BISON ENERGY 株式会社

SCOPING REPORT

WALLA WALLA SOLAR FARM

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NGH Environmental Pty Ltd (ACN: 124 444 622. ABN: 31 124 444 622)

www.nghenvironmental.com.au e ngh@nghenvironmental.com.au

suite 1, 39 fitzmaurice st (po box 5464)
wagga wagga nsw 2650
t 02 6971 9696

unit 18, level 3, 21 mary st
surry hills nsw 2010 australia
t (02) 8202 8333

suite 4, level 5, 87 wickham terrace
spring hill qld 4000
t 07 3129 7633

2/54 hudson st
hamilton nsw 2303
t (02) 4929 2301

unit 8, 27 yallourn st (po box 62)
fyshwick act 2609
t (02) 6280 5053

89-91 auckland st (po box 470)
bega nsw 2550
(02) 6492 8333

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ABBREVIATIONS AND ACRONYMS

ABS	Australian Bureau of Statistics
AHIMS	Aboriginal Heritage Information Management System
BC Act	*Biodiversity Conservation Act* (NSW)
CCP	Community Consultation Plan
CEMP	Construction Environmental Management Plan
Cwth	Commonwealth
DPE	Department of Planning and Environment (NSW)
EEC	Endangered Ecological Community (listed under NSW BC Act)
EIS	Environmental Impact Statement
EPBC Act	*Environmental Protection and Biodiversity Conservation Act 1999* (Cwth)
EP&A Act	*Environmental Planning and Assessment Act 1979* (NSW)
ha	hectares
Heritage Act	*Heritage Act 1977* (NSW)
ISEPP	*State Environmental Planning Policy (Infrastructure) 2007 (NSW)*
km	kilometres
kV	kilovolt
LEP	Local Environment Plan
LGA	Local Government Area
m	metres
MNES	Matters of National Environmental Significance under the EPBC Act (*c.f.*)
MW	megawatts
NPW Act	*National Parks and Wildlife Act 1974* (NSW)
NSW	New South Wales
NV Act	*Native Vegetation Act 2003* (NSW)
OEH	Office of Environment and Heritage (NSW)
RET	Renewable Energy Target
RMS	Roads and Maritime Services
SEARs	Secretary's Environmental Assessment Requirements (issued by DPE)
SEPP	State Environmental Planning Policy (NSW)
SSD	State Significant Development
TEC	Threatened Ecological Community (listed under Commonwealth EPBC Act)

1 INTRODUCTION

1.1 SCOPE OF 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 and Environment (DPE) 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:

Proposed development: All works that comprise the proposed development 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 footprint that was surveyed.

Development footprint: The area of land which will potentially experience direct disturbance related to the proposed development (as defined above).

Bison Energy: The proponent.

1.2 PROPOSAL OVERVIEW

Bison Energy proposes to develop a solar farm at a property off Benambra Road at Walla Walla, New South Wales (the proposed development). The development site is approximately 4.3 km north-east of the town of Walla Walla and 9.2 km south-west of Culcairn. It is located within the Greater Hume Local Government Area (LGA).

The 300 megawatt (MW) solar farm would occupy around 614 hectares of rural land currently used for primary production (cropping and grazing). The proposal infrastructure includes solar arrays, trackers, modules, invertors, a substation, underground cabling, security fencing and a cable run to connect the solar farm to TransGrid's 330 kV line. The proponent does not intend to install a battery storage facility at this time but may consider adding one in the proposal in future years.

1.3 THE PROPONENT

Bison Energy is a Japan-based company with an Australian office established in Melbourne in 2017. Bison Energy's focus is on solar projects with 400 MW currently under development including the AC 105 MW, DC

126 MW Shepperton solar project. In addition to solar energy, Bison Energy has also expanded into biomass with 50 MW in preliminary development in Japan.

2 PROJECT DETAILS

2.1 DEVELOPMENT SITE

2.1.1 Site location

The development site is located within the Greater Hume Local Government Area (LGA). It is accessed primarily from Benambra Road, approximately 2.5 km north-west of the intersection with the Olympic Highway, with alternative access points off Schneiders Road. Benambra Road and Schneiders Road are both local roads managed and maintained by Greater Hume Shire Council. An existing quarry is located on Weeamera Road, off Benambra Road, and the intersection of Benambra Road and the Olympic Highway has already been upgraded to facilitate turning heavy vehicles.

The Olympic Highway is a major regional highway servicing the communities of the central western and south-eastern Riverina including the LGAs of Cowra, Hilltops, Cootamundra-Gundagai, Wagga Wagga, Greater Hume and Albury. The Olympic Highway is an important link between the towns in this productive region and connecting these areas with the national highway network. The region supports a diverse economy associated with agriculture, tourism, large commercial centres, residential facilities, health centres, rail road activities, energy generation (hydro, gas, solar), energy distribution, road freight and intermodal logistics.

Aerial imagery and a preliminary site inspection identified seven residential receivers situated within 2 km of the proposal. The closest dwelling is approximately 120 m to the west. The TransGrid Jindera to Wagga Wagga transmission line is located on the development site's western boundary (refer to Figure 5-3).

Walla Walla is the closest town to the proposal, approximately 4.3 km south-west of the proposal. Its population in 2016 was recorded as 836 persons (ABS 2016) and hosts a number of historic buildings, churches, a grain storage facility and a community sports ground. The closest services are located in the regional centre of Albury, around 32 km south of the proposal. The population for Albury's urban locality in June 2018 was recorded as 53,289 persons (Population Australia 2018). It supports supermarkets, post offices, service stations, accommodation, restaurants, medical services and recreation facilities.

The Murray River and Lake Hume are located approximately 36 km south and 20 km south-east, respectively, of the proposed. Lake Hume is one of the major water storage areas for the Murray River system and water discharged from the Snowy Mountains Hydro-electric Scheme is also used as a recreational facility. The Benambra National Park and Tabletop Nature Reserve are located approximately 9.5 km east and 13.7 km south-east, respectively, of the proposed.

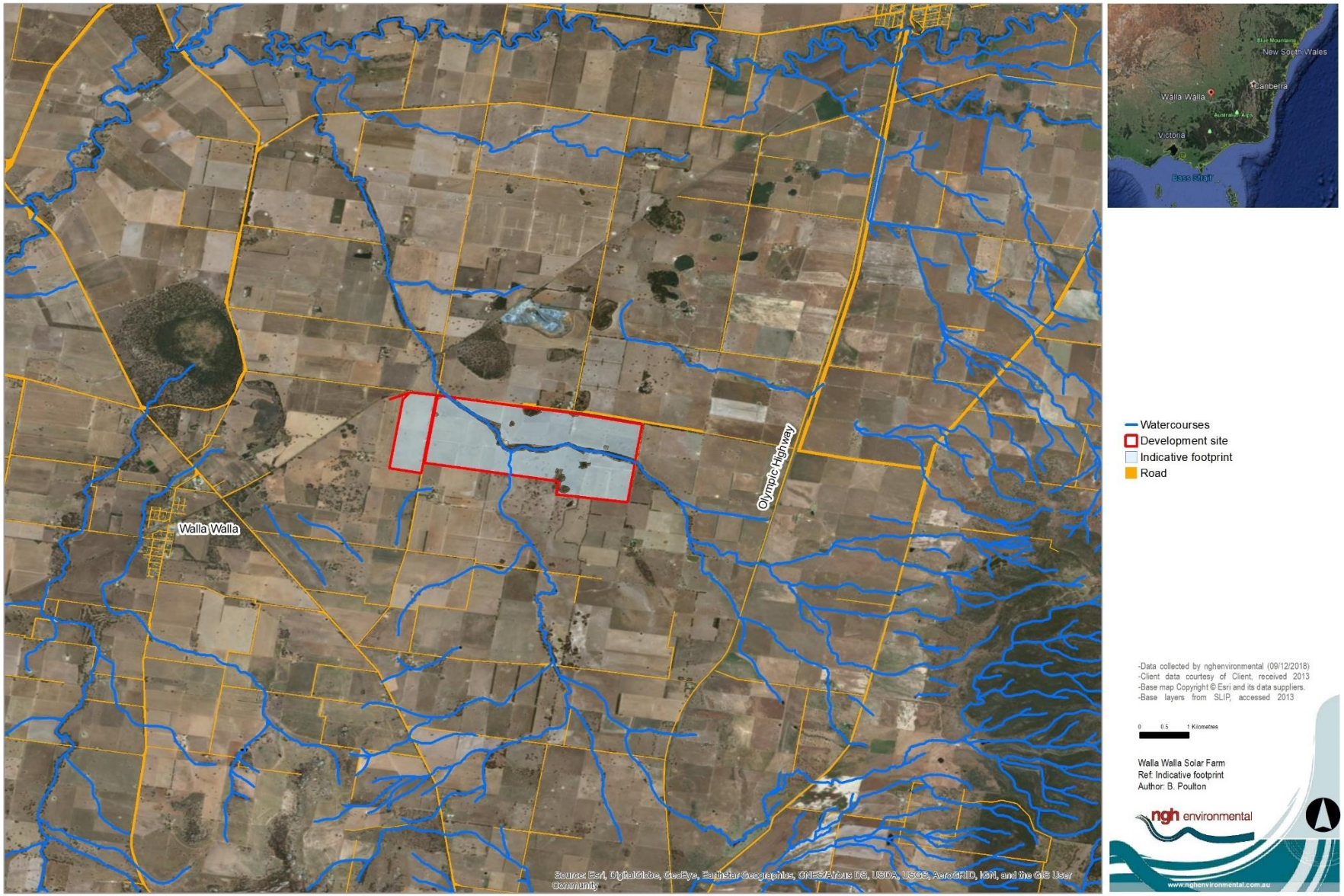

Figure 2-1 Location of the development site

2.1.2 Site description

The subject land is legally identified as the following Lots (Figure 2-3):

- Lots 16, 17, 20, 21, 87, 88, 89, 108, 109 118 of DP 753735
- Lot 1 DP 1069452

The proposed development would occupy approximately 614 hectares. There are no building improvements on the site. The land consists of large paddocks with predominantly exotic groundcovers. Back Creek runs through multiple Lots of DP 753735 and contains remnant native vegetation. Scattered trees are located primarily within Lots 20, 21, 88 and 109 of DP 753735, and also along the northern boundary of the development site along Benambra Road and more sparsely through the remainder of the site.

Lot 1 DP 1069452 is currently undergoing subdivision, to create Lot 22, as the proponents only intend to lease part of this land. The western boundary of Lot 22 will be alongside the transmission line. The 30 m transmission line easement is excluded from the lease area.

2.1.3 Site suitability and justification

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

Figure 2-2 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 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.	The proposal does not have high visibility. The site does not have prominent or high ground positions or located within a valley with residences with 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 and other investigations carried out for the EIS, the indicative footprint would minimise environmental impacts overall. The final design would avoid the majority of native vegetation, habitat of threatened species or ecological communities. The proposal has retained the majority of native vegetation on site, with enough offset to allow for any shading impacts. 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	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

Preferable site conditions	Site justification
and any cumulative impacts of multiple developments.	Biophysical Strategic Agricultural Land (BSAL) as detailed further in section 5.2.5 on land capability. The development site is not located within 10 km of any other known existing of proposed solar farm.
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. Back Creek runs west-east and south-east through the subject land that eventually confluences with Billabong Creek and drains into the Murray River. The creek bed running west-east contains remnant riparian vegetation and will not be impacted by the proposal, whereas the south-east overland ephemeral flow path is currently cultivated as a crop and is not immediately apparent on the ground. The waterway is not key fish habitat.
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 no current mining or petroleum leases or applications relevant to the development site.
Crown Lands – if any part of the project or associated transmission or distribution infrastructure will cross Crown Lands, it may be subject to legislative requirements that restrict access to the land.	The development site comprises privately owned farm land, which will be leased for the life of the proposal.

