during the EIA</i>
	○ Discuss the assessment pathway. ○ Discuss relevant matters to be considered in the EIA. ○ Discuss the proposed approach to I&AP engagement. ○ Discuss how the Scoping Report should be presented.		● Consultation with the identified energy provider to ensure capacity to utilise proposed solar energy generation.
	● The proponent met with Bogan Shire to introduce them to the proposed project. ● The Bogan Shire said that they had no concerns about the project at this stage but will review the project as it progresses through the development consent process. Minutes from the meeting are provided in Appendix A.4.	2 December 2019	● Sourcing of skilled local people for construction activities. ● Accommodation for construction workers. ● Addressing perceived community impacts such as loss of agricultural land and regional solar farm cumulative impacts. ● Initial consultation with the Bogan Shire includes discussion around location and scale of the proposal, transport route, land use and subdivision.

The comments identified will all be taken forward as part of the assessment process.

Once the proposal SEARs have been obtained and the assessment phase of the project is initiated, further community and stakeholder engagement would be initiated.

7. PRELIMINARY ENVIRONMENTAL ASSESSMENT

7.1. METHODOLOGY

A preliminary environmental risk assessment has been conducted to assist in the identification of key environmental matters that would require detailed assessment within the EIS. Risks were identified for both the construction and operation phase of the proposal and analysed in relation to their possible consequence and likelihood of occurrence. From this analysis, some environmental matters were deemed to be key issues on the basis that they had the potential, without suitable mitigation, to have a significant impact on the environment.

The assessment is based on a desktop review to identify potential high-level constraints and major risks to the proposal. Preliminary constraints maps are shown Figure 1-1 and Figure 1-2. This will be used to guide further detailed investigations and ultimately the site infrastructure layout. Constraints mapping will also be refined based on these investigations prior to submission of the EIS.

A summary of the key environmental issues is provided below. The intent of the discussion is to demonstrate an understanding of the issues that require further environmental assessment and likely mitigation measures for these key issues. The potential impacts and management of other (less significant) issues are discussed in section 7.3.

The following environmental risks are considered to be key aspects:

- Biodiversity.
- Aboriginal Heritage.
- Visual amenity.
- Construction noise.
- Land use and resources.
- Watercourses and hydrology.

7.2. ASSESSMENT OF KEY ENVIRONMENTAL ISSUES

7.2.1. Biodiversity

Methodology

A preliminary constraints assessment was conducted of the proposal to identify potential high-level constraints and major risks to the proposal.

The potential ecological constraints within the study area have been identified based on the following information sources:

- Commonwealth EPBC Act Protected Matter Search Tool, using a 10 km search radius.
- Areas of outstanding biodiversity values declared under the BC Act.
- Threatened species and communities' records in the Bionet Database (OEH), using a 10 km search radius.
- Threatened species and community records in the IBRA Cobar Peneplains Bioregion and Lachlan Plains subregion.
- Office of Environment and Heritage (OEH) Vegetation Information System (VIS) Mapping.
- NSW Government's SEED (Sharing and Enabling Environmental Data) Mapping.

Overview

The subject land has been selected on the basis that it supports limited native vegetation. The land has been extensively cropped and grazed over a long period of time.

Biodiversity constraints of the development site consist of a small area of remnant vegetation along Mitchell Highway and four paddock trees. It is anticipated that there is no other native vegetation across the development site, though this would be confirmed by a vegetation survey in preparation of the EIS.

Database searches

The EPBC Act Protected Matters Search undertaken on 26 November 2019 indicated four listed threatened ecological communities, which may or are likely to occur in the search area (Appendix B).

The EPBC Act search indicated zero threatened flora species and 9 threatened fauna species either known to occur or have potential to occur in the search area.

The NSW Bionet search undertaken on 26 November 2019 indicates six threatened flora species and 39 threatened fauna species. No threatened species sighting records were available within a 10 km radius of the subject land (Appendix B).

Vegetation mapping

An assessment was undertaken of existing vegetation mapping of the proposed development site (Figure 7-1). No areas of outstanding biodiversity value were identified under the BC Act within the study area.

The NSW Government's SEED mapping for the locality identified four plant community types (PCT) within the study area including two along Mitchell Highway that may be impacted by access points to the site. These are:

- PCT 14 – Western Peneplains Woodlands (along Mitchell Highway).
- PCT 23 – Semi-arid Floodplain Grasslands (along Mitchell Highway).
- PCT 21 – North-west Floodplain Woodlands.
- PCT 15 – Floodplain Transition Woodlands.

No native vegetation types were identified within the development site as confirmed by preliminary desktop investigations.

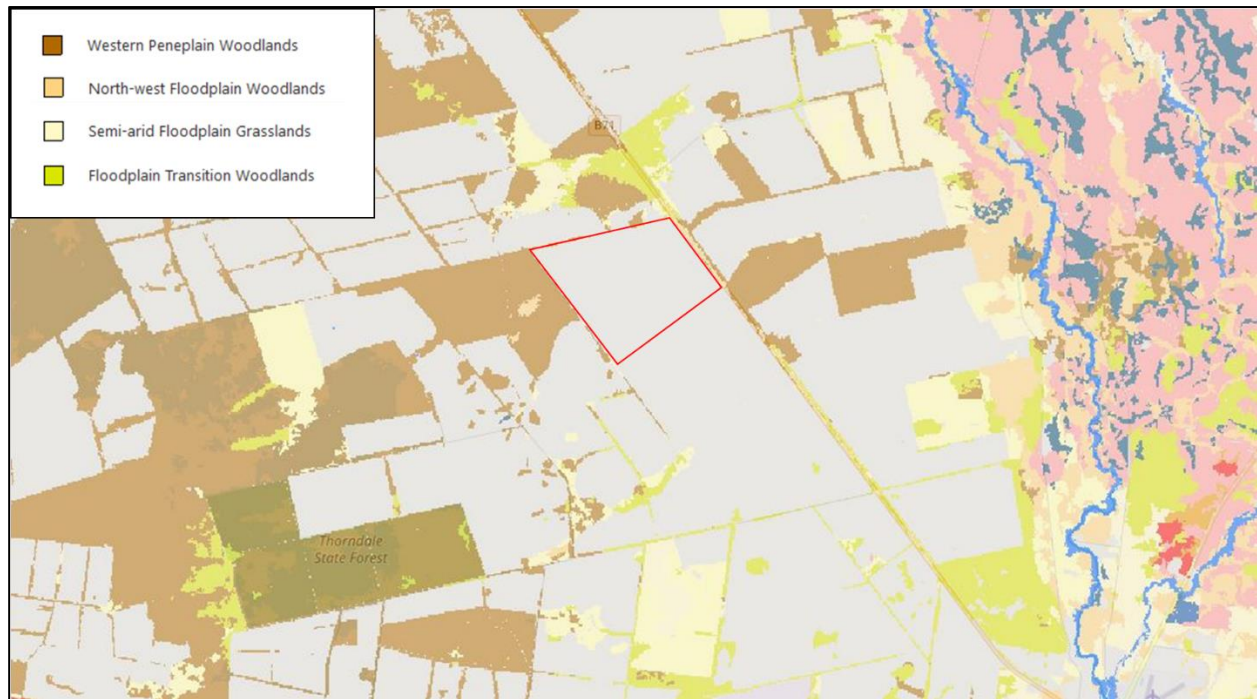


Figure 7-1 Vegetation mapping surrounding the proposal, subject land in red (source: SEED Portal 2019)

Site Community Types and Endangered Ecological Communities

Based on existing vegetation mapping, vegetation within the proposed development site was assigned to PCTs in accordance with the Vegetation Information System Classification Database. Assumed PCTs would be confirmed based on the presence of diagnostic species identified in the site survey undertaken in preparation of the EIS. The results are preliminary in nature and would be refined following detailed vegetation survey of the site, and the undertaking of floristic plots in accordance with the Biodiversity Assessment Methodology (OEH, 2017).

Two PCTs were identified within the study area:

- PCT 103 – Poplar Box – Gum Coolabah – White Cypress Pine shrubby woodland mainly in the Cobar Peneplain Bioregion.
- PCT 240 – River Coobah tall shrubland wetland of the floodplains in the Riverina Region and Murray Darling Depression Bioregion.

Neither of the PCTs listed above form part of a Threatened Ecological Community (TEC) under the BC Act or EPBC Act, however, PCT 26 – *Weeping Myall open woodland of the Riverina Bioregion and NSW South Western Slopes Bioregion* appeared in the Bionet background search for the study area. This community is listed as Endangered under the BC Act. Further investigation is required to determine whether the BC Act (PCT 26) vegetation community occurs within the development site and if so, whether this community forms part of the Critically Endangered community – *Myall Woodland in the Darling Riverine Plains, Brigalow Belt South, Cobar Peneplain, Murray-Darling Depression, Riverina and NSW South Western Slopes Bioregions* under the EPBC Act.

Threatened species

The proposal would be assessed through the Biodiversity Assessment Methodology (BAM) (OEH 2017). Once full floristic plots have been undertaken in areas of native vegetation to be impacted, the BAM Calculator would determine credit species requiring further consideration. A draft BAM Calculator was run for the results of the initial biodiversity survey. The results of the draft BAM calculations are listed in Table

7 1 and are used to provide preliminary advice on species that may require further assessment during the preparation of the EIS. Bionet and EPBC Protected Matters Search results are included in Appendix B.

Table 7-1 Preliminary intended targeted surveys

Common Name	Scientific Name	Survey Period
Fauna		
Australian Bustard	<i>Ardeotis australis</i>	All year
Barking Owl	<i>Ninox connivens</i>	May – December
Black-breasted Buzzard	<i>Hamirostra melanosternon</i>	September – November
Black-chinned Honeyeater	<i>Melithreptus gularis gularis</i>	June – December
Brolga	<i>Grus rubicunda</i>	All year
Bush Stone-curlew	<i>Burhinus grallarius</i>	All year
Chestnut Quail-thrush	<i>Cinclosoma castanotum</i>	July – August
Corben's Long-eared Bat	<i>Nyctophilus corbeni</i>	October – April
Diamond Firetail	<i>Stagonopleura guttata</i>	August – January
Dusky Woodswallow	<i>Artamus cyanopterus cyanopterus</i>	June – November
Flame Robin	<i>Petroica phoenicea</i>	All year
Gilbert's Whistler	<i>Pachycephala inornata</i>	August – November
Glossy Black Cockatoo	<i>Calyptorhynchus lathami</i>	May – August
Grey Falcon	<i>Falco hypoleucos</i>	July to October
Grey-crowned Babbler	<i>Pomatostomus temporalis</i>	July – February
Hooded Robin	<i>Melanodryas cucullata cucullata</i>	July – November
Koala	<i>Phascolarctos cinereus</i>	All year

Common Name	Scientific Name	Survey Period
Kultarr	<i>Antechinomys laniger</i>	All year
Little Eagle	<i>Hieraetus morphnoides</i>	August – October
Little Pied Bat	<i>Chalinolobus picatus</i>	November – March
Major Mitchell's Cockatoo	<i>Lophochroa leadbeateri</i>	September – December
Malleefowl	<i>Leipoa ocellata</i>	All year
Mallee Worm-lizard	<i>Aprasia inaurita</i>	September – December
Masked Owl	<i>Tyto novaehollandiae</i>	May – August
Painted Honeyeater	<i>Grantiella picta</i>	September – February
Pied Honeyeater	<i>Certhionyx variegatus</i>	June – November
Plains-wanderer	<i>Pedionomus torquatus</i>	All year
Shy Heathwren	<i>Hylacola cautus</i>	August – November
Southern Ningau	<i>Ningau yvonneae</i>	All year
Southern Scrub-robin	<i>Drymodes brunneopygia</i>	July – December
Speckled Warbler	<i>Chthonicola sagittata</i>	August – January
Spotted Harrier	<i>Circus assimilis</i>	All year
Square-tailed Kite	<i>Lophoictinia isura</i>	September – January
Superb Parrot	<i>Polytelis swainsonii</i>	September – November
Turquoise Parrot	<i>Neophema pulchella</i>	August – December
Varied Sittella	<i>Daphoenositta chrysoptera</i>	All year
Western Blue-tongued Lizard	<i>Tiliqua occipitalis</i>	November – March

Common Name	Scientific Name	Survey Period
White-bellied Sea-Eagle	<i>Haliaeetus morphnoides</i>	July – December
White-browed Treecreeper	<i>Climacteris affinis</i>	August – November
Yellow-bellied Sheath-tail-bat	<i>Saccolaimus flaviventris</i>	November – February
Flora		
A spear-grass	<i>Austrostipa metatoris</i>	October – November
Curly-bark Wattle	<i>Acacia curranii</i>	All year
Holly-leaf Grevillea	<i>Grevillea ilicifolia subsp. ilicifolia</i>	All year
Pine Donkey Orchid	<i>Diuris tricolor</i>	September – October
Silky Swainson-pea	<i>Swainsona sericea</i>	September – February
Winged Peppergrass	<i>Lepidium monophlooides</i>	November – February
Not on site		
Winged Peppergrass	<i>Lepidium monophlooides</i>	November – February
Australian Bittern	<i>Botaurus poiciloptilus</i>	October – March
Curlew Sandpiper	<i>Calidris ferruginea</i>	All
Sloane's Froglet	<i>Crinia sloanei</i>	July – August
Australian Painted Snipe	<i>Rostratula australis</i>	All year

Potential impacts

The following impacts upon biodiversity have been considered as having potential to occur during the construction and operation of the proposal:

- Removal of a small amount of native vegetation to construct one access point on Mitchell Highway.
- The removal of four paddock trees.
- Loss of nesting sites.

- Introduction and spread of invasive species and weeds.
- Disturbance or displacement of fauna.
- Microclimate impacts due to shading, water availability, temperature etc.
- Movement barrier and collision hazard by perimeter fencing.

Further assessment

A full floristic plot survey is required to determine the floristic composition, condition and TEC status of native vegetation at the proposal site. Fauna survey and habitat assessment is also required to determine the potential for the presence of threatened fauna species and habitat features such as tree hollows. These surveys and assessments would be undertaken as part of the EIS, under the BAM. This would include the calculation of any biodiversity offset required for the project.

7.2.2. Aboriginal heritage

A search of the Aboriginal Heritage Information Management System (AHIMS) on 25 November 2019 identified 4 Aboriginal sites and no Aboriginal places within 10 km of the proposed development site (Appendix C), with none recorded on-site.

Landforms, vegetation and soils over much of the proposal site have been heavily disturbed by clearing and cropping. This is likely to reduce the potential for Aboriginal heritage sites of significance in the affected areas. It is noted that field assessment is required to confirm this and that any Aboriginal heritage sites/items/etc. identified would be a moderate to high constraint, requiring impact mitigation.

Aboriginal consultation

Consultation with Aboriginal stakeholders would be undertaken in accordance with clause 80C of the *National Parks and Wildlife Amendment (Aboriginal Objects and Aboriginal Places) Regulation 2010* following the consultation steps outlined in the Aboriginal Cultural Heritage Consultation Requirements for Proponents provided by BCD.

A brief summary of the consultation process includes:

1. Registration and initial consultation and registration of Aboriginal community members.
2. Review of survey methodology by RAPs.
3. Completion of field work and reporting.
4. Review of report by RAPs.
5. Report finalisation.

Advertisement and registration for the Aboriginal Cultural Heritage Assessment will be undertaken concurrently with the submission of this Scoping Report.

Potential impacts

The following impacts upon Aboriginal heritage have been considered as having potential to occur during the construction of the proposal:

- Uncovering an unexpected or unidentified Aboriginal heritage item.

Further assessment

An Aboriginal heritage assessment of the development footprint and stakeholder consultation process would be completed as part of the EIS. The significance of any Aboriginal heritage sites that may be

potentially affected by the proposal would be determined in accordance with the *Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW* (OEH 2011).

7.2.3. Visual amenity and landscape character

The proposal is not anticipated to result in visual impacts to residents or road users.

The site is located within a rural area with large lot agricultural production and sparsely distributed residences usually located some distance from main roads. There are no potential sensitive receivers within 5 km of the subject land. The flat terrain and intermittent tree cover limits long range views in the locality.

An assessment of the level of visual disturbance would be undertaken as part of the EIS, though adverse impacts on neighbours are not anticipated. Additional consultation with the Nyngan community would be undertaken to identify the nature and significance of impacts and the need for mitigation measures.

It is noted that solar panels are designed to absorb as much sunlight as possible. They therefore reflect a very low percentage of the light and are not considered likely to result in glare or reflections that would affect traffic or nearby receivers. Additionally, proposed solar infrastructure would be located approximately 270 m from any road.

Further assessment

The need for a detailed visual impact assessment would be determined in consultation with neighbouring landholders.

7.2.4. Noise

There are no potential sensitive receivers within 5 km of the subject land, therefore no noise impacts are anticipated during construction or operation of the proposal.

Further assessment

No construction and operational noise assessment would be undertaken as part of the EIS as no potential noise impacts are anticipated.

Land use and resources

The Bogan LGA supports primarily agricultural businesses (>50%) with other industries, notably including construction, retail, logistics and real estate also providing employment opportunities.

The Mining, Petroleum, Production and Extractive Industries State Environmental Planning Policy 2007 (the Mining SEPP) extends across the proposal. The land is not classed as BSAL in the Mining SEPP Strategic Agricultural Land Map; BSAL has been described as land with high quality soil and water resources capable of sustaining high levels of productivity.

There are no mineral titles and two exploration licences relevant to the proposed development site indicated in the Minview database (DPE 2018) (Appendix D). A letter from GSNSW received on 27 November 2019 confirms that there are no current mineral, coal or petroleum titles on no extractive industries over the site or adjacent lands.

The current land use on the development site is mixed cropping and grazing agriculture. The development site comprises one paddock, which has been previously cleared and repeatedly cropped. The land is classified as Class 4 (moderate capability land) under the *Land and Soil Capability Assessment Scheme* (OEH 2012) and is described as land has moderate to high limitations for high-impact land uses. Land

management options for regular high-impact land uses such as cropping, intensive grazing and horticulture can require a high level of investment, knowledge and technology to maintain viable levels of productivity.

For the construction period, there would be a complete reduction in agricultural activities within the development footprint. During the operational phase, not all agricultural activities would be precluded, and it is highly likely sheep grazing could continue. As such, it can be expected that the nature of the agricultural activities would change from cropping and grazing to predominately grazing within the development site. This would be further explored in the EIS.

If the solar farm is decommissioned at the end of its operational life, all infrastructure (above and below ground) would be removed. It is expected that the land would be returned to its previous production uses, as solar farms typically do not have significant permanent impacts on soil and landform.

Further assessment

The impact on agricultural production in the locality and region would be assessed in detail in the EIS.

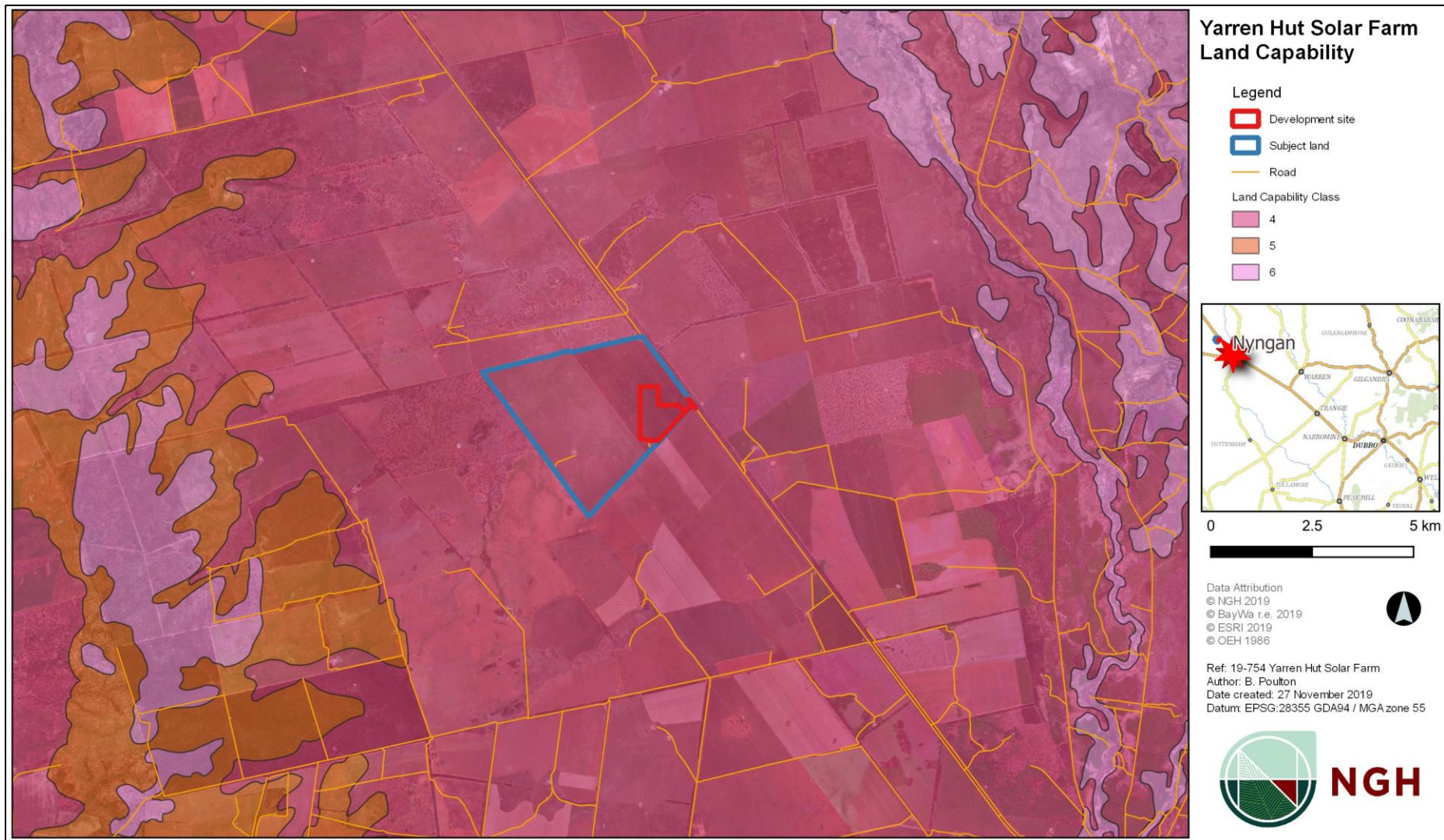


Figure 7-2 Land and soil capability of the proposed development site

7.2.5. Watercourses and hydrology

There are no watercourses within or near the development site, nor is it located within any floodplains. The closest river is the Bogan River that runs through the town of Nyngan, 17 km to the southeast. The closest point of the Bogan River to the development site is approximately 10 km east, the floodplain of which is contained within the eastern side of the Mitchell Highway.

Six man-made dam exists within the subject land of Lot 21 DP 704061. None of these dams would be impacted by the proposal. As such, any impact to threatened aquatic systems are likely to be minimal.

Water demand for the proposal would be relatively small, as construction of the solar farm is not water intensive. No surface or groundwater extraction of water is required.

There are no aquatic groundwater dependant ecosystems (GDE) as shown in Figure 7-3. Terrestrial GDEs mapped within and in proximity to the development site are shown in Figure 7-4. There is a low potential for groundwater to be encountered during excavations and earthwork for the construction.

The proposal area is not identified as flood prone land under the Bogan LEP.

Potential Impacts

Impacts upon watercourses and hydrology considered as having the potential to occur during the construction of the proposal include:

- Accidental release of hydrocarbons by inappropriate storage, use and disposal of chemicals.
- Domestic waste, effluent and putrescibles causing contamination.
- Erosion of soil and sedimentation through stormwater runoff.

Further assessment

The design of the site is recommended to accommodate overland flow and avoid design that prevents natural flow or creates ponding. There is no requirement for the site to undertake further flow modelling, and due to the flatness of site, all mitigation measures can be implemented in design and construction.

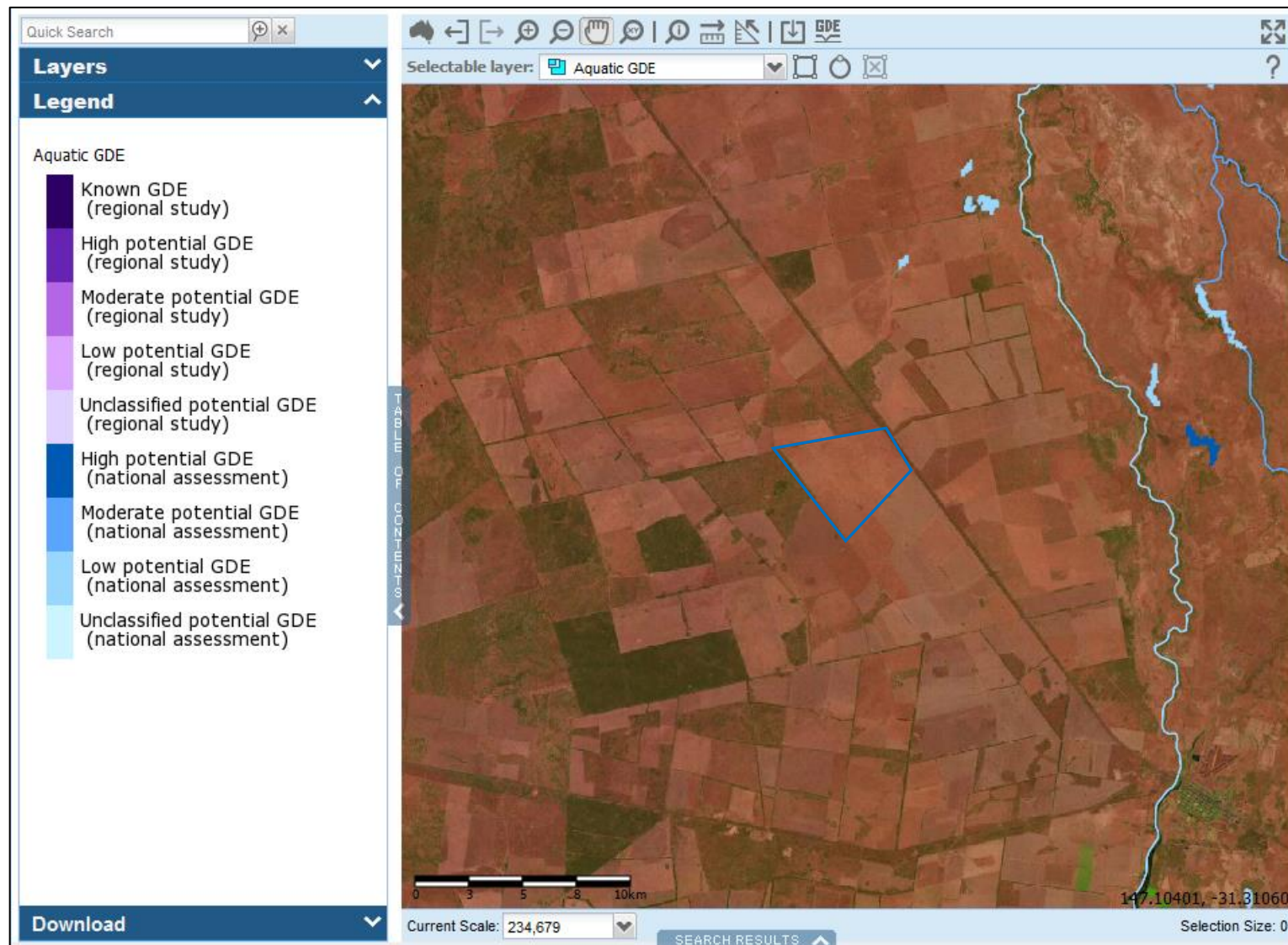


Figure 7-3 Aquatic Groundwater Dependent Ecosystems with the subject land in blue (source: BoM 2019)