Figure 2-3 Development site lot boundaries and profile

2.2 PROPOSAL DESCRIPTION

2.2.1 Proposed infrastructure

The proposal involves the construction of a ground-mounted photovoltaic solar farm which would generate approximately 300 MW alternating current (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, the Preliminary Environmental Assessment and the Environmental Impact Assessment when prepared. The Environmental Impact Statement (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 780,000 PV solar panels).
- Inverters, a transformer and electrical conduits.
- On site substation.
- Site office, site compound, vehicle parking areas, access tracks and perimeter fencing.
- 330 kV electrical transmission line to connect the proposal to the existing transmission line.

The site is proposed to be accessed from Benambra Road. The proposal would require subdivision of DP 1069452 for the creation of Lot 22, that portion of land to be leased. A substation and connection to the 330 kV Jindera to Wagga Wagga transmission line would be located at some point along the western boundary of the development site as shown in Figure 2-3.

The proposed infrastructure footprint is shown in Figure 2-4. 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 460.31 ha 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.

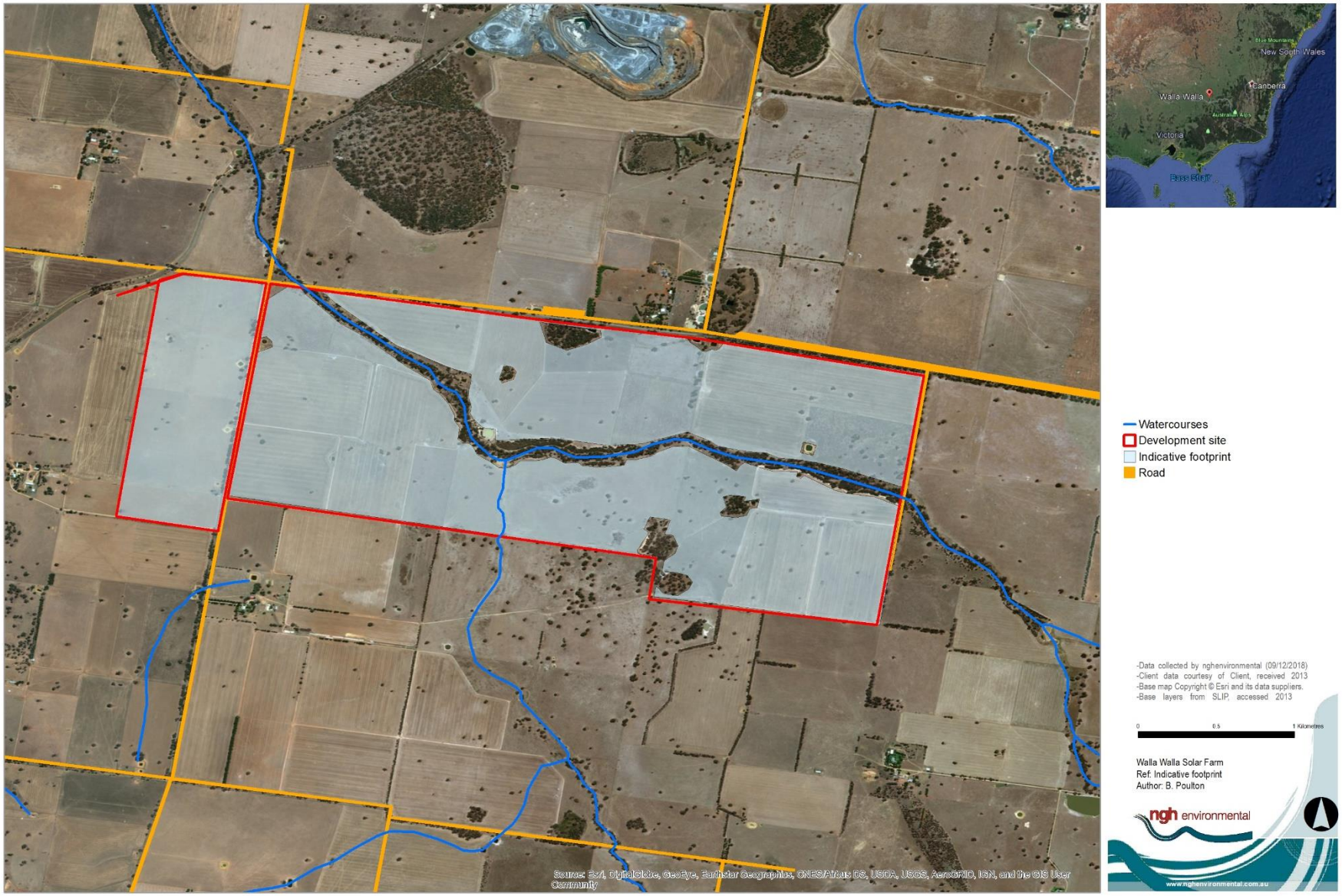

Figure 2-4 Proposed development infrastructure footprint

2.2.2 Construction

The construction phase of the proposal is expected to take 12 to 18 months.

2.2.3 Operation and decommissioning

The proposal is expected to operate for around 30 years. 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.

2.2.4 Subdivision

The subject land will be leased from two private landowners. 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* (formerly s.327AA *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. When the lease affects the whole lot in a current plan, the body of the lease identifies the area by lot and DP number with a subdivision not required.

As part of Lot 1 DP 1069452 will be leased, subdivision for the purpose of the internal substation and solar infrastructure will be required. The proponents have already been provided with a new lot number 22/1069452 for the portion of the land to be leased.

Any easement for a transmission line may be created by means of an appropriate dealing registered in the NSW Land Registry Service or by the inclusion of a Section 88B instrument lodged with a new deposited plan.

2.3 CAPITAL INVESTMENT

The capital investment value of the proposal is estimated at $450 million.

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

2.4 RATIONALE FOR THE PROPOSED DEVELOPMENT

2.4.1 Strategic justification

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.

2.4.2 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 and regulating inputs to the grid using an Energy Storage Facility.

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.

2.4.3 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 and has been previously cleared, making it an ideal location for a utility scale solar project.

The 330 kV Jindera to Wagga Wagga transmission line already exists along the western boundary of the development site, less than 10m from the proposed development footprint.

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 Walla Walla site to be exported to wider NSW.

2.4.4 Socio-economic benefits

Employment

The proposal would generate around 200 direct jobs during construction plus indirect supply chain jobs. In addition, it would employ approximately 1-2 full time equivalent staff during the operation and maintenance phase (expected to be 30 years).

The employment benefits for construction extend through the local supply chains to fuel supply, vehicle servicing, uniform suppliers, hotels/motels, B&Bs, 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 agriculture. The proposal would add to that and provide both local land holders 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).

2.4.5 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 whilst a solar farm is operating (e.g. grazing). Additionally, the degree of permanent land disturbance in the construction and operation of solar farms is small, and it is likely that agricultural activities that were occurring before the solar farm was constructed would be able to be continued once the solar farm is decommissioned and removed.

2.5 ALTERNATIVES CONSIDERED

2.5.1 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 grazing land).
- Low-rise terrain for cost-effective construction.
- High quality solar resource.
- Low density population and limited neighbouring properties.
- Suitable planning context.
- Acceptable flood risk.
- Road access.
- Access to the distribution network.
- High 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.

2.5.2 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 site.

2.5.3 Do nothing alternative

Not proceeding with the proposal would forego the benefits of the proposal, 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 emission.
- 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 any potential impact, however the likelihood of significant negative impacts is low. It is considered that the benefit of the proposed solar farm outweighs any potential impact whilst contributing to ecologically sustainable development.

3 PLANNING CONTEXT

3.1 COMMONWEALTH LEGISLATION

3.1.1 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 resource, in relation to coal seam gas development and large coal mining development.

Approval by the Commonwealth Environment Minister 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 7 November 2018) identified three Endangered Ecological Communities, seven threatened flora species and 18 threatened fauna species that have the potential to occur at the site. The search also identified five wetlands of international importance, located greater than 200 km upstream, and two Ramsar listed wetlands within 100 km. A summary of the EPBC Act search report is provided in section 5.2.1

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

A summary of the EPBC Act search report is provided in Table 3-1.

Table 3-1 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)	7
Threatened Ecological Communities	3
Threatened Species	24
Migratory Species	11
Listed Marine Species	18

Protected Matter	*Entities within the search area*
Commonwealth land	0
Commonwealth Heritage places	0
Critical habitats	0
Commonwealth reserves (terrestrial)	0
State reserves	0
Regional Forest Agreements	0
Invasive species	31
Nationally Important Wetlands	1

3.1.2 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 that 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 National Native Title Tribunal website (NNTT, 2018) did not indicate any native title claims, land use agreements, applications or determinations within the development site.

3.2 STATE LEGISLATION

3.2.1 Environmental Planning and Assessment Act 1979

The *Environmental Planning and Assessment Act 1979* (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 Act.

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

3.2.2 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 Act is to maintain a

healthy, productive and resilient environment in consideration of the principles of ecologically sustainable development.

The proposed development is considered State Significant Development (discussed in relation to the State Environmental Planning Policy (State and Regional Development) 2011 below) and would require biodiversity assessment under Section 7.9 of the BC Act. According to the provisions of the 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 report.

3.2.3 Conveyancing Act 1919

The purpose of the *Conveyancing Act* 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, or creation of an easement may be required for the purpose of the transmission line and substation infrastructure.

3.2.4 Crown Lands Act 1989

The objects of this Act are to ensure that Crown land is managed for the benefit of the people of New South Wales. Under Part 3 of the 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 with no developed infrastructure exist adjacent to the proposal.

3.2.5 Heritage Act 1977

This Act aims to conserve heritage values. The 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 Local Environmental Plan (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 1977* would not be required for a State Significant Development. The proposal is unlikely to directly or indirectly affect any items of heritage significance (refer to section 5).

3.2.6 National Parks and Wildlife Act 1974

Under the *National Parks and Wildlife Act 1974*, 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 *National Parks and Wildlife Act 1974* would not be required for a State Significant Development.

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

3.2.7 Roads Act 1993

The *Roads Act 1993* (Roads Act) provides for the classification of roads and for the declaration of the Roads and Maritime Services (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.

3.2.8 Water Management Act

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 identifies during the EIS stage.

3.2.9 State Environmental Planning Policy No 55 – Remediation of Land

The State Environmental Planning Policy 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, 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 land is not on the register of Contaminated Sites notified to the NSW EPA. Further, the land is not on Greater Hume Shire Council's register of contaminated or potentially contaminated land. Historical aerial imagery indicates that the land has been utilised for agricultural activities (specifically cereal cropping and livestock grazing, which is a potentially contaminating land use according to the 'Managing Land Contamination Planning Guidelines' (Environment Protection Authority, 1998).

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

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

The State Environmental Planning Policy (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 'State Significant Development' 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, or

(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 'State Significant Development' (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 and Environment, or their delegate.

An Environment Impact Statement (EIS) is prepared in accordance with environmental assessment requirements issued by the Secretary of the Department of Planning and Environment (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 Preliminary Environmental Assessment report) is to be submitted with the request for the SEARs.

3.2.11 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.

3.2.12 State Environmental Planning Policy (Rural Lands) 2008

The State Environmental Planning Policy (Rural Lands) 2008 (the Rural Lands SEPP) rural planning principles, listed under clause 7, are:

(a) the promotion and protection of opportunities for current and potential productive and sustainable economic activities in rural areas,

(b) recognition of the importance of rural lands and agriculture and the changing nature of agriculture and of trends, demands and issues in agriculture in the area, region or State,

(c) recognition of the significance of rural land uses to the State and rural communities, including the social and economic benefits of rural land use and development,

(d) in planning for rural lands, to balance the social, economic and environmental interests of the community,

(e) the identification and protection of natural resources, having regard to maintaining biodiversity, the protection of native vegetation, the importance of water resources and avoiding constrained land,

(f) the provision of opportunities for rural lifestyle, settlement and housing that contribute to the social and economic welfare of rural communities,

(g) the consideration of impacts on services and infrastructure and appropriate location when providing for rural housing,

(h) ensuring consistency with any applicable regional strategy of the Department of Planning or any applicable local strategy endorsed by the Director-General.

It is considered that the proposal is consistent with the aims and planning principles of the Rural Lands SEPP. Part 4 of the Rural Lands SEPP relates to state significant agricultural land. Given the proposal area is not identified in Schedule 2, it is not identified as state significant agricultural land and Part 4 does not apply.

3.3 LOCAL PLANNING INSTRUMENT

3.3.1 Greater Hume Local Environmental Plan 2012

The proposal is in the Greater Hume Local Government Area (LGA) and is subject to the Greater Hume Local Environmental Plan 2012 (LEP 2012).

The overall aims of the LEP 2012 are:

a) To encourage sustainable economic growth and development in Greater Hume LGA,
b) To protect and retain productive agricultural land,
c) To protect, conserve and enhance natural assets,
d) To provide opportunities for the growth of townships.

The subject land is zoned RU1 Primary Production under the LEP 2012, as shown in Figure 3-1, with a prescribed minimum lot size of 100 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 2012, 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,
- Maintain the rural landscape character of the land.

The proposal would have negligible impact on primary industry production within the Greater Hume 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 which were occurring before the solar farm was constructed would be able to be continued once the solar farm is decommissioned and removed.

Clause 2.6 Subdivision – consent requirements

According to clause 2.6 of the LEP, consent is required for the subdivision of land. The proposed development would involve the subdivision of land (DP 1069452) to create an allotment for the substation that would connect the solar farm infrastructure to the wider electricity grid. 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 State Significant Development, the remainder of the development is also declared to be State Significant Development. In this case, the proposed subdivision is also taken to form part of the State Significant Development.

Clause 4.1 Minimum subdivision lot size

Clause 4.1(3) of the 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 100 hectares. As outlined above, it is proposed to subdivide the land for the purpose of creating a lot to contain the substation that would connect the solar farm infrastructure to the wider electricity grid. The proposed lot size for the substation is 92 ha. The proposed subdivision would be inconsistent with the provisions of clause 4.1 of the LEP.

As outlined above, clause 8(2) of the State and Regional Development SEPP provides that if one aspect of a proposal is State Significant Development, all aspects are to be considered under the SSD provisions. Further, clause 4.38(3) of the *Environmental Planning & Assessment Act 1979*, states that development consent for State Significant Development 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 LEP.

Greater Hume 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 purpose of this project.

Clause 4.2 Rural subdivision

The objective of clause 4.2 of the LEP is to provide flexibility in the application of standards for subdivision in rural zones to allow land owners 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 lot is 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 State Significant Development according to the State Environmental Planning Policy (State and Regional Development) 2011. According to clause 4.38(3) of the *Environmental Planning & Assessment Act 1979*, development consent for SSD may be granted despite part of the development being prohibited by the environmental planning instrument.

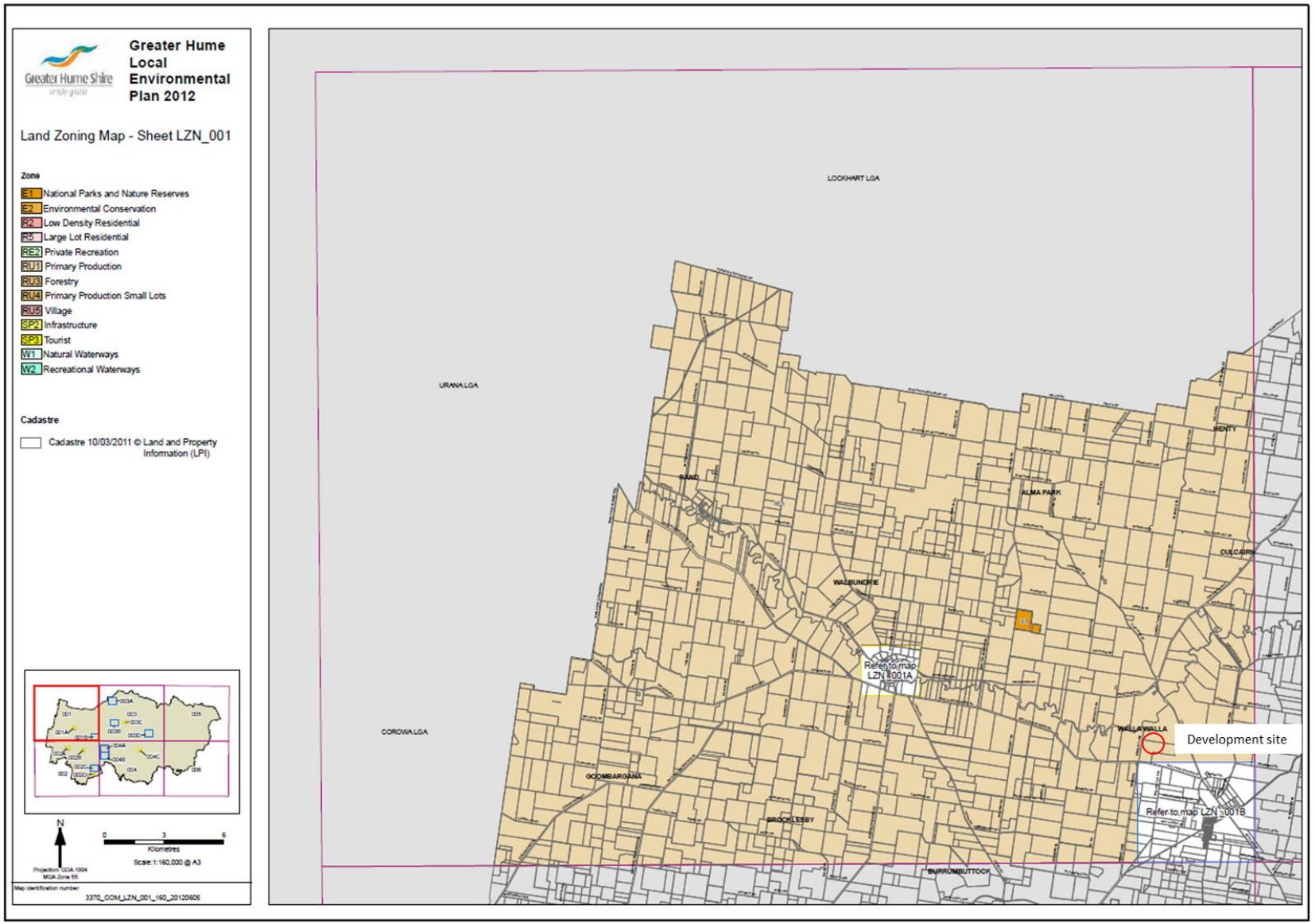

Figure 3-1 Greater Hume LEP zoning, location of proposal shown in red (source: Greater Hume LEP 2012)

4 CONSULTATION

Community and stakeholder consultation will be integral to the proposal. Consultation has begun with a wide range of relevant Local Government, State and Commonwealth authorities, local businesses, community groups, adjacent neighbours and other interested parties.

A Community Consultation Plan (CCP) has been prepared to provide a framework to engage with the community and stakeholders about the proposal and ensure opportunities to provide input into the assessment and development process are understood. Stakeholders were identified as those potentially being impacted by the solar farm proposal or having an interest in the proposal:

Table 4-1 Impacted or interested stakeholder groups

<table>
<tr><th>Stakeholder group</th><th>Defining characteristics</th></tr>
<tr><td>Adjacent Neighbours</td><td>Neighbours adjacent to the project and those who may be directly affected, for example: those with a view of infrastructure, or affected by noise or vibration from haulage route or construction activities.

There are seven dwellings within 2 km of the subject land, an additional 20 within 3 km and approximately 200 within 5 km of the subject land. The owner/occupants of the seven dwellings shown in Figure 5-3 is summarised Table 4-2.

Table 4-2 Adjacent neighbour ownership
<table>
<tr><td>Dwelling number</td><td>Ownership</td></tr>
<tr><td>1</td><td rowspan="2">Same owner</td></tr>
<tr><td>2</td></tr>
<tr><td>3</td><td>Adjacent neighbour</td></tr>
<tr><td>4</td><td>Solar farm landholder (lease agreement)</td></tr>
<tr><td>5</td><td>Solar farm landholder (lease agreement)</td></tr>
<tr><td>6</td><td rowspan="2">Same owner</td></tr>
<tr><td>7</td></tr>
</table>
</td></tr>
</table>

Stakeholder group	*Defining characteristics*
Near Neighbours	Being a major development within a small town, direct impacts may be of great interest to residents and businesses. Understanding the values and potential impacts to this group is highly important. It will assist the assessment process and development of appropriate mitigation strategies. Face to face consultation and direct feedback is required, and mitigation strategies may require changes to the project or the development of specific plans of management i.e. screening visual impact. The development site is located approximately 7 km from the Walla Walla townsite.
Adjacent and Local Businesses	Being a rural agricultural area, there are businesses located within 3 km of the site. This includes a quarry approximately 1.4 km north of the development site, and several mixed cropping and grazing farms. Some businesses may be directly or indirectly affected through view of infrastructure, noise or vibration from haulage route or construction activities, though similar activities are associated with the existing quarry. Positive impacts for surrounding towns would be generated during construction through demand for accommodation, catering, supply of tools, plant, fuel, services, labour etc. Local businesses would be given the opportunity to tender for the supply of services for the project, both during construction and operation.
Special interest groups	Special interest groups were identified specific to this proposal: • Holbrook Landcare Network
Representative bodies	Representatives of groups such as: • Albury Northside Chamber of Commerce. • Local, State and National members of Parliament. • Albury Local Aboriginal Land Council. • Greater Hume Visitors' Information Centre. • Greater Hume Shire Council. • TransGrid.
Media	Outlets to ensure a clear message is delivered: Local radio, television, newspapers, project website.
Broader community	The project is likely to be of interest to the broader local and regional community. The region's history has been rich in cropping and livestock farming. The proposed solar farm would provide an economic stimulus for the area during construction and would be a positive step forward in the renewable energy sector.

Stakeholder group	*Defining characteristics*
Greater Hume Shire	Consultation with the Greater Hume Shire Council and broader community has commenced. There is a perception amongst parts of the community that the land is classified high capability agricultural land. While broad scale direct impacts are unlikely, it is still likely that the community could perceive negative impacts to agricultural capacity and productivity. Local change in land use will be experienced and will require explanation and justification.
TransGrid	The proponent met with TransGrid on 9 January 2019 to discuss details of connecting the Proposal to the Jindera to Wagga Wagga transmission line. TransGrid confirmed that they are willing to accept electricity to the transmission line from the Proposal.

The CCP has set out consultation requirements with interested parties including adjacent neighbours, near neighbours, local businesses, any special interest groups and representative bodies. The plan also includes strategies for consultation with the local community and the broader community within the region. This includes:

- Face to face meetings with neighbours, local business, interested stakeholders etc.
- Community participation.
- Phone calls.
- Feedback forms.
- An avenue to receive information and provide specific feedback.
- Newsletter and/or factsheet drops.

The CCP 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.

Consultation to date

To date, the following activities, consistent with the CCP, have been undertaken:

- Greater Hume Shire Council was approached through a meeting to introduce the proposal on 16 March 2018.
- An email providing an update on the proposal was sent to Greater Hume Shire Council on 12 July 2018 and again on 17 January 2018.
- Adjacent neighbours were visited at their homes by the landholders to introduce and discuss the proposal at various dates in November 2018.
- Adjacent neighbours were contacted by Bison Energy via phone and follow up email correspondence throughout January 2019.
- Advertising and registration for the Aboriginal Cultural Heritage Assessment process will occur concurrently with the submission period for this Scoping Report.

5 PRELIMINARY ENVIRONMENTAL ASSESSMENT

5.1 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 and preliminary site inspection (involving flora and fauna surveys) to identify potential high-level constraints and major risks to the proposal. A preliminary constraints map is provided in Figure 5-2. 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 in section 5.2. 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 5.3.