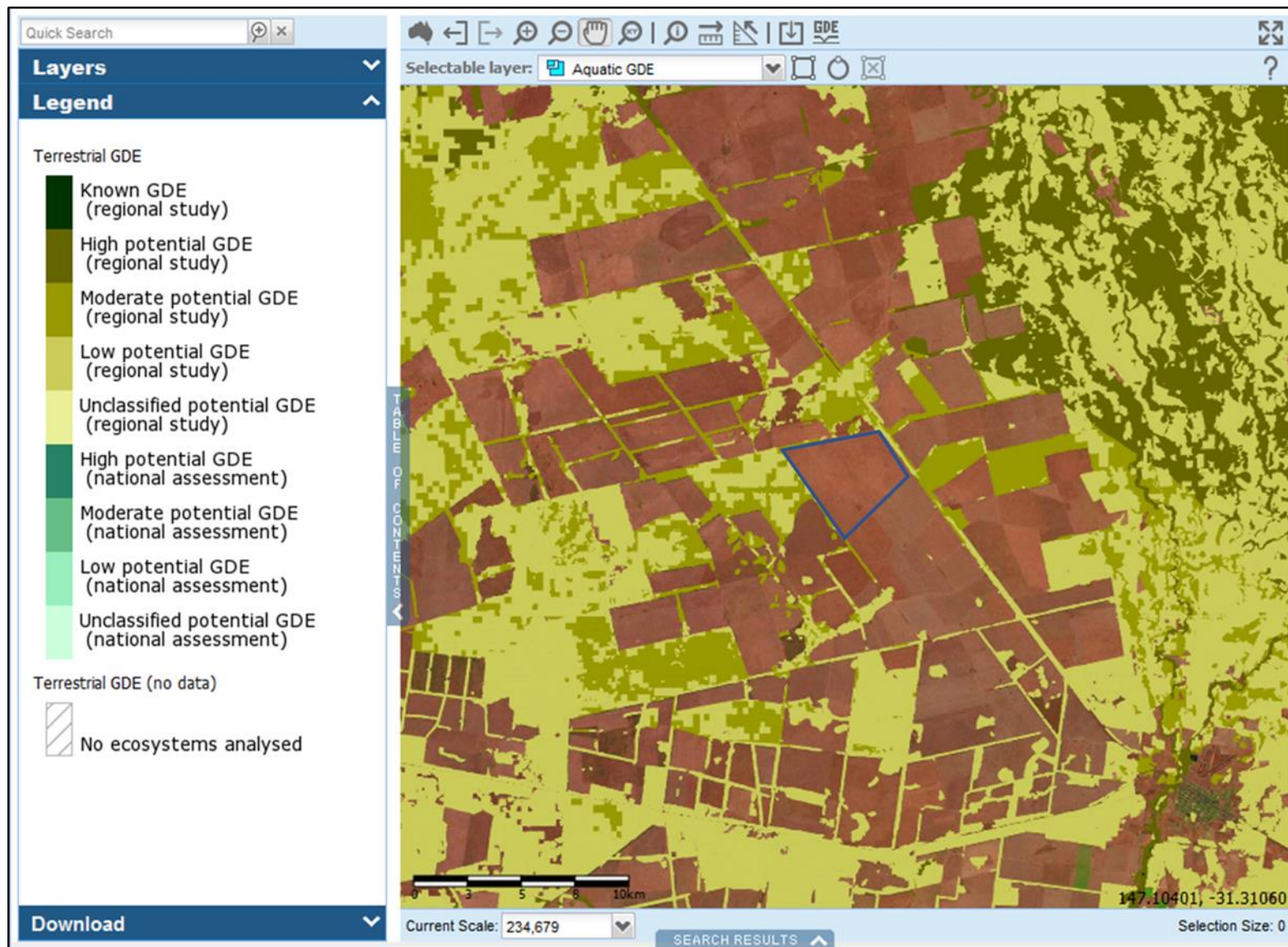


Figure 7-4 Terrestrial Groundwater Dependent Ecosystems with the subject land in blue (source: BoM 2019)

7.3. OTHER ENVIRONMENTAL ISSUES

There are a range of potential environmental issues associated with the proposal which are not considered to be key issues. These are considered secondary issues for investigation, given the characteristics of the proposal and the availability of appropriate safeguards for mitigation. These issues are outlined Table 7-2. The impacts and any required mitigation relating to these issues would be addressed at an appropriate level of detail in the EIS.

Table 7-2 Other environmental issues

Existing environment	Potential impacts	Management and mitigation
Soils An eSPADE soil profile (253) (OEH 2019) taken from close proximity to the development site within the Mitchell Highway road reserve. The soil is characterised as brown chromosol, permeable and imperfectly drained. It had fragile medium textured surfaces (low organic matter), that was weak crust. The soil profile ranged from loam to sandy loam at a depth of 10 cm to light clay below 30 cm. No soil fauna activity, cracks or macropores were observed in the characterising sample. Historical heritage A search of the NSW heritage Register on 25 November 2019 for the Bogan LGA identified 0 Aboriginal places under the NPW Act, 11 items under the Heritage Act, listed by State and local government agencies, and no items on the Australian Heritage Database (Appendix C). The closest listed heritage items are located in the Nyngan townsite, approximately 17 km southeast from the western boundary of the proposed development site (Appendix C). Access and traffic The development site would be accessed from one point off Mitchell Highway. Access design and location is indicative only, subject to further assessment and specialist input. Internal access tracks would be constructed as part of the works. The major transport route is also subject to further assessment, specialist input and consultation with Bogan Shire. Mitchell Highway is an existing 26 m B-double route.	Construction activities would include minor excavations and vegetation removal, which have the potential to cause soil erosion and sedimentation and dust issues. There is considered to be a low risk of impact to heritage items. Construction traffic could impact traffic along Mitchell Highway turning into the private access track. Maintenance and emergency access points during operation may also be required across the development site, likely opening onto agricultural land retained by the landowner.	The design would provide all weather unsealed road access at the site during construction and operation to avoid erosion/sedimentation impacts and tracking of soil, in particular after rain events. The EIS would provide thorough consideration of soil impacts and proposed mitigation measures during construction and operation. The heritage status of the site would be assessed during fieldwork undertaken as part of the archaeological assessment. Appropriate management measures would be implemented if required. Construction traffic impacts would be considered in the EIS. Consultation would be undertaken with the Bogan Shire and local residents regarding the works that may affect roads or traffic. The design would also consider requirements from the RMS, local

Existing environment	Potential impacts	Management and mitigation
	During construction, impacts to residences along the transport route is unlikely.	council and other relevant stakeholders on access arrangements. The mitigation measures would require a Traffic Management Plan to be prepared.
Contamination The EPA contaminated land register identified no contaminated sites within the Bogan LGA (Appendix D). Contamination associated with agricultural activities (e.g. pesticides, petrochemicals) may still be present on the site.	There is potential that contaminants may be uncovered during excavation activities at the site.	Risks associated with contamination at the site are considered low and therefore no detailed investigation is likely to be required within the EIS. The mitigation measures would require a CEMP to be prepared to manage any contamination identified during site construction.
Air quality The air quality in the study area is expected to be good and typical of rural settings in NSW with low population density and few industrial pollution sources. Existing sources of air pollution are expected to include vehicle emissions, dust from agricultural practices and smoke from seasonal stubble burning. During colder months, solid fuel heating may result in a localised reduction in air quality, particularly if temperature inversions operate overnight.	The construction of the proposal is not anticipated to have a significant impact on air quality and would mostly be related to dust during dry periods from internal access tracks. Impacts to air quality during operation would be negligible.	The mitigation measures would require a CEMP to be prepared to manage air quality impacts during the construction phase. There is an opportunity to improve local air quality by maintaining groundcover vegetation under the panels.
Hazard and risk – electric and magnetic fields (EMF) The existing Essential Energy transmission line runs diagonally across Lot 21 DP 704061. Additional infrastructure, which forms part of the proposal such as connecting powerlines and substation would produce additional electromagnetic emissions at the site.	The substation and network connection would be located on the proposal site. The powerlines constructed as part of the proposal would not pass through any neighbouring properties. The EMF that would be generated by the proposed	The EMF levels of the proposed powerlines and substation would be assessed as part of the EIS.

Existing environment	Potential impacts	Management and mitigation
	powerlines and substation is expected to be below the guideline for public exposure and would not be expected to have an adverse impact on human health.	
Hazard and risk - bushfire The development site has been previously cleared for agriculture with little remnant vegetation bordering the development site. The property is identified as Vegetation Category 3 bushfire prone land by the NSW Rural Fire Service.	There is some risk that the proposal could be affected by bushfire or pose a significant bushfire risk.	Bushfire impacts and risk would be assessed in the EIS. Risk of fire from proposed infrastructure would also be addressed in the EIS.
Social and economic impacts In 2016, the Bogan LGA had a population of 2,159. The main industry of employment in 2016 was agriculture, employing 26.3% of workers. Mining was the second largest employer, providing employment for 10.9% of workers (ABS 2016). Workforce accommodation would be required for potentially 40 workers during peak construction periods. A portion of these would already reside locally. For visiting workers, accommodation can be sought in Nyngan.	The proposal would reduce the availability of agricultural land but would generate economic benefits during construction and operation, including local employment opportunities.	The EIS would assess potential social and economic impacts of the proposal.
Utilities Electricity network Essential Energy is a state-owned electricity infrastructure company which owns, maintains and operates the electrical distribution networks for much of New South Wales. Essential Energy guidelines state that activities and encroachments are prohibited within a transmission line easement, including 'the installation of fixed plant or equipment', and 'the placing of obstructions within 20 metres of any part of a transmission line structure or supporting guy wire'. Roads or tracks within 10 metres of the centre-line of a transmission line 66 kV are prohibited although roads that cross the transmission line as a thoroughfare may be permitted.	The proposed works would involve works adjacent to these utilities. The solar farm will need to connect to the Essential Energy electricity network.	The EIS would assess the proposal against the setback and approval requirements of Essential Energy. The solar farm would be designed to comply with required setback, approval and consultation requirements of Essential Energy.

Existing environment	Potential impacts	Management and mitigation
Waste management The proposal would generate several waste streams and utilise a variety of materials during the construction phase.	During construction, packaging from panels and other components would require disposal. Limited operational waste would be associated with the proposal.	A Waste Management Plan would be incorporated into the CEMP, applying the principles to avoid, re-use and recycle to minimise wastes. Cleared trees would be chipped and used for landscaping within the development site.
Cumulative impacts The proposal would contribute to overall infrastructure development in the region. A review of the SSD Register for the Bogan LGA was conducted on 26 November 2019. Two major solar farm developments (Nyngan and Bogan River) have been approved. The Bogan River Solar Farm was subsequently discontinued in 2018. Two other SSDs have been applied for including the Nyngan Scandium Mine (Determination) and the Western Slopes Pipeline (Prepare EIS). Approved and known planned solar farm developments in the surrounding region include: • Warren Shire – Nevertire Solar Farm.	During construction and operation, key cumulative impacts may include additional stress on the grid, community complaints such as visual amenity impacts, stress on local business for supply and demand (in particular staff accommodation), noise impacts, air quality, waste management, traffic etc.	Early consultation with the community regarding cumulative impacts should be conducted. Further assessment/investigation of cumulative impacts will be required, and the EIS would assess potential impact and risk.

8. CONCLUSION

The Preliminary EIA has outlined the proposed Yarren Hut Solar Farm and established the environmental and planning context of the proposal. The proposal would be assessed under Part 4 of the EP&A Act and classed as SSD under SEPP (State and Regional Development) 2011.

This Scoping Report has been prepared to assist the development of the SEARs for the proposal, which will guide the preparation of the EIS.

The Scoping Report identifies the following key environmental issues associated with the proposal, based on the preliminary investigations:

- Biodiversity.
- Aboriginal heritage.
- Visual amenity.
- Noise.
- Land use and resources.
- Watercourses and hydrology.