The following environmental risks are considered to be key aspects:

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

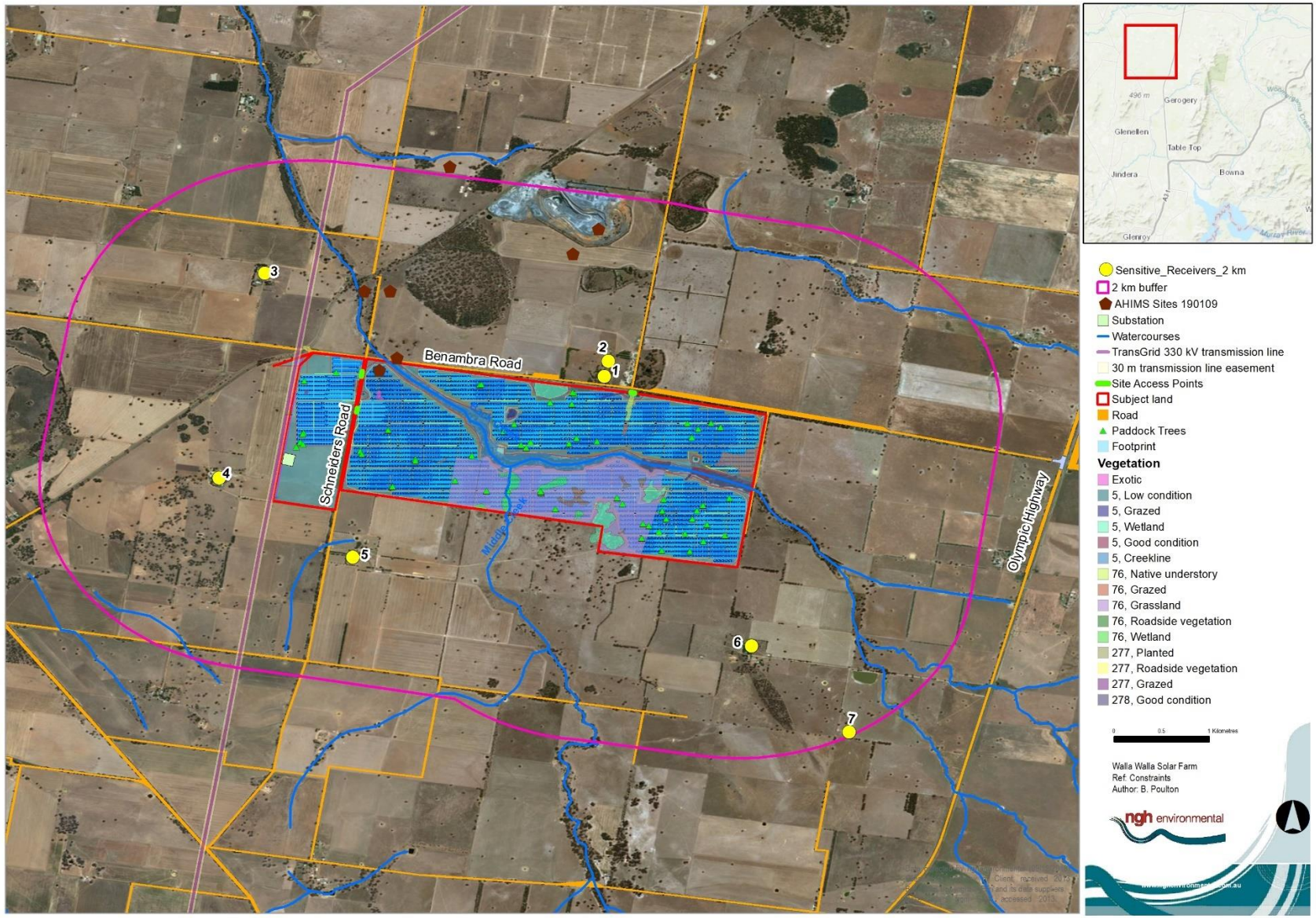

Figure 5-1 Preliminary constraints

5.2 ASSESSMENT OF KEY ENVIRONMENTAL ISSUES

5.2.1 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:

- Threatened species and community listings under the BC Act and EPBC Act.
- 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 communities records in the IBRA Region NSW South Western Slopes and Lower Slopes Subregion.
- Office of Environment and Heritage (OEH) Vegetation Information System (VIS) Mapping.
- NSW Government's SEED (Sharing and Enabling Environmental Data) Mapping.
- Vegetation surveys conducted by ecologists.

Overview

The proposal area has been selected on the basis that it supports limited native vegetation. The land has been extensively farmed, including cropping and grazing over a long period of time.

The primary constraint is associated with remnant woodland vegetation throughout the proposal site, though the proposed development footprint avoids the majority of native vegetation within the development site. Further survey of the area is a requirement of the EIS, and a full assessment of the impact to potential habitat in these areas would be conducted.

Database searches

The EPBC Act Protected Matters Search undertaken on 7 November 2018 indicated three listed threatened ecological communities, which may or are likely to occur in the search area (Appendix A).

The EPBC Act search indicated seven threatened flora species and 18 threatened fauna species that are either known to occur or have potential to occur in the search area.

The NSW Bionet search undertaken on 7 November 2018 indicated 1 threatened flora species and 1 threatened fauna record for the search area including the Austral Pillwort and Bush Stone-Curlew. However, dates of the records are unavailable, meaning that recent habitat modifications affecting species presence are not taken into account. A range of other species were identified that could occur in the proposal area (Appendix A).

Vegetation mapping

An assessment was undertaken of existing vegetation mapping of the proposed development site. The vegetated section of Back Creek is identified as an area of outstanding biodiversity value under the BC Act, however this area of outstanding biodiversity value would not be impacted by the proposal and lies outside the development footprint.

The NSW Government's SEED mapping for the locality identified three native vegetation types within the development site as shown in Appendix A.

Site inspection

Field surveys were undertaken on 8 and 9 November 2018 for the purpose of constraints analysis and identifying native plant community types. An additional survey was undertaken between 13 to 15 November to conduct spring targeted surveys for threatened species. The results of the field survey are shown in Figure 5-2.

The development site has previously been cropped but is currently used for cattle grazing. The vegetation within the development site has been previously cleared, evidenced by remaining paddock trees, fallen trees and stumps. The groundcover is predominately exotic grasses and forbs with some natives, particularly Finger Rush (*Juncus subsecundus*), Windmill Grass (*Chloris truncata*) and Black Nineawn (*Enneapogan nigricans*). Exotics within the site include Flatweed (*Hypochaeris radicata*), Saffron Thistle (*Carthamus lanatus*), Barley Grass (*Hordeum* sp.) and Onion Grass (*Romulea rosea*).

Native scattered paddock trees remain across the site comprised of Grey Box (*Eucalyptus microcarpa*), Yellow Box (*Eucalyptus melliodora*), Blakely's Red Gum (*Eucalyptus blakelyi*) and River Red Gum (*Eucalyptus camaldulensis*). An absence of middle storey vegetation was noticeable across the development site.

Higher quality Grey Box woodland remains along the roadsides bordering the proposal area and along Back Creek. The road reserves bordering the northern boundary of the development site have a mix of native groundcovers, shrubs and over-storey canopy.

Twelve farm dams are located on site, all of which contained water at the time of the site survey. Six of these dams are in close proximity to remnant native vegetation including tall hollow bearing trees. These man-made dams could provide habitat for the Sloane's Froglet (*Crinia sloanei*) and Southern Bell Frog (*Litoria raniformis*). The Sloane's Froglet is typically associated with periodically inundated areas of grassland, woodland and disturbed habitats. The Southern Bell Frog is associated with swamps and billabongs along floodplains and river valleys. These areas would be further assessed for the presence of threatened species as part of the EIS.

The areas of remnant vegetation provide habitat and fauna movement corridors. Hollow bearing trees and a good condition over-storey could provide habitat for several threatened woodland birds and mammals such as the Superb Parrot (*Polytelis swainsonii*) and Koala (*Phascolarctos cinereus*). These areas of remnant vegetation would be further surveyed for fauna species during the preparation of the EIS.

Plant Community Types and Endangered Ecological Communities

Based on existing vegetation mapping and the initial site inspection, vegetation within the proposed development site was assigned to Plant Community Types (PCTs) in accordance with the Vegetation Information System Classification Database. PCTs were determined based on the presence of diagnostic species identified in the site survey. 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).

PCTs identified within the proposal site are:

- PCT 5 – River Red Gum herbaceous – grassy very tall open forest wetland on inner floodplains in the lower slopes sub-region of the NSW South Western Slopes Bioregion and the Eastern Riverina Bioregion.
- PCT 76 – Grey Box tall grassy woodland on alluvial loam and clay soils in the NSW South Western Slopes and Riverina Bioregions.

- PCT 277 – Blakely's Red Gum – Yellow Box grassy tall woodland of the NSW South Western Slopes Bioregion.
- PCT 278 – Riparian Blakely's Red Gum – box – sedge – grass tall open forest of the central NSW South Western Slopes Bioregion.

PCT 5 is not listed under the BC Act or the EPBC Act.

PCT 76 forms part of the Threatened Ecological Community *Inland Grey Box Woodland in the Riverina, NSW South Western Slopes, Cobar Peneplain, Nandewar and Brigalow Belt South Bioregions*. This community is listed as Endangered under the BC Act. Further investigation is required to determine whether the vegetation communities form part of the Endangered community – *Inland Grey Box Woodland in the Riverina, NSW South Western Slopes, Cobar Peneplain, Nandewar and Brigalow Belt South Bioregions* under the EPBC Act.

PCT 277 forms part of the Threatened Ecological Community *White Box Yellow Box Blakely's Red Gum Woodland*. This community is listed as Endangered under the BC Act. Further investigation is required to determine whether the vegetation communities form part of the Critically Endangered community – *White Box Yellow Box Blakely's Red Gum Woodland* under the EPBC Act.

PCT 278 forms part of the Threatened Ecological Community *White Box Yellow Box Blakely's Red Gum Woodland*. This community is listed as Endangered under the BC Act. Further investigation is required to determine whether the vegetation communities form part of the Critically Endangered community – *White Box Yellow Box Blakely's Red Gum Woodland* under the EPBC Act.

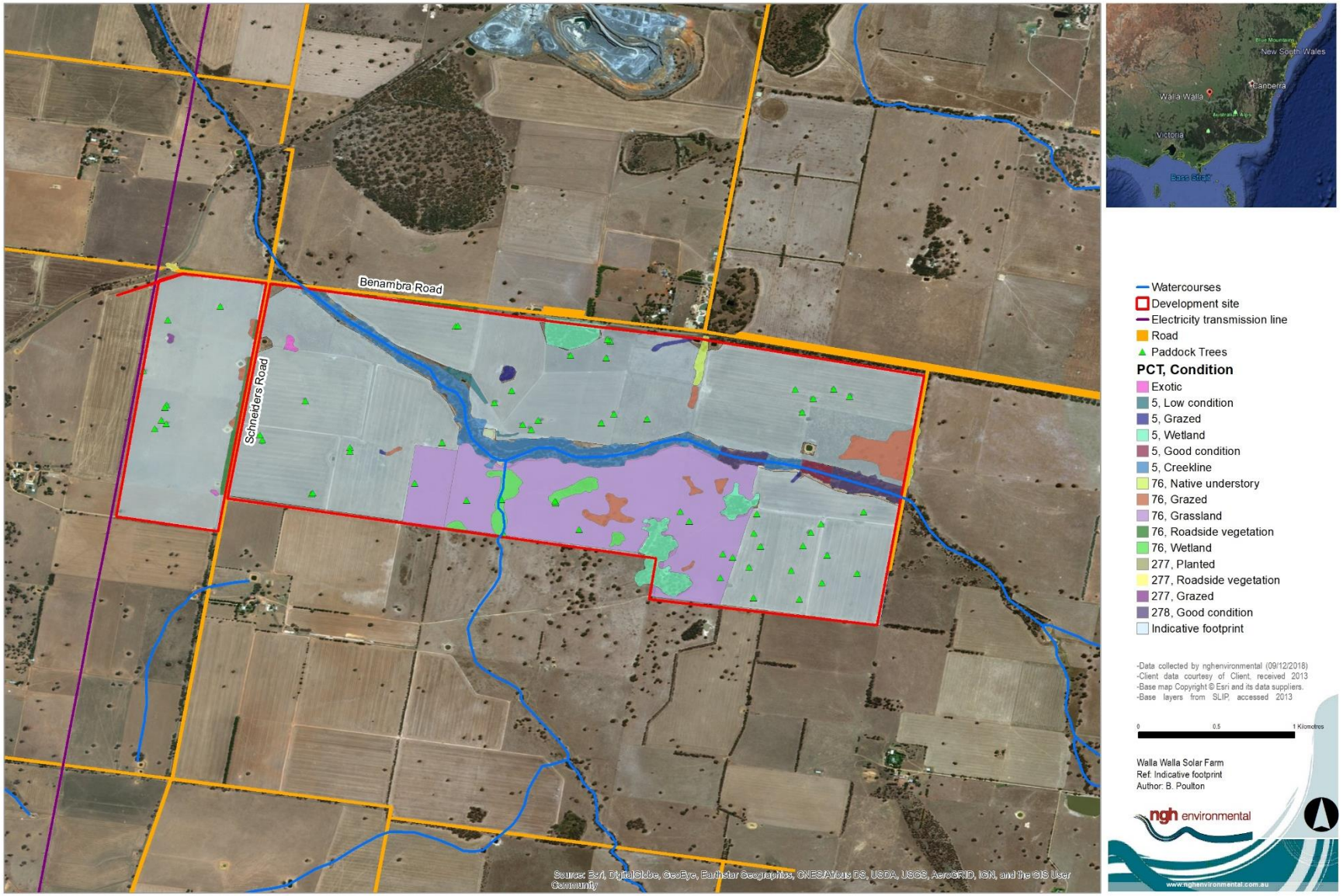

Figure 5-2 Preliminary biodiversity survey results

Threatened species

The proposal would be assessed through the Biodiversity Assessment Methodology (OEH 2017). Once full floristic plots have been undertaken in areas of native vegetation to be impacted, the Biodiversity Assessment Methodology 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 5-1 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 A.