These issues will be assessed in detail in the EIS. It is likely that other issues such as soil values, traffic impacts and natural hazards can be readily addressed by appropriate standard mitigation and management measures. The relevance and importance of issues would be reviewed throughout the EIS process.

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APPENDIX A CONSULTATION TO DATE

A.1 COMMUNITY INFORMATION FLYER



BayWa r.e. Projects Australia Pty Ltd | Level 2, 79-81 Coppin St, Richmond, Victoria 3121

15 November 2019

Dear Resident,

Proposed Yarren Hut Solar Farm

We write to inform you of our proposal to develop a solar farm approximately 17 km north west of Nyngan, New South Wales. This letter will introduce you to our proposal and inform you about an upcoming community consultation event and the planning process.

About BayWa r.e.

BayWa r.e. began operations in Australia in 2017 through the acquisition of Future Energy Pty Ltd and its pipeline of wind farm projects. Future Energy was established in 2004 to develop, construct, own and operate renewable energy projects throughout Australia. BayWa r.e. has various projects under operation in Australia which include 2 wind and 3 solar projects with capacities ranging from 7.2 MW to 100 MW.

About the Solar Farm

The location of the proposed Yarren Hut Solar Farm is approximately 17 km north-west of Nyngan, NSW along the Mitchell highway. A map of the site is shown below:

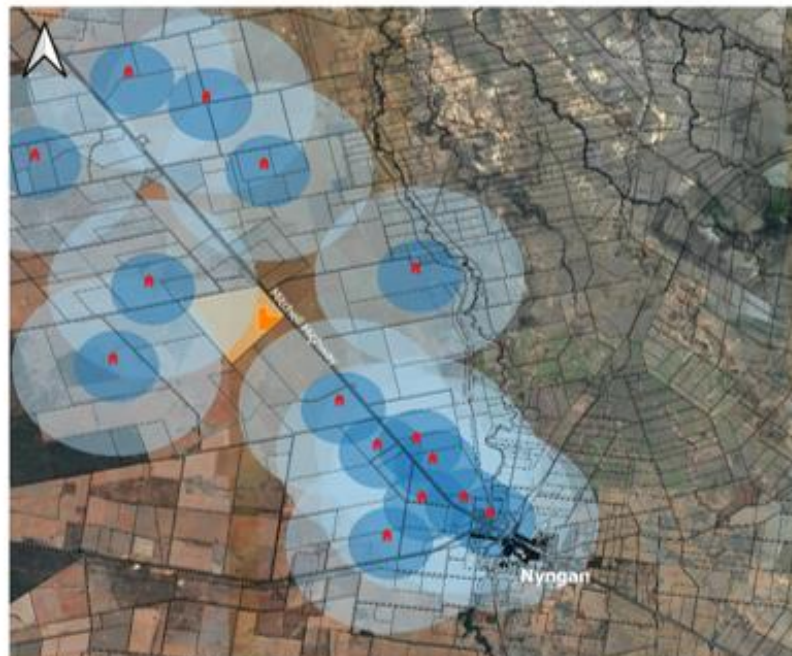
Yarren Hut Solar Farm

-  Development footprint
-  Lot 21 DP 704061
-  Dwellings / buildings
-  2 km buffer
-  5 km buffer



0 2.5 5 km

Date: 14 November 2019



BayWa r.e. Projects Australia Pty Ltd | Level 2, 79-81 Coppin St, Richmond | Victoria 3121 | Australia | Tel: +61 3 9429 5829
www.baywa-re.com | ACN 606 343 757 | ABN 51 606 343 757

The solar farm will consist of a solar tracking system with a total capacity of approximately thirty-five megawatts (35 MW), and it will connect into the local 66 kV electrical network. The facility will produce enough power for about 9,000 homes, making their greenhouse benefit equivalent to planting approximately 530,000 trees. The estimated energy and greenhouse benefits of the Yarren Hut Solar Farm are shown in the table below.

Energy output per year	76,000 MWh
Greenhouse gas abatement per year	53,000 Tons of CO ₂
Equivalent number of households supplied	~9,000
Equivalent number of cars taken off the road	~11,000
Equivalent number of trees planted	~530,000

This site was chosen for the following reasons:

- It receives a large amount of sunshine.
- There are large setbacks to nearby dwellings.
- There will be minimal impacts to flora and fauna.
- It is near the electrical grid.
- It offers easy access.

Connection to the Electricity Grid

The solar farm will not require any new power lines. Instead it will connect into the existing local electrical network. The solar farm cannot be any larger as the local electrical network has limited capacity.

Development Consent Process

Our Preliminary Environmental Assessment and Environmental Impact Statement for the Yarren Hut Solar Farm will be lodged with the Department of Planning, Industry and Environment (DPIE) in the coming months. The application will be assessed against the *Secretary's Environmental Assessment Requirements* and will cover the impact of the project on the following aspects:

- Flora and fauna.
- Cultural heritage.
- Visual impact.
- Stormwater and flood.
- Traffic.
- Dust and noise.

After submissions to the DPIE, these planning documents relating to the solar farm will be made available on the DPIE website as well as on our project website (www.yarrenhutsolarfarm.com.au).

Construction Process

Once a permit has been issued and financing completed, construction of the solar farm can begin and will take around six months. The construction process starts with construction of the access tracks and construction pads. This is followed by installation of the tracking system structure, solar panels, underground cabling and grid connection infrastructure (sub-station and switching station). The final stage is the commissioning of the solar farm and connection into the local electricity grid so that the export of energy can begin.

Community Consultation

On Monday, 2 December 2019 at 3 pm – 6 pm, BayWa r.e. staff will be holding an information session about this proposed solar farm at the Nyngan Bowling Club. We would like to invite you to this event. BBQ and soft drinks will be provided. We are also contactable by email, phone and post. Our contact details are at the bottom of this letter.

For more information about BayWa r.e. and specific projects please visit our website at www.baywa-re.com.au or call us on +61 3 9429 5629, or email us at info@baywa-re.com.au.

Yours faithfully,

Kevin Heydt

General Manager - NSW

A.2 RESIDENT MAILOUT REGISTER

No.	Lot/DP	Address	Notes
R11	3/1161284	Neiley Mitchell Highway, GIRILAMBONE 2831	Letter sent on 15/11/19. Delivery failed. Trevor Donnelly has informed us that this dwelling is currently unoccupied.
R2b	30/751320	Grahweed Mitchell Highway, NYNGAN 2825	Letter sent on 15/11/19. Delivery failed but letter below (No.4) was delivered to this landowner.
R3	29/705251	Woodlands, 486 Days Road, NYNGAN 2825	Letter sent on 15/11/19. Delivery failed. Trevor Donnelly has informed us that this dwelling is currently unoccupied.

No.	Lot/DP	Address	Notes
R2a	1/751324	Old Kidgery, Old Kidgery RD, NYNGAN 2825	Letter sent on 15/11/19. Delivered on 25/11/19.
R1a	2/751317	Caro Mitchell Highway, NYNGAN 2825	Landowner. This dwelling is unoccupied.
R4	3/751307	Bonna, Old Kidgery Road, NYNGAN 2825	Letter sent on 15/11/19. Delivery failed.
R6	22/751310	Munda Westlyn Road, NYNGAN 2825	Letter sent on 15/11/19. Delivered on 28/11/19.
R5	24/704062		Landowner's daughter
R1b	26/751328	PT Wilgaree Mitchell Highway, NYNGAN 2825	Landowner's brother
R10	23/751328	Mitchell Highway, NYNGAN 2825 36 Cobar St Nyngan NSW 2825	Letter sent on 15/11/19. Delivered on 5/12/19.
R7	15/751328	Noonameena, West Bogan Road, NYNGAN 2825	Letter sent on 15/11/19. Awaiting collection at Nyngan PO since 25/11/19.
R1c	44/728721	Lynch, Mitchell Highway, NYNGAN 2825	Landowner
R8	17/751328	17 Mitchell Highway, NYNGAN 2825	Letter sent on 15/11/19. Delivered on 29/11/19.
R9	4/758803	Title not found	
R1d	1/875384	Lynch, Barrier Highway, NYNGAN 2825	Landowner

A.3 COMMUNITY MEETING SIGN-IN SHEET



Yarren Hut Solar Farm, 2 December 2019 information session – attendance list

Name	Address of property near development	Postal address	Phone number and email address	Would you like updates on the project?
Emily Stanton	46 Barrier Hwy Nyngan 2825	PO Box 18 Nyngan 2825	0400387225 emilystanton@outlook	yes
Trevor Donnelly	Goree, Old Kidger, Wilgobone Mitchell Hwy	PO Box 172 Nyngan 2825	0428331063 ttdonnelly@bigpond.com	yes

A.4 PRELIMINARY MEETING WITH BOGAN SHIRE - MINUTES



Date: 2 December 2019

Time: 12 pm

Location: Bogan Shire Council, 81 Cobar Street, Nyngan, NSW 2825

In attendance

Bogan Shire Council:

- Tony Payne, Director Development and Environmental Services:
Tony.Payne@bogan.nsw.gov.au, Tel: (02) 6835 9000, Mobile: 0437 445 496
- Jackson Williams-Hedge, Graduate Health & Building Surveyor:
admin@boga.nsw.gov.au, Tel: (02) 6835 9000, Mobile: 0428 239 490

BayWa r.e.:

- Kevin Heydt
- Thomas Parel

Key points discussed

- Sub-division: for another (non-solar) project where sub-division was required below the minimum lot size, the proponent had to provide justifications for sub-division to the council. The council granted approval (under Set 1 objections) with a condition that the sub-divided lots cannot be used for constructing dwellings. The council did not raise any concerns regarding the need for sub-division of the lot.
- For a State Significant Development (SSD) project the council is not sure if the sub-division has to be approved by DPIE or if council approved sub-division is adequate. They recommended talking to Tim Collins in the DPIE branch in Dubbo (rather than talking to DPIE in Sydney). His supervisor is Wayne (surname unknown).
- Haulage route: Bogan Shire Council had no specific concerns about the haulage route but recommended talking to the Warren Council General Manager. Nevertire Solar Farm is located in this council and is also located along the same highway (i.e. Mitchell Highway) so if there are any issues, Warren Council will be able to advise.
- Council rates for the solar farm: we were advised to send an email to Tony Payne. He will contact the Finance Department who will advise applicable council rates for the project. He mentioned that there might be a standard methodology for calculation of rates for solar farms.
- The council is encouraging the use of local labour as much as possible for this project. A local mine has announced that they may lay off workers in 2020 due to water shortages so the council is concerned about loss of jobs in the area.
- Council had no concerns about the project at this stage but will review the project as it progresses through the development consent process.]

APPENDIX B BIODIVERSITY BACKGROUND SEARCHES

B.1 EPBC ACT PROTECTED MATTERS SEARCH



Australian Government
Department of the Environment and Energy

EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected.

Information on the coverage of this report and qualifications on data supporting this report are contained in the caveat at the end of the report.

Information is available about [Environment Assessments](#) and the EPBC Act including significance guidelines, forms and application process details.

Report created: 25/11/19 13:50:25

[Summary](#)

[Details](#)

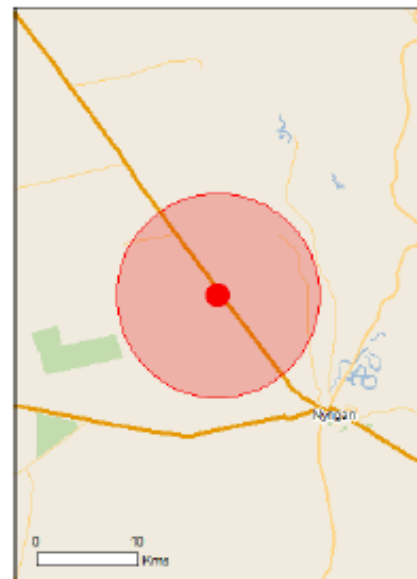
[Matters of NES](#)

[Other Matters Protected by the EPBC Act](#)

[Extra Information](#)

[Caveat](#)

[Acknowledgements](#)



This map may contain data which are
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[Coordinates](#)

Buffer: 10.0Km



Summary

Matters of National Environmental Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the [Administrative Guidelines on Significance](#).

World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International Importance:	3
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	4
Listed Threatened Species:	9
Listed Migratory Species:	7

Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place. Information on the new heritage laws can be found at <http://www.environment.gov.au/heritage>

A [permit](#) may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

Commonwealth Land:	None
Commonwealth Heritage Places:	None
Listed Marine Species:	13
Whales and Other Cetaceans:	None
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	None

Extra Information

This part of the report provides information that may also be relevant to the area you have nominated.

State and Territory Reserves:	None
Regional Forest Agreements:	None
Invasive Species:	20
Nationally Important Wetlands:	None
Key Ecological Features (Marine)	None

Details

Matters of National Environmental Significance

Wetlands of International Importance (Ramsar)	[Resource Information]
Name	Proximity
Banrock station wetland complex	600 - 700km upstream
Riverland	600 - 700km upstream
The coorong, and lakes alexandrina and albert wetland	800 - 900km upstream

Listed Threatened Ecological Communities [Resource Information]

For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Name	Status	Type of Presence
Coolibah - Black Box Woodlands of the Darling Riverine Plains and the Brigalow Belt South Bioregions	Endangered	Community likely to occur within area
Grey Box (Eucalyptus microcarpa) Grassy Woodlands and Derived Native Grasslands of South-eastern Australia	Endangered	Community may occur within area
Poplar Box Grassy Woodland on Alluvial Plains	Endangered	Community likely to occur within area
Weeping Myall Woodlands	Endangered	Community likely to occur within area

Listed Threatened Species [Resource Information]

Name	Status	Type of Presence
Birds		
Botaurus poiciloptilus Australasian Bittern [1001]	Endangered	Species or species habitat may occur within area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area
Grantiella picta Painted Honeyeater [470]	Vulnerable	Species or species habitat likely to occur within area
Leipoa ocellata Malleefowl [934]	Vulnerable	Species or species habitat likely to occur within area
Pedionomus torquatus Plains-wanderer [906]	Critically Endangered	Species or species habitat may occur within area
Polytelis swainsonii Superb Parrot [738]	Vulnerable	Species or species habitat known to occur within area
Rostratula australis Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area
Mammals		

Name	Status	Type of Presence
Nyctophilus corbeni Corben's Long-eared Bat, South-eastern Long-eared Bat [83395]	Vulnerable	Species or species habitat likely to occur within area

[Phascogale cinereus \(combined populations of Qld, NSW and the ACT\)](#)

Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory) [85104]	Vulnerable	Species or species habitat may occur within area
--	------------	--

Listed Migratory Species

[Resource Information]

* Species is listed under a different scientific name on the EPBC Act - Threatened Species list.

Name	Threatened	Type of Presence
Migratory Marine Birds		

[Apus pacificus](#)

Fork-tailed Swift [878]		Species or species habitat likely to occur within area
-------------------------	--	--

Migratory Terrestrial Species

[Motacilla flava](#)

Yellow Wagtail [844]		Species or species habitat may occur within area
----------------------	--	--

Migratory Wetlands Species

[Actitis hypoleucos](#)

Common Sandpiper [59309]		Species or species habitat may occur within area
--------------------------	--	--

[Calidris acuminata](#)

Sharp-tailed Sandpiper [874]		Species or species habitat may occur within area
------------------------------	--	--

[Calidris ferruginea](#)

Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area
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[Calidris melanotos](#)

Pectoral Sandpiper [858]		Species or species habitat may occur within area
--------------------------	--	--

[Gallinago hardwickii](#)

Latham's Snipe, Japanese Snipe [863]		Species or species habitat may occur within area
--------------------------------------	--	--

Other Matters Protected by the EPBC Act

Listed Marine Species

[Resource Information]

* Species is listed under a different scientific name on the EPBC Act - Threatened Species list.

Name	Threatened	Type of Presence
Birds		

[Actitis hypoleucos](#)

Common Sandpiper [59309]		Species or species habitat may occur within area
--------------------------	--	--

[Apus pacificus](#)

Fork-tailed Swift [878]		Species or species habitat likely to occur within area
-------------------------	--	--

[Ardea alba](#)

Great Egret, White Egret [59541]		Species or species habitat likely to occur within area
----------------------------------	--	--

[Ardea ibis](#)

Cattle Egret [59542]		Species or species habitat may occur within area
----------------------	--	--

Name	Threatened	Type of Presence
<u>Calidris acuminata</u> Sharp-tailed Sandpiper [874]		Species or species habitat may occur within area
<u>Calidris ferruginea</u> Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area
<u>Calidris melanotos</u> Pectoral Sandpiper [858]		Species or species habitat may occur within area
<u>Chrysococcyx osculans</u> Black-eared Cuckoo [705]		Species or species habitat likely to occur within area
<u>Gallinago hardwickii</u> Latham's Snipe, Japanese Snipe [863]		Species or species habitat may occur within area
<u>Haliaeetus leucogaster</u> White-bellied Sea-Eagle [943]		Species or species habitat likely to occur within area
<u>Merops ornatus</u> Rainbow Bee-eater [670]		Species or species habitat may occur within area
<u>Motacilla flava</u> Yellow Wagtail [644]		Species or species habitat may occur within area
<u>Rostratula benghalensis (sensu lato)</u> Painted Snipe [889]	Endangered*	Species or species habitat likely to occur within area

Extra Information

Invasive Species [\[Resource Information \]](#)

Weeds reported here are the 20 species of national significance (WoNS), along with other introduced plants that are considered by the States and Territories to pose a particularly significant threat to biodiversity. The following feral animals are reported: Goat, Red Fox, Cat, Rabbit, Pig, Water Buffalo and Cane Toad. Maps from Landscape Health Project, National Land and Water Resources Audit, 2001.

Name	Status	Type of Presence
Birds		
<i>Anas platyrhynchos</i> Mallard [974]		Species or species habitat likely to occur within area
<i>Carduelis carduelis</i> European Goldfinch [403]		Species or species habitat likely to occur within area
<i>Columba livia</i> Rock Pigeon, Rock Dove, Domestic Pigeon [803]		Species or species habitat likely to occur within area
<i>Passer domesticus</i> House Sparrow [405]		Species or species habitat likely to occur within area
<i>Sturnus vulgaris</i> Common Starling [389]		Species or species habitat likely to occur within area

Name	Status	Type of Presence
<i>Turdus merula</i> Common Blackbird, Eurasian Blackbird [506]		Species or species habitat likely to occur within area
Mammals		
<i>Bos taurus</i> Domestic Cattle [16]		Species or species habitat likely to occur within area
<i>Canis lupus familiaris</i> Domestic Dog [82654]		Species or species habitat likely to occur within area
<i>Capra hircus</i> Goat [2]		Species or species habitat likely to occur within area
<i>Felis catus</i> Cat, House Cat, Domestic Cat [19]		Species or species habitat likely to occur within area
<i>Lepus capensis</i> Brown Hare [127]		Species or species habitat likely to occur within area
<i>Mus musculus</i> House Mouse [120]		Species or species habitat likely to occur within area
<i>Oryctolagus cuniculus</i> Rabbit, European Rabbit [128]		Species or species habitat likely to occur within area
<i>Rattus rattus</i> Black Rat, Ship Rat [84]		Species or species habitat likely to occur within area
<i>Sus scrofa</i> Pig [6]		Species or species habitat likely to occur within area
<i>Vulpes vulpes</i> Red Fox, Fox [18]		Species or species habitat likely to occur within area
Plants		
<i>Anredera cordifolia</i> Madeira Vine, Jalap, Lamb's-tail, Mignonette Vine, Anredera, Gulf Madeiravine, Heartleaf Madeiravine, Potato Vine [2643]		Species or species habitat likely to occur within area
<i>Dolichandra unguis-cati</i> Cat's Claw Vine, Yellow Trumpet Vine, Cat's Claw Creeper, Funnel Creeper [85119]		Species or species habitat likely to occur within area
<i>Lycium ferocissimum</i> African Boxthorn, Boxthorn [19235]		Species or species habitat likely to occur within area
<i>Opuntia</i> spp. Prickly Pears [82753]		Species or species habitat likely to occur within area

Caveat

The information presented in this report has been provided by a range of data sources as acknowledged at the end of the report.

This report is designed to assist in identifying the locations of places which may be relevant in determining obligations under the Environment Protection and Biodiversity Conservation Act 1999. It holds mapped locations of World and National Heritage properties, Wetlands of International and National Importance, Commonwealth and State/Territory reserves, listed threatened, migratory and marine species and listed threatened ecological communities. Mapping of Commonwealth land is not complete at this stage. Maps have been collated from a range of sources at various resolutions.

Not all species listed under the EPBC Act have been mapped (see below) and therefore a report is a general guide only. Where available data supports mapping, the type of presence that can be determined from the data is indicated in general terms. People using this information in making a referral may need to consider the qualifications below and may need to seek and consider other information sources.

For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Threatened, migratory and marine species distributions have been derived through a variety of methods. Where distributions are well known and if time permits, maps are derived using either thematic spatial data (i.e. vegetation, soils, geology, elevation, aspect, terrain, etc) together with point locations and described habitat; or environmental modelling (MAXENT or BIOCLIM habitat modelling) using point locations and environmental data layers.

Where very little information is available for species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc). In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More reliable distribution mapping methods are used to update these distributions as time permits.

Only selected species covered by the following provisions of the EPBC Act have been mapped:

- migratory and
- marine

The following species and ecological communities have not been mapped and do not appear in reports produced from this database:

- threatened species listed as extinct or considered as vagrants
- some species and ecological communities that have only recently been listed
- some terrestrial species that overfly the Commonwealth marine area
- migratory species that are very widespread, vagrant, or only occur in small numbers

The following groups have been mapped, but may not cover the complete distribution of the species:

- non-threatened seabirds which have only been mapped for recorded breeding sites
- seals which have only been mapped for breeding sites near the Australian continent

Such breeding sites may be important for the protection of the Commonwealth Marine environment.

Coordinates

-31.47312 147.09104

B.2 BIONET THREATENED SPECIES SEARCH

Matching records: 151

[Save to CSV](#)

[Click on column headers to sort](#)

IBRA Subregion	Scientific name ▲	Common name	NSW status	Commonwealth status	Occurrence	Vegetation class
Lachlan Plains	Acacia curranii	Curly-bark Wattle	Vulnerable	Vulnerable	Known	Western Peneplain Woodlands
Lachlan Plains	Acacia curranii	Curly-bark Wattle	Vulnerable	Vulnerable	Known	Inland Rocky Hill Woodlands
Lachlan Plains	Antechinomys laniger	Kultarr	Endangered		Known	Western Peneplain Woodlands
Lachlan Plains	Antechinomys laniger	Kultarr	Endangered		Known	Dune Mallee Woodlands
Lachlan Plains	Antechinomys laniger	Kultarr	Endangered		Known	Sand Plain Mallee Woodlands
Lachlan Plains	Antechinomys laniger	Kultarr	Endangered		Known	Semi-arid Sand Plain Woodlands
Lachlan Plains	Antechinomys laniger	Kultarr	Endangered		Known	Inland Rocky Hill Woodlands
Lachlan Plains	Aprasia inaurita	Mallee Worm-lizard	Endangered		Known	Dune Mallee Woodlands
Lachlan Plains	Aprasia inaurita	Mallee Worm-lizard	Endangered		Known	Sand Plain Mallee Woodlands
Lachlan Plains	Ardeotis australis	Australian Bustard	Endangered		Known	Western Peneplain Woodlands
Lachlan Plains	Ardeotis australis	Australian Bustard	Endangered		Known	Sand Plain Mallee Woodlands
Lachlan Plains	Ardeotis australis	Australian Bustard	Endangered		Known	Semi-arid Sand Plain Woodlands
Lachlan Plains	Artamus cyanopterus cyanopterus	Dusky Woodswallow	Vulnerable		Known	Western Peneplain Woodlands
Lachlan Plains	Artamus cyanopterus cyanopterus	Dusky Woodswallow	Vulnerable		Known	Dune Mallee Woodlands

Lachlan Plains	Artamus cyanopterus cyanopterus	Dusky Woodswallow	Vulnerable		Known	Sand Plain Mallee Woodlands
Lachlan Plains	Artamus cyanopterus cyanopterus	Dusky Woodswallow	Vulnerable		Known	Semi-arid Sand Plain Woodlands
Lachlan Plains	Artamus cyanopterus cyanopterus	Dusky Woodswallow	Vulnerable		Known	Inland Rocky Hill Woodlands
Lachlan Plains	Austrostipa metatoris	A spear-grass	Vulnerable	Vulnerable	Known	Western Peneplain Woodlands
Lachlan Plains	Austrostipa metatoris	A spear-grass	Vulnerable	Vulnerable	Known	Sand Plain Mallee Woodlands
Lachlan Plains	Austrostipa wakoolica	A spear-grass	Endangered	Endangered	Known	Western Peneplain Woodlands
Lachlan Plains	Austrostipa wakoolica	A spear-grass	Endangered	Endangered	Known	Sand Plain Mallee Woodlands
Lachlan Plains	Burhinus grallarius	Bush Stone-curlew	Endangered		Known	Western Peneplain Woodlands

Lachlan Plains	Burhinus grallarius	Bush Stone-curlew	Endangered		Known	Semi-arid Sand Plain Woodlands
Lachlan Plains	Calyptorhynchus lathami - endangered population	Glossy Black-Cockatoo, Riverina population	Endangered Population		Known	Western Peneplain Woodlands
Lachlan Plains	Calyptorhynchus lathami - endangered population	Glossy Black-Cockatoo, Riverina population	Endangered Population		Known	Inland Rocky Hill Woodlands
Lachlan Plains	Certhionyx variegatus	Pied Honeyeater	Vulnerable		Known	Western Peneplain Woodlands
Lachlan Plains	Certhionyx variegatus	Pied Honeyeater	Vulnerable		Known	Dune Mallee Woodlands

Lachlan Plains	Certhionyx variegatus	Pied Honeyeater	Vulnerable		Known	Sand Plain Mallee Woodlands
Lachlan Plains	Certhionyx variegatus	Pied Honeyeater	Vulnerable		Known	Semi-arid Sand Plain Woodlands