Table 5-1 Preliminary BAM calculations

Common Name	Scientific Name	Survey Period
Fauna		
Bush Stone-curlew	*Burhinus grallarius*	All year
Sloane's Froglet	*Crinia sloanei*	July – August
Little Eagle	*Hieraetus morphnoides*	August – October
Squirrel Glider	*Petaurus norfolcensis*	All year
Swift Parrot	*Lathamus discolor*	May – August
Grey-headed Flying-fox	*Pteropus poliocephalus*	October – December
Square-tailed Kite	*Lophoictina isura*	September – January
Southern Myotis	*Myotis macropus*	November – March
Barking Owl	*Ninox connivens*	May – December
Koala	*Phascolarctos cinereus*	All year
Major Mitchell's Cockatoo	*Lophochroa leadbeateri*	September – December
Glossy Black Cockatoo	*Cercvartetus nanus*	All year
Eastern Pygmy-possum	*Cercartetus nanus*	October – March
Masked Owl	*Tyto novaehollandiae*	May – August
Regent Honeyeater	*Anthochaera phrygia*	September – December
Gang-gang Cockatoo	*Callocephalon fimbriatum*	October – January
Superb Parrot	*Polytelis swainsonii*	September – November
White-bellied Sea-Eagle	*Haliaeetus morphnoides*	July – December
Flora		

Common Name	Scientific Name	Survey Period
Ausfeld's Wattle	*Acacia ausfeldii*	All year
Spike-rush	*Eleocharis obicis*	All year
A spear-grass	*Austrostipa wakoolica*	September – December
Small Scurf-pea	*Cullen parvum*	December – February
Pine Donkey Orchid	*Diuris tricolor*	September – October
Slender Darling Pea	*Swainsona murrayana*	September – February
Small Purple-pea	*Swainsona recta*	September – November
Silky Swainson-pea	*Swainsona sericea*	September – February

Potential Impacts

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

- Clearing, removal and disturbance of vegetation, in particular paddock trees.
- Clearing of limited habitat (including disturbance of foraging habitat, sheltering and breeding habitat).
- Loss of connectivity and nesting sites.
- Introduction and spread of invasive species and weeds.
- Increased risk of competition with regenerating native plants.
- 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.

5.2.2 Aboriginal heritage

A search of the Aboriginal Heritage Information Management System (AHIMS) on 7 December 2018 identified 23 Aboriginal sites and no Aboriginal places within 2 km of the proposed development site (Appendix A), with none recorded on-site.

Landforms, vegetation and soils over much of the proposal site have been heavily disturbed by earthworks for dams and diversion berms, grazing, track formation and clearing for agriculture. 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 OEH.

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 Registered Aboriginal Parties (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).

5.2.3 Visual amenity and landscape character

The proposal has potential to result in visual impacts to neighbouring houses and road users adjacent to the site. 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 approximately six potential sensitive receivers within 1 km of the subject land (Figure 5-3). The flat to gently undulating 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. The EIS would also consider the potential for the solar farm to affect local landscape character. Additional consultation with specific affected residences 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.

Further assessment

A visual impact assessment including photo montages and community consultation would be prepared as part of the EIS to investigate visual impacts and mitigation options.

5.2.4 Noise

There are eight potential sensitive receivers within 2 km of the subject land (Figure 5-3) and approximately an additional 200 within 5 km, which encompasses the Walla Walla township. Noise impacts, for the most part, would only occur during construction (generated by construction vehicles and machinery), with minimal noise likely to be generated during operation. The proponent would adopt best practice mitigation measures during construction, such as standard work hours and regular vehicle and machinery maintenance to reduce the risk of adverse noise impacts.

During the operation of the solar farm, low level noise would be potentially produced by the solar tracking system, the substation and switchgear and any maintenance works undertaken at the site. Noise impacts during operation of the solar farm are expected to be very low.

Further assessment

A construction and operational noise assessment would be undertaken as part of the EIS to assess potential noise impacts. The assessment would be undertaken in accordance with the Interim Construction Noise Guideline (DECC 2009) and NSW Noise Policy for Industry (NSW EPA 2017).

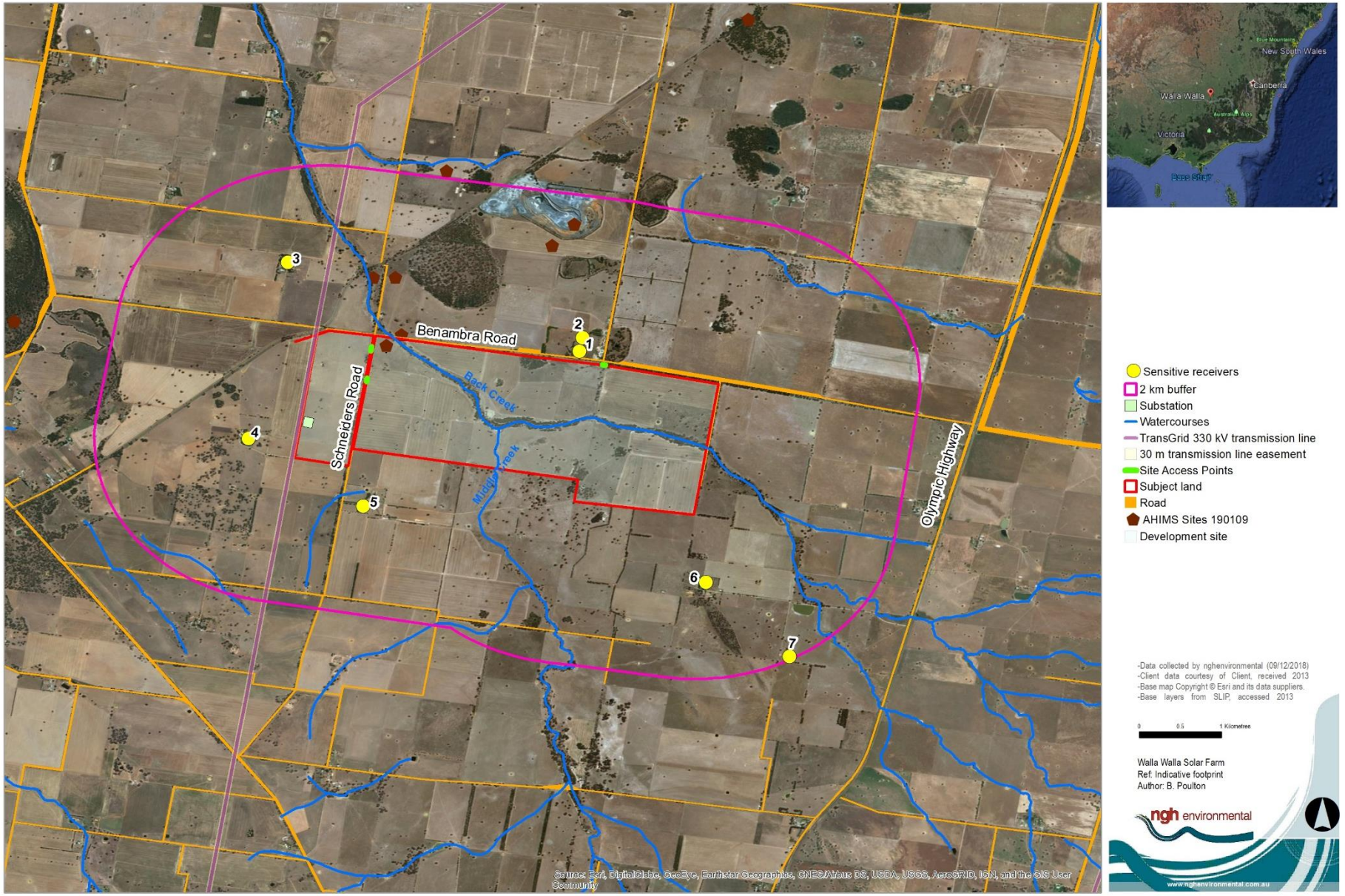

Figure 5-3 Sensitive receivers within 2 km of the proposed development site

5.2.5 Land use and resources

The region supports a diverse range of land uses. Regional industries include high and low intensity agricultural production, quarrying, transport, electricity generation, electricity distribution, freight and logistics, commercial and residential and railway activities.

The current land use on the development area is agriculture including cropping and grazing. The development area comprises 24 paddocks which have been previously cleared and grazed.

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.

The land is classified as Class 4 and 6 under the Land and Soil Capability Assessment Scheme (OEH 2012) and is described as suitable for grazing but not for cultivation (Figure 5-4). Class 4 land is considered to have moderate to severe limitations where pasture improvement relies on minimum tillage techniques and the productivity may be seasonally high but overall is low as a result of major environmental constraints.

There are no mineral titles and no mineral applications relevant to the proposed development site indicated in the Minview database (DPE 2018) (Appendix A).

Solar farms do not preclude agricultural activities and it is highly likely that limited production such as grazing could continue. This would be further explored in the EIS.