Lachlan Plains	Certhionyx variegatus	Pied Honeyeater	Vulnerable		Known	Inland Rocky Hill Woodlands
Lachlan Plains	Chalinolobus picatus	Little Pied Bat	Vulnerable		Known	Western Peneplain Woodlands
Lachlan Plains	Chalinolobus picatus	Little Pied Bat	Vulnerable		Known	Dune Mallee Woodlands
Lachlan Plains	Chalinolobus picatus	Little Pied Bat	Vulnerable		Known	Sand Plain Mallee Woodlands
Lachlan Plains	Chalinolobus picatus	Little Pied Bat	Vulnerable		Known	Semi-arid Sand Plain Woodlands
Lachlan Plains	Chalinolobus picatus	Little Pied Bat	Vulnerable		Known	Inland Rocky Hill Woodlands
Lachlan Plains	Chthonicola sagittata	Speckled Warbler	Vulnerable		Known	Western Peneplain Woodlands
Lachlan Plains	Chthonicola sagittata	Speckled Warbler	Vulnerable		Known	Sand Plain Mallee Woodlands
Lachlan Plains	Chthonicola sagittata	Speckled Warbler	Vulnerable		Known	Inland Rocky Hill Woodlands
Lachlan Plains	Cinclosoma castanotum	Chestnut Quail-thrush	Vulnerable		Known	Western Peneplain Woodlands
Lachlan Plains	Cinclosoma castanotum	Chestnut Quail-thrush	Vulnerable		Known	Dune Mallee Woodlands
Lachlan Plains	Cinclosoma castanotum	Chestnut Quail-thrush	Vulnerable		Known	Sand Plain Mallee Woodlands
Lachlan Plains	Cinclosoma castanotum	Chestnut Quail-thrush	Vulnerable		Known	Inland Rocky Hill Woodlands
Lachlan Plains	Circus assimilis	Spotted Harrier	Vulnerable		Known	Western Peneplain Woodlands

Lachlan Plains	Circus assimilis	Spotted Harrier	Vulnerable		Known	Sand Plain Mallee Woodlands
Lachlan Plains	Circus assimilis	Spotted Harrier	Vulnerable		Known	Semi-arid Sand Plain Woodlands
Lachlan Plains	Circus assimilis	Spotted Harrier	Vulnerable		Known	Inland Rocky Hill Woodlands
Lachlan Plains	Climacteris affinis - endangered population	White-browed Treecreeper population in Carrathool local government area south of the Lachlan River and Griffith local government area	Endangered Population		Known	Western Peneplain Woodlands
Lachlan Plains	Climacteris affinis - endangered population	White-browed Treecreeper population in Carrathool local government area south of the Lachlan River and Griffith local government area	Endangered Population		Known	Semi-arid Sand Plain Woodlands
Lachlan Plains	Crinia sloanei	Sloane's Froglet	Vulnerable	Endangered	Known	Western Peneplain Woodlands
Lachlan Plains	Daphoenositta chrysoptera	Varied Sittella	Vulnerable		Known	Western Peneplain Woodlands
Lachlan Plains	Daphoenositta chrysoptera	Varied Sittella	Vulnerable		Known	Dune Mallee Woodlands
Lachlan Plains	Daphoenositta chrysoptera	Varied Sittella	Vulnerable		Known	Sand Plain Mallee Woodlands
Lachlan Plains	Daphoenositta chrysoptera	Varied Sittella	Vulnerable		Known	Semi-arid Sand Plain Woodlands
Lachlan Plains	Daphoenositta chrysoptera	Varied Sittella	Vulnerable		Known	Inland Rocky Hill Woodlands
Lachlan Plains	Diuris tricolor	Pine Donkey Orchid	Vulnerable		Known	Western Peneplain Woodlands

Lachlan Plains	Drymodes brunneopygia	Southern Scrub-robin	Vulnerable		Known	Dune Mallee Woodlands
Lachlan Plains	Drymodes brunneopygia	Southern Scrub-robin	Vulnerable		Known	Sand Plain Mallee Woodlands
Lachlan Plains	Drymodes brunneopygia	Southern Scrub-robin	Vulnerable		Known	Inland Rocky Hill Woodlands
Lachlan Plains	Falco hypoleucos	Grey Falcon	Endangered		Known	Western Peneplain Woodlands
Lachlan Plains	Falco hypoleucos	Grey Falcon	Endangered		Known	Dune Mallee Woodlands
Lachlan Plains	Falco hypoleucos	Grey Falcon	Endangered		Known	Sand Plain Mallee Woodlands
Lachlan Plains	Falco hypoleucos	Grey Falcon	Endangered		Known	Semi-arid Sand Plain Woodlands
Lachlan Plains	Falco hypoleucos	Grey Falcon	Endangered		Known	Inland Rocky Hill Woodlands
Lachlan Plains	Grantiella picta	Painted Honeyeater	Vulnerable	Vulnerable	Known	Western Peneplain Woodlands

Lachlan Plains	Grantiella picta	Painted Honeyeater	Vulnerable	Vulnerable	Known	Sand Plain Mallee Woodlands
Lachlan Plains	Grantiella picta	Painted Honeyeater	Vulnerable	Vulnerable	Known	Semi-arid Sand Plain Woodlands
Lachlan Plains	Grantiella picta	Painted Honeyeater	Vulnerable	Vulnerable	Known	Inland Rocky Hill Woodlands
Lachlan Plains	Grevillea ilicifolia subsp. ilicifolia	Holly-leaf Grevillea	Critically Endangered		Known	Dune Mallee Woodlands

Lachlan Plains	Grevillea ilicifolia subsp. ilicifolia	Holly-leaf Grevillea	Critically Endangered		Known	Sand Plain Mallee Woodlands
Lachlan Plains	Grevillea ilicifolia subsp. ilicifolia	Holly-leaf Grevillea	Critically Endangered		Known	Inland Rocky Hill Woodlands

Lachlan Plains	Grus rubicunda	Brolga	Vulnerable		Known	Western Penneplain Woodlands
Lachlan Plains	Haliaeetus leucogaster	White-bellied Sea-Eagle	Vulnerable		Known	Western Penneplain Woodlands
Lachlan Plains	Haliaeetus leucogaster	White-bellied Sea-Eagle	Vulnerable		Known	Dune Mallee Woodlands
Lachlan Plains	Haliaeetus leucogaster	White-bellied Sea-Eagle	Vulnerable		Known	Sand Plain Mallee Woodlands
Lachlan Plains	Haliaeetus leucogaster	White-bellied Sea-Eagle	Vulnerable		Known	Semi-arid Sand Plain Woodlands
Lachlan Plains	Haliaeetus leucogaster	White-bellied Sea-Eagle	Vulnerable		Known	Inland Rocky Hill Woodlands
Lachlan Plains	Hamirostra melanosternon	Black-breasted Buzzard	Vulnerable		Known	Western Penneplain Woodlands
Lachlan Plains	Hamirostra melanosternon	Black-breasted Buzzard	Vulnerable		Known	Dune Mallee Woodlands
Lachlan Plains	Hamirostra melanosternon	Black-breasted Buzzard	Vulnerable		Known	Sand Plain Mallee Woodlands

Lachlan Plains	Hamirostra melanosternon	Black-breasted Buzzard	Vulnerable		Known	Semi-arid Sand Plain Woodlands
Lachlan Plains	Hieraaetus morphnoides	Little Eagle	Vulnerable		Known	Western Penneplain Woodlands
Lachlan Plains	Hieraaetus morphnoides	Little Eagle	Vulnerable		Known	Dune Mallee Woodlands
Lachlan Plains	Hieraaetus morphnoides	Little Eagle	Vulnerable		Known	Sand Plain Mallee Woodlands

Lachlan Plains	Hieraaetus morphnoides	Little Eagle	Vulnerable		Known	Semi-arid Sand Plain Woodlands
Lachlan Plains	Hieraaetus morphnoides	Little Eagle	Vulnerable		Known	Inland Rocky Hill Woodlands

Lachlan Plains	Hylacola cautus	Shy Heathwren	Vulnerable		Known	Dune Mallee Woodlands
Lachlan Plains	Hylacola cautus	Shy Heathwren	Vulnerable		Known	Sand Plain Mallee Woodlands
Lachlan Plains	Hylacola cautus	Shy Heathwren	Vulnerable		Known	Inland Rocky Hill Woodlands
Lachlan Plains	Leipoa ocellata	Malleefowl	Endangered	Vulnerable	Known	Dune Mallee Woodlands
Lachlan Plains	Leipoa ocellata	Malleefowl	Endangered	Vulnerable	Known	Sand Plain Mallee Woodlands
Lachlan Plains	Leipoa ocellata	Malleefowl	Endangered	Vulnerable	Known	Inland Rocky Hill Woodlands
Lachlan Plains	Lepidium monoplacoides	Winged Peppergrass	Endangered	Endangered	Known	Western Penneplain Woodlands
Lachlan Plains	Lepidium monoplacoides	Winged Peppergrass	Endangered	Endangered	Known	Sand Plain Mallee Woodlands
Lachlan Plains	Lophochroa leadbeateri	Major Mitchell's Cockatoo	Vulnerable		Known	Western Penneplain Woodlands
Lachlan Plains	Lophochroa leadbeateri	Major Mitchell's Cockatoo	Vulnerable		Known	Dune Mallee Woodlands
Lachlan Plains	Lophochroa leadbeateri	Major Mitchell's Cockatoo	Vulnerable		Known	Sand Plain Mallee Woodlands
Lachlan Plains	Lophochroa leadbeateri	Major Mitchell's Cockatoo	Vulnerable		Known	Semi-arid Sand Plain Woodlands
Lachlan Plains	Lophochroa leadbeateri	Major Mitchell's Cockatoo	Vulnerable		Known	Inland Rocky Hill Woodlands
Lachlan Plains	Lophoictinia isura	Square-tailed Kite	Vulnerable		Known	Western Penneplain Woodlands
Lachlan Plains	Lophoictinia isura	Square-tailed Kite	Vulnerable		Known	Sand Plain Mallee Woodlands

Lachlan Plains	Lophoictinia isura	Square-tailed Kite	Vulnerable		Known	Semi-arid Sand Plain Woodlands
Lachlan Plains	Lophoictinia isura	Square-tailed Kite	Vulnerable		Known	Inland Rocky Hill Woodlands
Lachlan Plains	Melanodryas cucullata cucullata	Hooded Robin (south-eastern form)	Vulnerable		Known	Western Penepine Woodlands
Lachlan Plains	Melanodryas cucullata cucullata	Hooded Robin (south-eastern form)	Vulnerable		Known	Inland Rocky Hill Woodlands
Lachlan Plains	Melanodryas cucullata cucullata	Hooded Robin (south-eastern form)	Vulnerable		Known	Semi-arid Sand Plain Woodlands
Lachlan Plains	Melanodryas cucullata cucullata	Hooded Robin (south-eastern form)	Vulnerable		Known	Dune Mallee Woodlands
Lachlan Plains	Melanodryas cucullata cucullata	Hooded Robin (south-eastern form)	Vulnerable		Known	Sand Plain Mallee Woodlands
Lachlan Plains	Melithreptus gularis gularis	Black-chinned Honeyeater (eastern subspecies)	Vulnerable		Known	Western Penepine Woodlands
Lachlan Plains	Melithreptus gularis gularis	Black-chinned Honeyeater (eastern subspecies)	Vulnerable		Known	Inland Rocky Hill Woodlands

Lachlan Plains	Myall Woodland in the Darling Riverine Plains, Brigalow Belt South, Cobar Penepine, Murray-Darling Depression, Riverina and NSW South Western Slopes bioregions	Myall Woodland in the Darling Riverine Plains, Brigalow Belt South, Cobar Penepine, Murray-Darling Depression, Riverina and NSW South Western Slopes bioregions	Endangered Ecological Community	Endangered	Known	Western Penepine Woodlands
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Lachlan Plains	Neophema pulchella	Turquoise Parrot	Vulnerable		Known	Western Penepine Woodlands
Lachlan Plains	Neophema pulchella	Turquoise Parrot	Vulnerable		Known	Sand Plain Mallee Woodlands
Lachlan Plains	Neophema pulchella	Turquoise Parrot	Vulnerable		Known	Inland Rocky Hill Woodlands
Lachlan Plains	Ningau yvonneae	Southern Ningau	Vulnerable		Known	Dune Mallee Woodlands

Lachlan Plains	Ningai yvonneae	Southern Ningai	Vulnerable		Known	Sand Plain Mallee Woodlands
Lachlan Plains	Ninox connivens	Barking Owl	Vulnerable		Known	Western Peneplain Woodlands
Lachlan Plains	Ninox connivens	Barking Owl	Vulnerable		Known	Inland Rocky Hill Woodlands
Lachlan Plains	Nyctophilus corbeni	Corben's Long-eared Bat	Vulnerable	Vulnerable	Known	Western Peneplain Woodlands
Lachlan Plains	Nyctophilus corbeni	Corben's Long-eared Bat	Vulnerable	Vulnerable	Known	Inland Rocky Hill Woodlands
Lachlan Plains	Nyctophilus corbeni	Corben's Long-eared Bat	Vulnerable	Vulnerable	Known	Semi-arid Sand Plain Woodlands
Lachlan Plains	Nyctophilus corbeni	Corben's Long-eared Bat	Vulnerable	Vulnerable	Known	Dune Mallee Woodlands
Lachlan Plains	Nyctophilus corbeni	Corben's Long-eared Bat	Vulnerable	Vulnerable	Known	Sand Plain Mallee Woodlands
Lachlan Plains	Pachycephala inornata	Gilbert's Whistler	Vulnerable		Known	Western Peneplain Woodlands
Lachlan Plains	Pachycephala inornata	Gilbert's Whistler	Vulnerable		Known	Dune Mallee Woodlands
Lachlan Plains	Pachycephala inornata	Gilbert's Whistler	Vulnerable		Known	Sand Plain Mallee Woodlands

Lachlan Plains	Pachycephala inornata	Gilbert's Whistler	Vulnerable		Known	Semi-arid Sand Plain Woodlands
Lachlan Plains	Pachycephala inornata	Gilbert's Whistler	Vulnerable		Known	Inland Rocky Hill Woodlands
Lachlan Plains	Petroica phoenicea	Flame Robin	Vulnerable		Known	Inland Rocky Hill Woodlands
Lachlan Plains	Polytelis swainsonii	Superb Parrot	Vulnerable	Vulnerable	Known	Western Peneplain Woodlands
Lachlan Plains	Polytelis swainsonii	Superb Parrot	Vulnerable	Vulnerable	Known	Sand Plain Mallee Woodlands

Lachlan Plains	Polytelis swainsonii	Superb Parrot	Vulnerable	Vulnerable	Known	Inland Rocky Hill Woodlands
Lachlan Plains	Pomatostomus temporalis temporalis	Grey-crowned Babbler (eastern subspecies)	Vulnerable		Known	Western Peneplain Woodlands
Lachlan Plains	Pomatostomus temporalis temporalis	Grey-crowned Babbler (eastern subspecies)	Vulnerable		Known	Sand Plain Mallee Woodlands
Lachlan Plains	Pomatostomus temporalis temporalis	Grey-crowned Babbler (eastern subspecies)	Vulnerable		Known	Semi-arid Sand Plain Woodlands
Lachlan Plains	Pomatostomus temporalis temporalis	Grey-crowned Babbler (eastern subspecies)	Vulnerable		Known	Inland Rocky Hill Woodlands
Lachlan Plains	Saccolaimus flaviventris	Yellow-bellied Sheath-tail-bat	Vulnerable		Predicted	Western Peneplain Woodlands
Lachlan Plains	Saccolaimus flaviventris	Yellow-bellied Sheath-tail-bat	Vulnerable		Predicted	Sand Plain Mallee Woodlands
Lachlan Plains	Saccolaimus flaviventris	Yellow-bellied Sheath-tail-bat	Vulnerable		Predicted	Semi-arid Sand Plain Woodlands
Lachlan Plains	Saccolaimus flaviventris	Yellow-bellied Sheath-tail-bat	Vulnerable		Predicted	Inland Rocky Hill Woodlands
Lachlan Plains	Stagonopleura guttata	Diamond Firetail	Vulnerable		Known	Western Peneplain Woodlands

Lachlan Plains	Stagonopleura guttata	Diamond Firetail	Vulnerable		Known	Sand Plain Mallee Woodlands
Lachlan Plains	Stagonopleura guttata	Diamond Firetail	Vulnerable		Known	Semi-arid Sand Plain Woodlands
Lachlan Plains	Stagonopleura guttata	Diamond Firetail	Vulnerable		Known	Inland Rocky Hill Woodlands
Lachlan Plains	Swainsona sericea	Silky Swainson-pea	Vulnerable		Predicted	Western Penneplain Woodlands
Lachlan Plains	Swainsona sericea	Silky Swainson-pea	Vulnerable		Predicted	Inland Rocky Hill Woodlands
Lachlan Plains	Tiliqua occipitalis	Western Blue-tongued Lizard	Vulnerable		Known	Dune Mallee Woodlands

Lachlan Plains	Tiliqua occipitalis	Western Blue-tongued Lizard	Vulnerable		Known	Sand Plain Mallee Woodlands
Lachlan Plains	Tiliqua occipitalis	Western Blue-tongued Lizard	Vulnerable		Known	Semi-arid Sand Plain Woodlands
Lachlan Plains	Tyto novaehollandiae	Masked Owl	Vulnerable		Known	Western Penneplain Woodlands
Lachlan Plains	Tyto novaehollandiae	Masked Owl	Vulnerable		Known	Inland Rocky Hill Woodlands



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[SPECIES SIGHTINGS SEARCH](#)
[FLORA SURVEY](#)

You are here: [Home](#) > Species sightings search results

Search results

Which species or group?

☐ All entities
 ☐ Animals
 ☐ Plants
 ☐ Fungi
 ☐ Communities
 ☐ Threats
 ☒ Endangered populations
 ☐ Search for a species or group of species (e.g. birds)

No records found

Search criteria: Licensed Report of all Valid Records of Endangered Populations in selected area [North: -31.18 West: 146.66 East: 147.26 South: -31.53] returned 0 records for 0 species.
Report generated on 27/11/2019 11:06 AM.

APPENDIX C HERITAGE BACKGROUND SEARCHES

C.1 AHIMS SEARCH RESULTS



AHIMS Web Services (AWS) Search Result

Purchase Order/Reference : Yarren Hut SF

Client Service ID : 468015

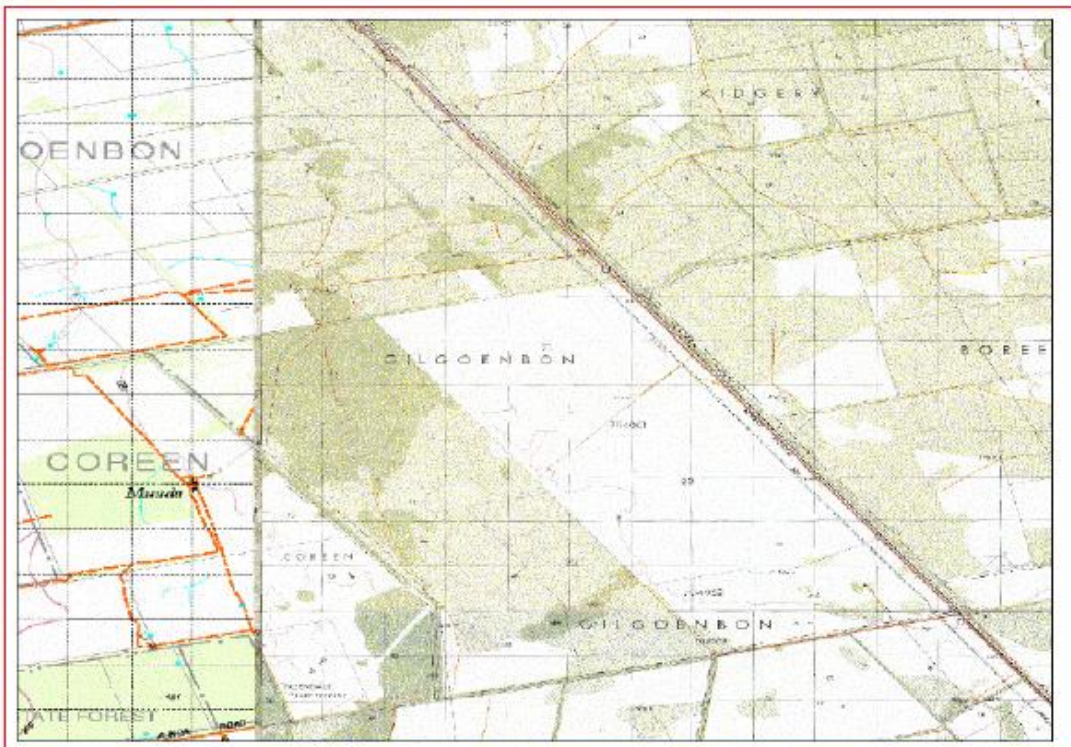
NGH Heritage - Fyshwick
17/27 Yallourn St
Fyshwick Australian Capital Territory 2609
Attention: Bridgette Poulton
Email: bridgette.p@ngHENvironmental.com.au

Date: 27 November 2019

Dear Sir or Madam:

AHIMS Web Service search for the following area at Lat. Long From : -31.5107, 146.9702 - Lat. Long To : -31.3934, 147.1259 with a Buffer of 1000 meters. Additional Info : Constraints analysis, conducted by Bridgette Poulton on 27 November 2019.

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 the Office of the Environment and Heritage 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. *

C.2 AUSTRALIAN HERITAGE DATABASE SEARCH RESULTS



Australian Government
Department of the Environment and Energy

Heritage

Australian Heritage Database



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Place Details

[new search](#) [pdf search](#)

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Ballast Chert Quarry, Barrier Hwy, Hermidale, NSW, Australia

Photographs



List

Register of the National Estate (Non-statutory archive)

Class

Natural

Legal Status

[Registered](#) (28/09/1982)

Place ID

507

Place File No

1/03/220/0002

Statement of Significance

The quarry offers one of the few well exposed outcrops in this area of the State, and displays an instructive and spectacular series of folded and faulted chert beds. Its location adjacent to the highway, ease of access, and pleasant aspect enhance its value as an educational/tourist stop. It is the type locality for the ballast beds, and is the only exposure of this unit which has yielded age diagnostic fossils. Thus it is of great significance in a region where age control is conspicuously lacking.

(The Commission is in the process of developing and/or upgrading official statements for places listed prior to 1991. The above data was mainly provided by the nominator and has not yet been revised by the Commission.)

Official Values Not Available

Description

The quarry is slightly elongated east-west, with the southern face up to about 10m in height. This face exhibits the most conspicuous folding and major faulting of the chert beds; elsewhere in the quarry the strata are cut by minor faults and folded into open flexures. The chert itself is a hard compact siliceous rock of grey, brown or red tones; iron and manganese staining is common. The chert is well bedded (individual beds average 10cm-30cm thickness) with prominent blocky jointing. Boudinage structures are present in strata on the eastern faces of the quarry.

History Not Available

Condition and Integrity

Presently the site is in good condition, subject only to natural erosion and weathering. Recent designation as a fossicking area could well detrimentally affect the deformation structures through over collection. A litter problem could also quickly develop.

Location

About 9ha, on the southern side of the Barrier Highway, about 10 km east of Canbelego and 27km west of Hermidale.

Bibliography

1. PART OF CANBELEGO 8134 1:100000 ORTHOPHOTOMAP 2. FOSSICKING AREA NO 52 GAZETTED NOTICE, BAKER, C.J. 1978. GEOLOGY OF THE COBAR 1:100000 SHEET. BRUNKER, R.L. 1969. COBAR 1:250000 GEOLOGICAL SERIES EXPL. NOTES. GEOL. SURV. N.S.W.

Report Produced: Mon Nov 25 11:08:50 2019

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Australian Heritage Database



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Place Details

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Belar Creek Myalls, Nyngan - Brewarrina Rd, Nyngan, NSW, Australia

Photographs

None

List

Register of the National Estate (Non-statutory archive)

Class

Natural

Legal Status

[Indicative Place](#)

Place ID

102265

Place File No

1/03/220/0005

Nominator's Statement of Significance

The place is one of the best examples of a myall community with an dense bladder saltbush understorey. The saltbush understorey has largely disappeared in the myall communities in western New South Wales.

The place demonstrates the typical structure of myall vegetation before wide scale introduction of domestic stock to the rangelands, when the two saltbushes , old man saltbush ATRIPLEX NUMMULARIA and bladder saltbush ATRIPLEX VESICARIA, were important forage species.

The place contains pasture cover which includes a large percentage of the native perennial grasses, box grass and curly windmill grass, which have been depleted in many of the native vegetation communities in the west of the State which would have originally had a similar pasture cover.

Official Values Not Available

Description

DESCRIPTION:

The Belar Creek Myalls are an example of the myall and saltbush community which once existed over a relatively large area of the riverine plains of western New South Wales.

The place is covered by a myall vegetation community with a dense saltbush understorey. Most myall communities now lack the chenopod (saltbush-type) understorey shrubs which are present here and are now grass and herb dominant in the understorey. The place has a history of conservative grazing for many years and is in better condition than many other examples of this vegetation community which have been altered to varying degrees by past land use.

The vegetation of the place is described as follows:

The vegetation consists of myall ACACIA PENDULA spaced 5 to 50m apart with occasional wilga GEIDERA PARVIFLORA, warrior bush APOPHYLLUM ANOMALUM and budda EREMOPHILA MITCHELLII with a shrub layer where the dominant species is bladder saltbush ATRIPLEX VESICARIA with very scattered desert cassia SENNA ARTEMISIOIDES ssp. EREMOPHILA and spiny saltbush RHAGODIA SPINESCENS.

Pasture species cover about 40% of the ground surface. The main species are box grass PASPALIDUM CONSTRUCTUM, curly windmill grass ENTEROPOGON ACICULARIS and blue crowfoot ERODIUM CRINITUM. Other species include annual phalaris PHALARIS sp., wild carrot DAUCUS GLOCHIDIATUS, grey sunray RHODANTHE CORYMBIFLORA, dark sago-weed PLANTAGO DRUMMONDII, bluebell WAHLBERGIA sp., quena SOLANUM ESURIALE, black roly-poly SCLEROLAENA QUINQUECUSPIS, parakeelya CALANDRINIA sp. and streaked poverty bush SCLEROLAENA TRICUSPIS.

History Not Available

Condition and Integrity

The place is in excellent condition. Some introduced plant species in the ground cover include: turnip weed RAPISTRUM RUGOSUM, burr medic MEDICAGO POLYMORPHA, small woolly burr medic MEDICAGO MINIMA, sowthistle SONCHUS OLERACEUS, maltese cocksbur CENTAUREA MELITENSIS and barley grass HORDEUM LEPODINUM.

Location

On the eastern side of the the Nyngan-Brewarrina Road, about 11.5km north-north-east of Nyngan and 0.5 km north of the bridge over Box Cowl.