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

Further assessment

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

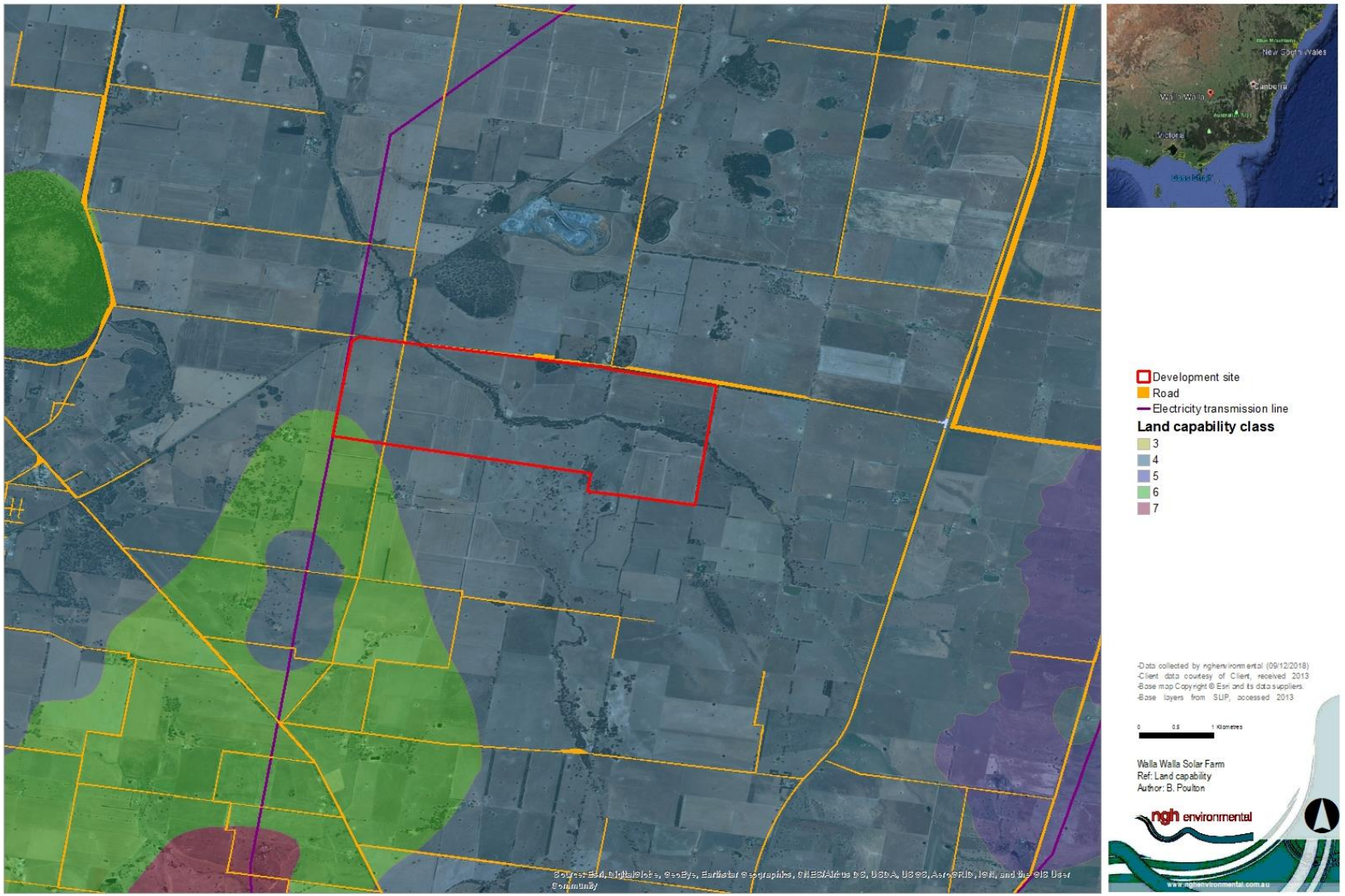

Figure 5-4 Land and soil capability of the proposed development site

5.2.6 Watercourses and hydrology

The proposal is located approximately 33 km north of the Murray River. Back Creek runs through the development site and flows into Billabong Creek, which in turn flows into the Murray River.

Eleven man-made dams exist within the development site, three within Lot 22 DP 1069452 and eight across multiple Lots of DP 753735. Four of the dams lie within close proximity to the vegetated Back Creek and fall outside the development footprint. A further two dams lie within isolated patches of vegetation and will also be retained. As such, any impact to threatened aquatic systems are likely to be minimal. Five farm dams within the development footprint would, however, be removed.

Water demand for the proposal would be relatively small, as construction of the solar farm is not water intensive. Approval will be sought from the Greater Hume Shire for use of a standpipe in Walla Walla for water extraction. No surface or groundwater extraction of water is required.

There are no aquatic groundwater dependant ecosystems (GDE) as shown in Figure 5-5. Terrestrial GDEs mapped within and in proximity to the development site are shown in (and Figure 5-6). 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 Greater Hume LEP.

Potential Impacts

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

- Removal of suitable aquatic habitat by filling in dams for threatened species.
- 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.
- Dewatering sediment laden water from excavations.

Further assessment

The EIS would assess the impacts to waterways during construction and operation and include appropriate mitigation measures as required.

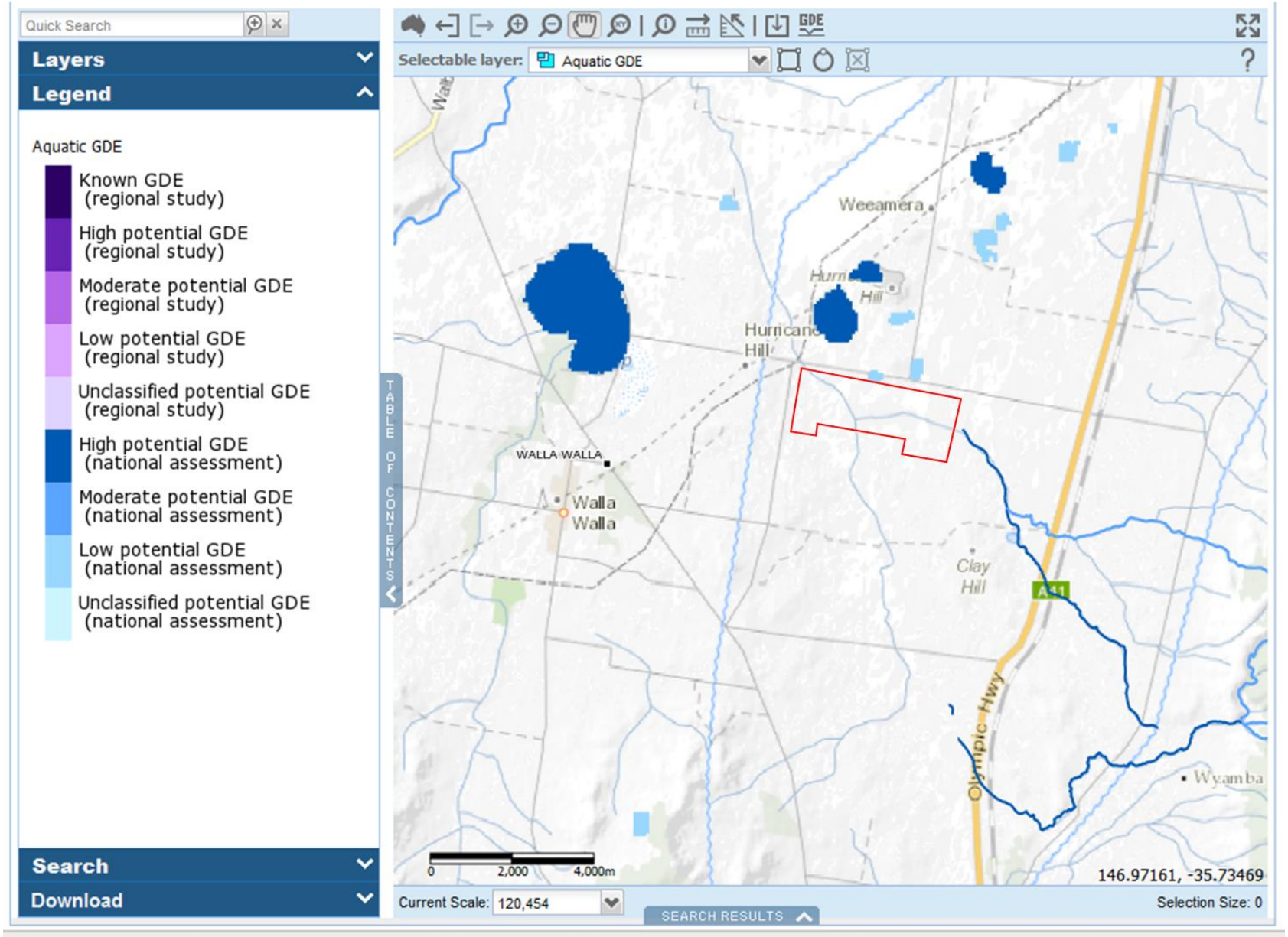

Figure 5-5 Aquatic Groundwater Dependant Ecosystems (source: BoM, 2018)

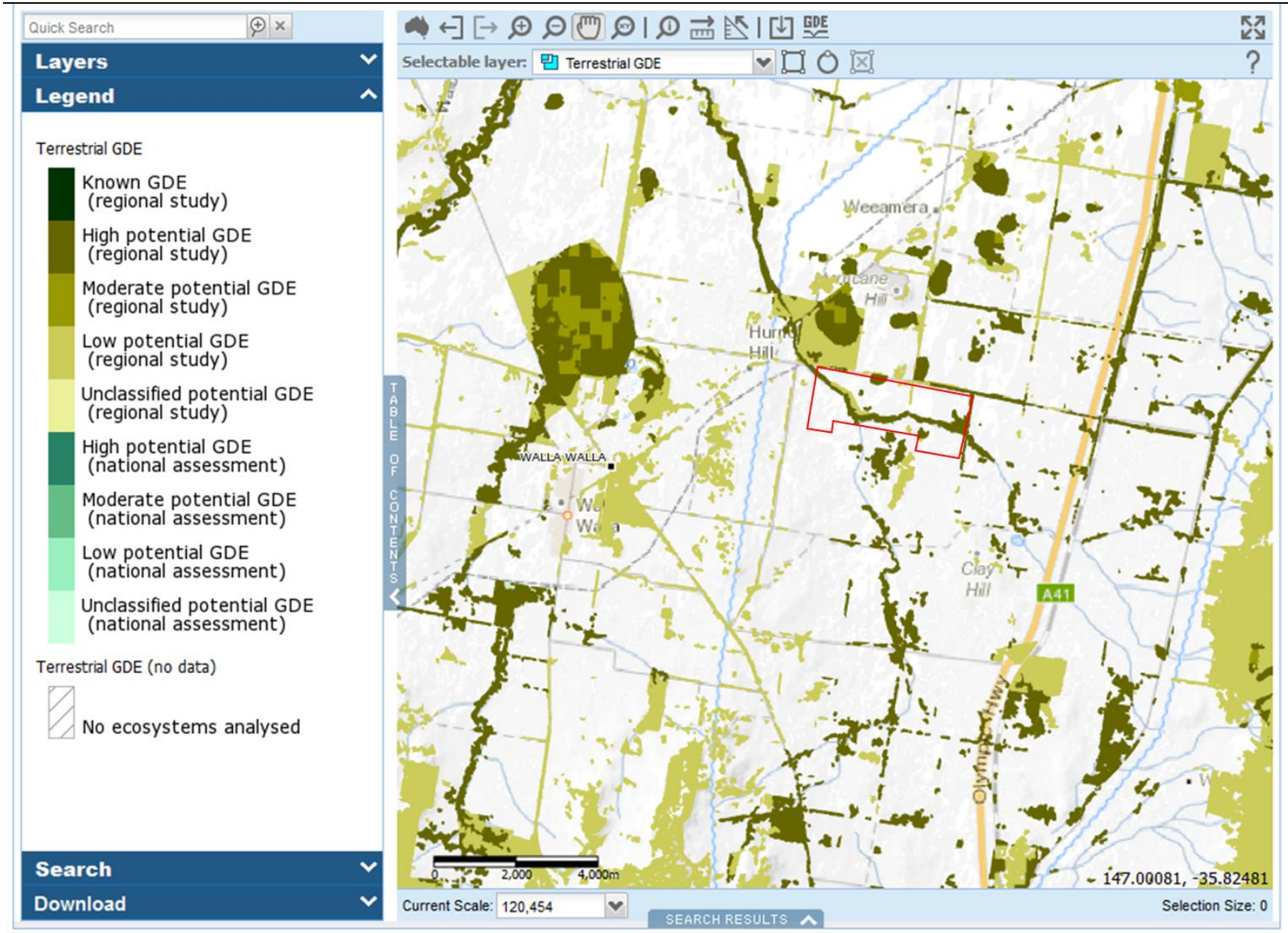

Figure 5-6 Terrestrial Groundwater Dependent Ecosystems (source: BoM, 2018)

5.3 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 in Table 5-2 The impacts and any required mitigation relating to these issues would be addressed at an appropriate level of detail in the EIS.