Bibliography

Beadle, N.C.W. (1948) The Vegetation and Pastures of Western New South Wales with Special Reference to Soil Erosion. Government Printer, Sydney.

Cunningham, G.M. (pers. comm.) Notes taken from a preliminary manuscript of a publication on the vegetation communities of western New South Wales.

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Place Details

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Indigenous Place, Folkstone Station via Nyngan, NSW, Australia

Photographs	None
List	Register of the National Estate (Non-statutory archive)
Class	Indigenous
Legal Status	Indicative Place
Place ID	18976
Place File No	1/03/220/0004

Statement of Significance Not Available

Official Values Not Available

Description Not Available

History Not Available

Condition and Integrity Not Available

Location Not Available

Bibliography Not Available

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Indigenous Place, Nyngan, NSW, Australia

Photographs	None
List	Register of the National Estate (Non-statutory archive)
Class	Indigenous
Legal Status	Indicative Place
Place ID	13689
Place File No	1/03/220/0003

Statement of Significance Not Available

Official Values Not Available

Description Not Available

History Not Available

Condition and Integrity Not Available

Location Not Available

Bibliography Not Available

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Quanda Nature Reserve, Hermidale, NSW, Australia

Photographs	None
List	Register of the National Estate (Non-statutory archive)
Class	Natural
Legal Status	Registered (21/03/1978)
Place ID	506
Place File No	1/03/220/0001

Statement of Significance

Quanda Nature Reserve is representative of mallee environment and is valuable as the habitat for the mallee fowl (LEIPOA OCELLATA) now rare in New South Wales.

Official Values Not Available

Description

The reserve is located on relatively flat terrain. The soil in the reserve is very sandy with some rocky low rises supporting the green mallee (EUCALYPTUS VIRIDIS) and bimbie box (E. POPULNEA) communities.

History Not Available

Condition and Integrity

Natural condition; however, has had some previous grazing pressure.

Location

853.887ha located about 22km south of Hermidale and 50km south-west of Nyngan.

Bibliography Not Available

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C.3 NSW HERITAGE REGISTER SEARCH RESULTS

Section 1. Aboriginal Places listed under the National Parks and Wildlife Act.

Your search did not return any matching results.

Section 2. Items listed under the NSW Heritage Act.

Your search returned 2 records.

Item name ^	Address	Suburb	LGA	SHR
<u>Chinese Graves and Burner at Nyngan Cemetery</u>	Cemetery Road	Nyngan	Bogan	01783
<u>Nyngan Court House</u>	77-79 Cobar Street	Nyngan	Bogan	00797

Section 3. Items listed by Local Government and State Agencies.

Your search returned 11 records.

Item name ^	Address	Suburb	LGA	Information source
<u>Chinese Graves & Burner at Nyngan Cemetery</u>	Cemetery Road	Nyngan	Bogan	LGOV
<u>Gongolgon Weir</u>	Bogan River	Nyngan	Bogan	SGOV
<u>Nyngan Court House</u>	Cobar Street	Nyngan	Bogan	LGOV
<u>Nyngan Courthouse</u>	Cobar Street	Nyngan	Bogan	SGOV
<u>Nyngan Railway Precinct</u>	Pangee Street	Nyngan	Bogan	SGOV
<u>Nyngan Railway Station</u>	Pangee Street	Nyngan	Bogan	GAZ
<u>Nyngan Railway Station - Administrative Office</u>	Pangee Street (part Of Nyngan Railway Station Group)	Nyngan	Bogan	LGOV
<u>Nyngan Railway Station Building</u>	Pangee Street	Nyngan	Bogan	LGOV
<u>Nyngan Railway Station Group</u>	Pangee Street	Nyngan	Bogan	LGOV
<u>Overhead footbridge & goods shed</u>	Pangee Street	Nyngan	Bogan	GAZ
<u>Railway Overhead Footbridge & Goods Shed</u>	Pangee Street (part Of Nyngan Railway Station Group)	Nyngan	Bogan	LGOV

There was a total of 13 records matching your search criteria.

APPENDIX D LAND USE BACKGROUND SEARCHES

D.1 NSW CONTAMINATED SITES REGISTER



Legislation and compliance

Your environmentReporting and incidentsLicensing and regulationWorking together

Contaminated land

Management of contaminated land

Consultants and site auditor scheme

Underground petroleum storage systems

Guidelines under the CLM Act

NEPM amendment

Further guidance

Record of notices

About the record

Search the record

Search tips

Disclaimer

List of NSW contaminated sites notified to EPA

Frequently asked questions

Forms

Other contamination issues

Contaminated Land Management Program

[Home](#) [Contaminated land](#) [Record of notices](#)

Search results

Your search for: LGA: Bogan Shire Council

did not find any records in our database.

If a site does not appear on the record it may still be affected by contamination. For example:

- Contamination may be present but the site has not been regulated by the EPA under the Contaminated Land Management Act 1997 or the Environmentally Hazardous Chemicals Act 1985.
- The EPA may be regulating contamination at the site through a licence or notice under the Protection of the Environment Operations Act 1997 (POEO Act).
- Contamination at the site may be being managed under the [planning process](#).

More information about particular sites may be available from:

- The [POEO public register](#)
- The appropriate planning authority; for example, on a planning certificate issued by the local council under [section 149 of the Environmental Planning and Assessment Act](#).

See [What's in the record and What's not in the record](#).

If you want to know whether a specific site has been the subject of notices issued by the EPA under the CLM Act, we suggest that you search by Local Government Area only and carefully review the sites that are listed. This public record provides information about sites regulated by the EPA under the Contaminated Land Management Act 1997, including sites currently and previously regulated under the Environmentally Hazardous Chemicals Act 1985. Your inquiry using the above search criteria has not matched any record of current or former regulation. You should consider searching again using different criteria. The fact that a site does not appear on the record does not necessarily mean that it is not affected by contamination. The site may have been notified to the EPA but not yet assessed, or contamination may be present but the site is not yet being regulated by the EPA. Further information about particular sites may be available from the appropriate planning authority, for example, on a planning certificate issued by the local council under section 149 of the Environmental Planning and Assessment Act. In addition the EPA may be regulating contamination at the site through a licence under the Protection of the Environment Operations Act 1997. You may wish to search the [POEO public register](#)

Search AgainRefine Search

Search TIP

To search for a specific site, search by LGA (local government area) and carefully review all sites listed.

[... more search tips](#)

28 November 2019

D.2 GEOLOGICAL SURVEY OF NSW LETTER RE MINING TENURE



Bridgette Poulton
Environmental Consultant
PO Box 5464
Wagga Wagga NSW 2650

Our ref: DOC19/1035487

Emailed: bridgette.p@nghconsulting.com.au

27 November 2019

Dear Ms Poulton

Subject: Yarran Hut Solar Farm – Preliminary land use compatibility test

Thank you for your email of 22 November 2019. This is a response from the NSW Department of Planning, Industry & Environment – Division of Resources & Geoscience.

The Division has identified the following current mineral, coal or petroleum titles over the site that require consultation:

EL8631:

Ochre Resources Pty Limited
GPO Box 2815
West Perth 6001 WA

EL8730:

Australian Consolidated Gold Holdings Pty Ltd
PO Box 334
Bermagui NSW 2546

The area is prospective for nickel-cobalt, and copper-gold deposits.

The Division does not identify any operating mines or extractive industry for consideration.

Queries regarding the above information, and future requests for advice in relation to this matter, should be directed to the Division of Resources & Geoscience - Land Use team at landuse.minerals@geoscience.nsw.gov.au.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Andrew Helman'.

Andrew Helman
Senior Geoscientist – Land Use Assessment
Geological Survey of NSW, Division of Resources & Geoscience

D.3 LETTERS TO EXPLORATION LICENCE HOLDERS



BayWa r.e. Projects Australia Pty Ltd | Level 2, 79-81 Coppin St, Richmond, Victoria 3121

Australian Consolidated Gold Holdings Pty Ltd
PO Box 334
Bermagui
NSW 2546

11 December 2019

Proposed Yarren Hut Solar Farm

We write to inform you of our proposal to develop a solar farm approximately 17 km north west of Nyngan, New South Wales on land for which your company has a mining exploration license (EL8730). This letter will introduce you to our proposal.

About BayWa r.e.

BayWa r.e. began operations in Australia in 2017 through the acquisition of Future Energy Pty Ltd and its pipeline of wind farm projects. Future Energy was established in 2004 to develop, construct, own and operate renewable energy projects throughout Australia. BayWa r.e. has various projects under operation in Australia which include 2 wind and 3 solar projects with capacities ranging from 7.2 MW to 100 MW.

About the Solar Farm

The location of the proposed Yarren Hut Solar Farm is approximately 17 km north-west of Nyngan, NSW along the Mitchell highway on ~92 ha of Lot 21 DP 704061. A map of the site is shown below:

Yarren Hut Solar Farm

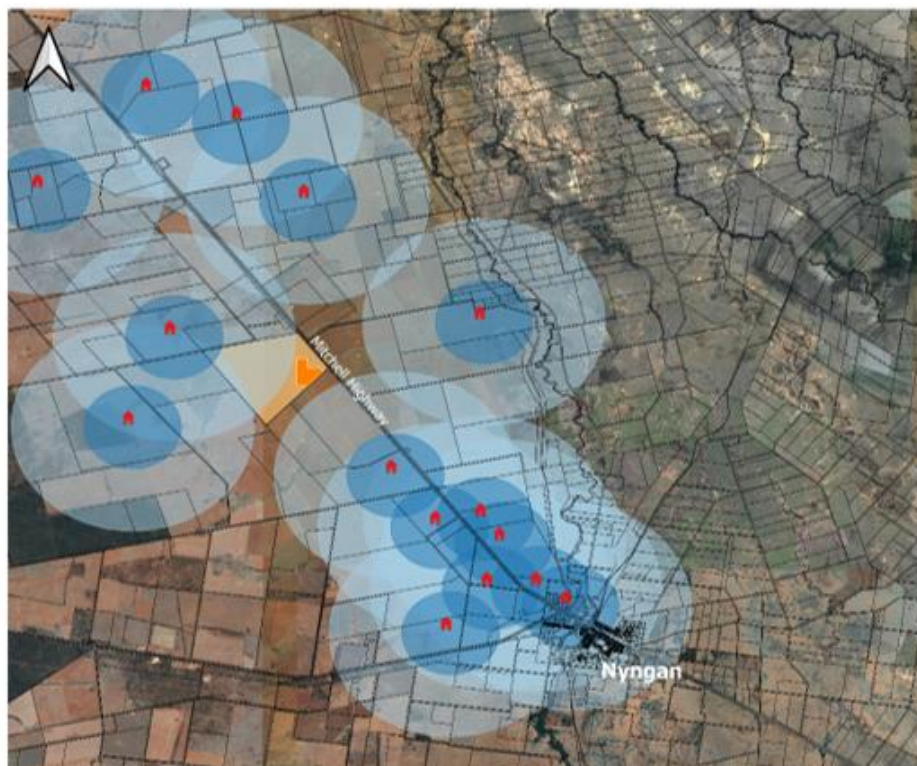
-  Development footprint
-  Lot 21 DP 704061
-  Dwellings / buildings
-  2 km buffer
-  5 km buffer



0 2.5 5 km



Date: 14 November 2019



The solar farm will consist of a solar tracking system and have a total capacity of approximately twenty-eight megawatts (28 MW AC), and it will connect into the local 66 kV electrical network. The facility will produce enough power for about 9,000 homes, making their greenhouse benefit equivalent to planting approximately 530,000 trees. The estimated energy and greenhouse benefits of the Yarren Hut Solar Farm are shown in the table below.

Energy output per year	76,000 MWh
Greenhouse gas abatement per year	53,000 Tons of CO ₂
Equivalent number of households supplied	~9,000
Equivalent number of cars taken off the road	~11,000
Equivalent number of trees planted	~530,000

This site was chosen for the following reasons:

- It receives a large amount of sunshine.
- There are large setbacks to nearby dwellings.
- There will be minimal impacts to flora and fauna.
- It is near the electrical grid.
- It offers easy access.

Connection to the Electricity Grid

The solar farm will not require any new power lines. Instead it will connect into the existing local electrical network. The solar farm cannot be any larger as the local electrical network has limited capacity.

Development Consent Process

Our Preliminary Environmental Assessment and Environmental Impact Statement for the Yarren Hut Solar Farm will be lodged with the Department of Planning, Industry and Environment (DPIE) in the coming months. The application will be assessed against the *Secretary's Environmental Assessment Requirements* and will cover the impact of the project on the following aspects:

- Flora and fauna.
- Cultural heritage.
- Visual impact.
- Stormwater and flood.
- Traffic.
- Dust and noise.

After submissions to the DPIE, these planning documents relating to the solar farm will be made available on the DPIE website as well as on our project website (www.yarrenhutsolarfarm.com.au).

Construction Process

Once a permit has been issued and financing completed, construction of the solar farm can begin and will take around six months. The construction process starts with construction of the access tracks and construction pads. This is followed by installation of the tracking system structure, solar panels, underground cabling and grid connection infrastructure (sub-station and switching station). The final stage is the commissioning of the solar farm and connection into the local electricity grid so that the export of energy can begin.

For more information about BayWa r.e. and specific projects please visit our website at www.baywa-re.com.au or call us on +61 3 9429 5629, or email us at info@baywa-re.com.au.

Yours faithfully,

Kevin Heydt

General Manager - NSW