Table 5-2 Other environmental issues

Existing environment	Potential impacts	Management and mitigation
Soils		
An eSPADE soil profile (OEH 2017) along the western boundary of the development site records Haplic Brown Dermosol soils with low local relief. Surface condition is firm, well drained, and no erosion or salting is present. The soils can have a moderate to high erosion hazard depending on slope and groundcover.	Construction activities would include minor excavations and vegetation removal which have the potential to cause soil erosion and sedimentation and dust issues.	The design would provide all weather 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.
Postcolonial heritage		
A search of the NSW heritage Register on 7 November 2018 for the Greater Hume LGA identified 1 Aboriginal place under the National Parks and Wildlife Act, 4 items under the NSW Heritage Act, 61 items listed under the Greater Hume LEP and by state agencies, and 12 items on the Australian Heritage Database (Appendix A). The closest listed heritage item is the German Pioneer Wagon, approximately 5 km south-west from the western boundary of the proposed development site (Appendix A).	There is considered to be a low risk of impact to heritage items.	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.
Access and traffic		
Site access will be constructed off Benambra Road. 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 Greater Hume Shire.	Construction traffic could impact traffic along Benambra Road and Schneiders Road. Maintenance access tracks during operation would also be required across the development site. During construction, there may be impacts to residences along the access route associated with dust, vibration and noise.	Construction traffic impacts would be considered in the EIS. Consultation would be undertaken with the local council and local residents regarding the works that may affect roads or traffic. The design would also consider any requirements from the Roads and

Existing environment	Potential impacts	Management and mitigation
		Maritime Services (RMS), local council and other relevant stakeholders on access arrangements to the proposal site. The mitigation measures would require a Traffic Management Plan to be prepared.
Contamination		
The EPA contaminated land register identified no contaminated sites within the Greater Hume LGA (Appendix A). 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, 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 and vegetation removal. 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 ground cover vegetation under the panels.
Hazard and risk – electric and magnetic fields (EMF)		
Currently, there are no existing powerlines at the site. 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	The EMF levels of the proposed powerlines and substation would be assessed as part of the EIS.

Existing environment	Potential impacts	Management and mitigation
	neighbouring properties. The EMF that would be generated by the proposed 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. However, there is regeneration of native flora occurring across the site and woodland borders the northern and eastern boundaries. The property is not identified as bush fire prone land by the NSW Rural Fire Service.	There is a low 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 will also be addressed in the EIS.
Social and economic impacts		
The proposal is located within the Greater Hume LGA. In 2016, Greater Hume LGA had a population of 10,351. The main industry of employment in 2016 was Beef Cattle Farming. Workforce accommodation would be required for potentially 200 workers during peak construction periods. A large majority of these would already reside locally. For visiting workers, accommodation can be sought from Leeton, Griffith or other towns within a 100 km radius, including Narrandera, Ardlethan and Darlington Point.	The proposal would reduce the availability of agricultural land but would generate economic benefits during construction and operation, including local employment opportunities. Other socio-economic impacts would include traffic and access, noise, air quality and visual impacts.	The EIS would assess potential social and economic impacts of the proposal.
Utilities		
Electricity network TransGrid manages and operates the high voltage electricity transmission network in NSW. TransGrid has restrictions on development within powerline easements. TransGrid 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	The proposed works would involve works adjacent to these utilities. The solar farm will need to connect to the TransGrid electricity network.	The EIS would assess the proposal against the setback and approval requirements of TransGrid. The solar farm would be designed to comply with required setback, approval and consultation requirements of TransGrid.

Existing environment	Potential impacts	Management and mitigation
metres of the centre-line of a transmission line 132kV are prohibited although roads that cross the transmission line as a thoroughfare may be permitted.		
Waste management		
The proposal would generate several waste streams and utilise a variety of materials during the construction phase.	During construction, excavated material and green waste would be generated as waste. 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 recycled as fauna habitat where possible.
Cumulative impacts		
The proposed Walla Walla Solar Farm will contribute to overall infrastructure development in the region. A review of the State Significant Development register for the Greater Hume LGA was conducted on 08/11/2018. Two major solar farm developments have been applied for, including Jindera and Glenellen. A number of other State Significant Developments have been applied for and include a Quarry and Hume Highway Duplication works.	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.

6 CONCLUSION

The Preliminary Environmental Assessment has outlined the proposed Walla Walla 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 State Significant Development under *State Environmental Planning Policy* (*State and Regional Development*) 2011.

The report has been prepared to assist the development of the SEARs for the proposal, which will guide the preparation of the EIS.

The 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 uses 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 BACKGROUND SEARCH RESULTS

A.1 BIONET AND EPBC PROTECTED MATTERS SEARCH RESULTS

Species	Indicated in search?	
	EPBC Act	BC Act
Plants		
Yass Daisy (*Ammobium craspedioides*)	✓	-
Floating Swamp Wallaby-grass (*Amphibromus fluitans*)	✓	✓
A Speargrass (*Austrostipa metatoris*)	-	✓
A Speargrass (*Austrostipa wakoolica*)	-	✓
Ausfeld's Wattle (*Acacia ausfeldii*)	-	✓
Fleshy Minuria (*Kippistia suaedifolia*)	-	✓
Holly-leafed Grevillea (*Grevillea ilicifolia* subsp. *ilicifolia*)	-	✓
Claypan Daisy (*Brachyscome muelleroides*)	-	✓
Tarengo Leek-orchid (*Prasophyllum petilum*)	✓	-
Sturdy Leek-orchid (*Prasophyllum validum*)	✓	-
Crimson Spider Orchid (*Caladenia concolor*)	-	✓
Pine Donkey Orchid (*Diuris tricolor*)	-	✓
Oaklands Diuris (*Diuris sp.*)	-	✓
Spike-rush (*Eleocharis obiscis*)	-	✓
Silky Swainson-pea (*Swainsona sericea*)	-	✓
Mossgiel Daisy *(Brachyscome papillosa)*	-	✓
Austral Pillwort (*Pilularia novaehollandiae*)	-	✓
Woolly Ragwort (*Senecio garlandii*)	-	✓
Slender Darling-pea, Slender Swainson, Murray Swainson-pea (*Swainsona murrayana*)	-	✓
Small Purple-pea (*Swainsona recta*)	✓	✓
Small Scurf-pea (*Cullen parvum*)	-	✓
Sand-hill Spider Orchid (*Caladenia arenaria*)	✓	✓
Winged Peppercress (*Lepidium monoplocoides*)	-	✓
Spiny Peppercress (*Lepidium ascheronii*)	-	✓
Lanky Buttons (*Leptorhynchos orientalis*)	-	✓
Round-leafed Wilsonia (*Wilsonia rotundifolia*)	-	✓
Tylophora linearis	-	✓
Frogs		
Southern Bell Frog (*Litoria raniformis*)	✓	✓
Sloane's Froglet *(Crinia sloanei)*	-	✓

Species	Indicated in search?	
	EPBC Act	BC Act
Birds		
Australasian Bittern (*Botaurus poiciloptilus*)	✓	✓
Australian Painted Snipe	✓	✓
Regent Honeyeater (*Botaurus poiciloptilus*)	✓	✓
Black-chinned Honeyeater (*Melithreptus gularis*)	-	✓
Black Falcon (*Falco subniger*)	-	✓
Black-tailed Godwit (*Limosa limosa*)	-	✓
Blue-billed Duck (*Oxyura Australis*)	-	
Curlew Sandpiper (*Calidris ferruginea*)	✓	✓
Chestnut Quail-thrush (*Cinclosoma castanotum*)		✓
Glossy Black Cockatoo (*Calyptorhynchus lathami*)	-	✓
Dusky Woodswallow (*Artamus cyanopterus)*	-	✓
Brolga (*Grus rubicunda*)	-	✓
Freckled Duck (Stictonetta naevosa)		✓
Major Mitchell's Cockatoo (*Lophochroa leadbeateri*)	-	✓
White-browed Treecreeper (*Climacteris affinis*)	-	✓
Shy Heathwren (*Hylacola cautus*)	-	✓
Brown Treecreeper eastern subspecies (*Climacteris picumnus victoriae*)	-	✓
Swift Parrot (*Lathamus discolour*)	✓	✓
Painted Honeyeater (*Grantiella picta*)	✓	✓
Pied Honeyeater (*Certhionyx variegatus*)	-	✓
Magpie Goose (Anseranas semipalmata)	-	✓
Gang-gang Cockatoo (*Callocephalon fimbriatum*)	-	✓
Malleefowl (*Leipa ocellata*)	✓	✓
Bush Stone-curlew (*Burhinus grallarius*)	-	✓
Purple-crowned Lorikeet (*Glossopitta porphyrocephala*)	-	✓
Little Lorikeet (*Glossopitta pusilla*)	-	✓
Square-tailed Kite (*Lophoictinia isura*)	-	✓
Superb Parrot (*Polytelis swainsonii*)	✓	✓
Speckled Warbler (*Chthonicola sagittata*)	-	✓
Spotted Harrier (*Circus assimilis*)	-	✓
Varied Sittella (*Daphoenositta chrysoptera*)	-	✓
Grey Falcon (*Falco hypoleucos*)	-	✓
Grey-crowned Babbler eastern subspecies (*Pomatostomus temporalis temporalis*)	-	✓

Species	Indicated in search?	
	EPBC Act	BC Act
Black-breasted Buzzard (*Hamirostra melanosternon*)	-	✓
Little Eagle (*Hieraaetus morphnoides*)	-	✓
Hooded Robin south-eastern form (*Melanodryas cucullata cucullata*)	-	✓
Scarlet Robin (*Petroica boodang*)	-	✓
Flame Robin (*Petroica phoenicea*)	-	✓
Southern Scrub-robin (Drymodes brunneopygia)	-	✓
Barking Owl (*Ninox connivens*)	-	✓
Masked Owl (*Tyto novaehollandiae*)	-	✓
Turquoise Parrot (*Neophema pulchella*)	-	✓
Gilbert's Whistler (*Pachycelphala inornata*)	-	✓
Diamond Firetail (*Stagonopleura guttata*)	-	✓
Eastern Curlew (*Numenius madagascariensis*)	✓	-
Plains-wanderer (*Pedionomous torquatus*)	-	✓
White-fronted Chat (*Epthianura albifrons*)	-	✓
Mammals		
Corben's Long-eared Bat, South-eastern Long-eared Bat (*Nyctophilus corbeni*)	✓	✓
Koala (*Phascolarctos cinereus*)	✓	✓
Eastern Bentwing-bat (*Miniopterus schreibersii*)	-	✓
Eastern false pipistrelle (Falsistrellus tasmaniensis)	-	✓
Greater Broad-nosed Bat (Scoteanax rueppellii)	-	✓
Inland Forest Bat (Vespadelus baverstocki)	-	✓
Southern Myotis (*Myotis macropus*)	-	✓
Grey-headed Flying-fox (*Pteropus poliocephalus*)	✓	✓
Spotted-tailed Quoll (*Dasyurus maculatus*)	✓	✓
Eastern Pygmy Possum (*Cercartetus nanus*)	-	✓
Large-eared Pied Bat (*Chalinolobus dwyeri*)	-	✓
Little Pied Bat (*Chalinolobus picatus*)	-	✓
Squirrel Glider (*Petaurus norfolcensis*)	-	✓
Yellow-bellied Sheathtail Bat (*Saccolaminus flaviventris*)	-	✓
Stripe-faced Dunnart (*Sminthopsis macroura*)	-	✓
Fish		
Flathead Galaxias (*Galaxias rostratus*)	✓	-
Murray Cod (*Maccullochelle peelii*)	✓	-
Macquarie Perch (*Macquaria australasica*)	✓	-
Reptiles		

Species	Indicated in search?	
	EPBC Act	BC Act
Pink-tailed Legless Lizard (*Aprasia parapulchella*)	✓	✓
Striped Legless Lizard (*Delma impar*)	✓	✓

A.2 ABORIGINAL HERITATE INFORMATION MANAGEMENT SYSTEM SEARCH RESULTS

Office of Environment & Heritage NSW GOVERNMENT

AHIMS Web Services (AWS)
Extensive search - Site list report

Your Ref/PO Number : Walla Walla Solar Farm
Client Service ID : 387836

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status	SiteFeatures	SiteTypes	Reports
55-6-0012	Hurricane Hill 2;	AGD	55	497570	6046400	Open site	Valid	Artefact : -	Isolated Find	
	Contact	Recorders	Mr.Kelvin Officer					Permits		
55-6-0013	Hurricane Hill 1;	AGD	55	497350	6046140	Open site	Destroyed	Modified Tree (Carved or Scarred) : -	Scarred Tree	
	Contact	Recorders	Mr.Kelvin Officer					Permits	707,2978,2979	
55-6-0026	WW22;Back Creek;	AGD	55	495700	6044920	Open site	Valid	Artefact : -	Open Camp Site	98638
	Contact	Recorders	Mr.Kelvin Officer					Permits		
55-6-0027	WW23;Back Creek Swamp 1;	AGD	55	495850	6045050	Open site	Valid	Artefact : -	Open Camp Site	98638
	Contact	Recorders	Mr.Kelvin Officer					Permits		
55-6-0028	WW24;Back Creek Tributary;	AGD	55	496300	6047050	Open site	Valid	Artefact : -	Open Camp Site	98638
	Contact	Recorders	Mr.Kelvin Officer					Permits		
55-6-0029	WW25;Home Farm;	AGD	55	499300	6048900	Open site	Valid	Modified Tree (Carved or Scarred) : -	Scarred Tree	98638
	Contact	Recorders	Mr.Kelvin Officer					Permits		
55-6-0032	Back Creek 2;	AGD	55	495570	6045750	Open site	Valid	Artefact : -	Open Camp Site	
	Contact	Recorders	Kerry Navin,Mr.Kelvin Officer					Permits		
55-6-0033	Back Creek Swamp 2;	AGD	55	495790	6045750	Open site	Valid	Artefact : -	Open Camp Site	
	Contact	Recorders	Kerry Navin,Mr.Kelvin Officer					Permits		
55-6-0076	Gum Swamp	AGD	55	490632	6044962	Open site	Valid	Modified Tree (Carved or Scarred) : 1		
	Contact T Russell	Recorders	Mr.Graham Moore					Permits		
55-6-0074	Gum Swamp Mt2	AGD	55	490704	6044824	Open site	Valid	Modified Tree (Carved or Scarred) : 1		
	Contact T Russell	Recorders	Mr.Dean Freeman					Permits		
55-6-0075	Gum Swamp Mt12	AGD	55	490785	6044969	Open site	Valid	Modified Tree (Carved or Scarred) : 1		
	Contact T Russell	Recorders	Miss.Kaleana Reyland					Permits		
55-6-0077	gum swamp mt5	AGD	55	490769	6044935	Open site	Valid	Modified Tree (Carved or Scarred) : 1		
	Contact Sarah Colley	Recorders	Mr.Dean Freeman					Permits		

Office of Environment & Heritage NSW GOVERNMENT

AHIMS Web Services (AWS)
Extensive search - Site list report

Your Ref/PO Number : Walla Walla Solar Farm
Client Service ID : 387836

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status	SiteFeatures	SiteTypes	Reports
55-6-0078	Gum Swamp MT8	AGD	55	491033	6045158	Open site	Valid	Modified Tree (Carved or Scarred) : -		
	Contact Sarah Colley	Recorders	Mr.Dean Freeman					Permits		
55-6-0079	Gum Swamp MT10	AGD	55	490857	6044793	Open site	Valid	Modified Tree (Carved or Scarred) : 1		
	Contact Sarah Colley	Recorders	Mr.Dean Freeman					Permits		
55-6-0080	Gum Swamp MT4	AGD	55	491161	6044659	Open site	Valid	Modified Tree (Carved or Scarred) : 1		
	Contact Sarah Colley	Recorders	Mr.Dean Freeman					Permits		
55-6-0082	Gum Swamp Mt 5	GDA	55	490769	6044935	Open site	Valid	Modified Tree (Carved or Scarred) : 1		
	Contact	Recorders	Mr.Dean Freeman					Permits		
55-6-0083	Gum Swamp Modified Tree 3	GDA	55	490824	6044760	Open site	Valid	Modified Tree (Carved or Scarred) : 1		
	Contact	Recorders	Miss.Kaleana Reyland					Permits		
55-6-0084	Gum Swamp Mt	GDA	55	491059	6045143	Open site	Valid	Modified Tree (Carved or Scarred) : 1		
	Contact	Recorders	Mr.Dean Freeman					Permits		
55-6-0085	Gum Swamp Mt 6	GDA	55	492001	6045212	Open site	Valid	Modified Tree (Carved or Scarred) : 1		
	Contact	Recorders	Mr.Dean Freeman					Permits		
55-6-0086	Gum Swamp Mt7	GDA	55	490833	6045078	Open site	Valid	Modified Tree (Carved or Scarred) : 1		
	Contact	Recorders	Mr.Dean Freeman					Permits		
55-6-0087	Gum Swamp Mt 13	GDA	55	490810	6044965	Open site	Valid	Artefact : 1		
	Contact	Recorders	Miss.Kaleana Reyland					Permits		
55-6-0088	Gum Swamp Mt 11	GDA	55	490588	6044877	Open site	Valid	Modified Tree (Carved or Scarred) : 1		
	Contact	Recorders	Mr.Dean Freeman					Permits		

Office of Environment & Heritage NSW GOVERNMENT

AHIMS Web Services (AWS)
Extensive search - Site list report

Your Ref/PO Number : Walla Walla Solar Farm
Client Service ID : 387836

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status	SiteFeatures	SiteTypes	Reports
55-6-0089	Gum Swamp Mt 1	GDA	55	490359	6045151	Open site	Valid	Modified Tree (Carved or Scarred) : 1		
	Contact	Recorders	Mr.Dean Freeman					Permits		

A.3 POSTCOLONIAL HISTORY SEARCH RESULTS

Section 2. Items listed under the NSW Heritage Act.

Your search returned 4 records.

Item name	Address	Suburb	LGA	SHR
Coppabella Blacksmith Shop, Stables and Burial Plot		Rosewood	Greater Hume	00620
Culcairn Railway Station and yard group	Main Southern railway	Culcairn	Greater Hume	01126
Gerogery Railway Station group	Main Southern railway	Gerogery	Greater Hume	01148
Henty Railway Station and yard group	Main Southern railway	Henty	Greater Hume	01169

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

Your search returned 61 records.

Item name	Address	Suburb	LGA	Information source
Alma Park / Wallendool School (Former)		Alma Park	Greater Hume	LGOV
Alma Park Lutheran Church		Alma Park	Greater Hume	LGOV
Bakery Shop	60 Balfour Street	Culcairn	Greater Hume	LGOV
Bethanga Bridge over the Murray River	Riverina Highway (SH 20)	Albury	Greater Hume	SGOV
CBC Bank	Albury Street	Holbrook	Greater Hume	LGOV
Coffee Palace	Albury Street	Holbrook	Greater Hume	LGOV
Cookardinia Hotel		Cookardinia	Greater Hume	LGOV

Cookardinia Memorial Hall		Cookardinia	Greater Hume	LGOV
Courthouse	Albury Street	Holbrook	Greater Hume	LGOV
Criterion Hotel (former)	Albury Street	Holbrook	Greater Hume	LGOV
Culcairn Conservation Area	Balfour Street	Culcairn	Greater Hume	LGOV
Culcairn Court House/ Police Building	Balfour Street	Culcairn	Greater Hume	LGOV
Culcairn Hotel	Railway Parade	Culcairn	Greater Hume	LGOV
Culcairn Memorial Hall	25 Balfour Street	Culcairn	Greater Hume	LGOV
Culcairn Memorial Hall	25 Balfour Street	Culcairn	Greater Hume	LGOV
Culcairn Police Station and Official Residence	33 Balfour Street	Culcairn	Greater Hume	SGOV
Culcairn Railway Conservation Area		Culcairn	Greater Hume	LGOV
Culcairn Railway Precinct	Melville Street	Culcairn	Greater Hume	SGOV
Culcairn Railway Precinct	Melville Street	Culcairn	Greater Hume	SGOV
Culcairn Street Trees Poplars	Culcairn - Walbundrie and Culcairn - Holbrook Roa	Culcairn	Greater Hume	LGOV

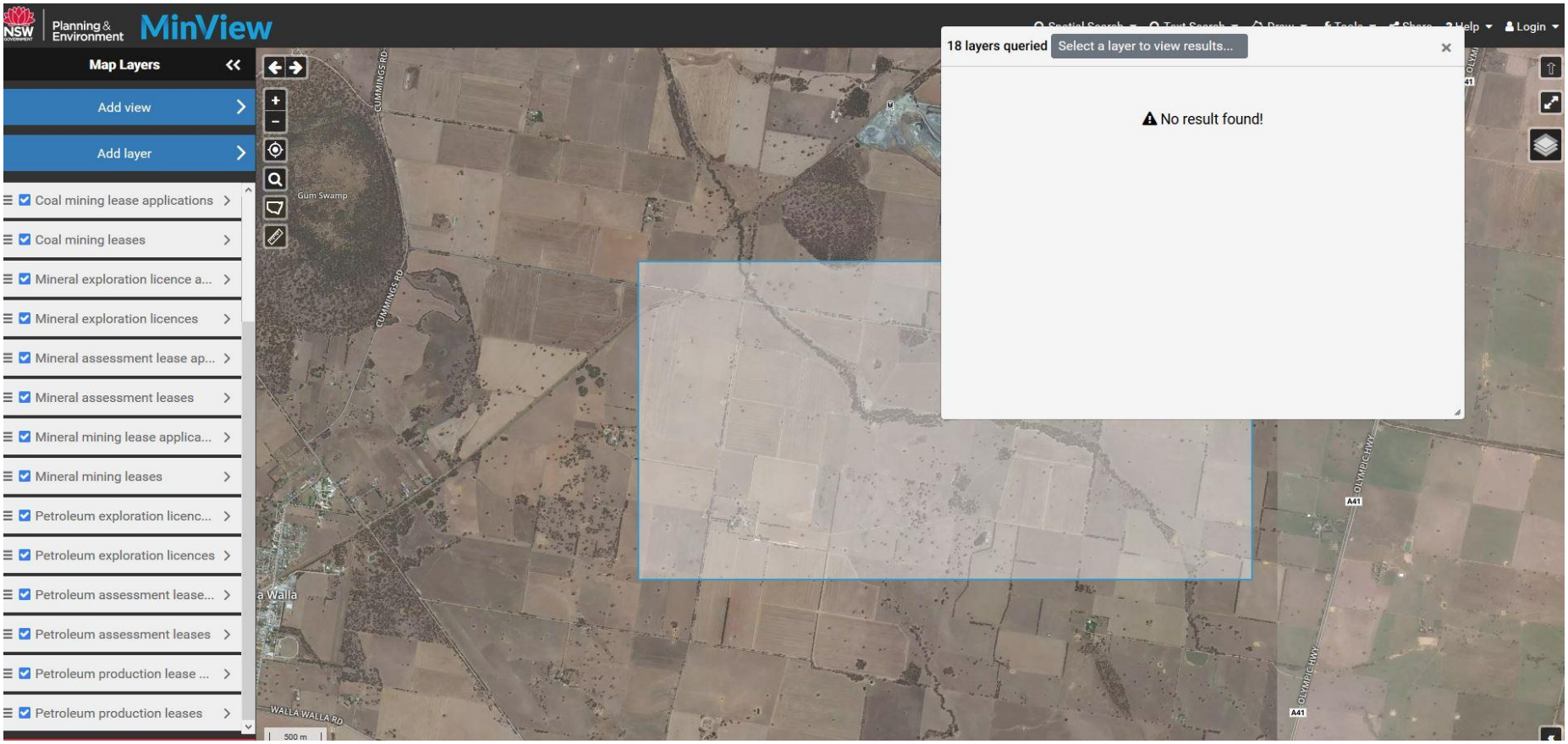
Doodle Cooma Arms Hotel	Sladen Street	Henty	Greater Hume	LGOV
Gerogery Gatekeeper's Residence	Main Street	Gerogery	Greater Hume	SGOV
Goodwood Shearing Shed and Piese Dwelling		(not given)	Greater Hume	LGOV
Hand dug brick lined well	Edward Street	Culcairn	Greater Hume	LGOV
Henty Central Hotel	Allan Street	Henty	Greater Hume	LGOV
Henty Conservation Area		(not given)	Greater Hume	LGOV
Henty Police Station and Official Residence	41 Sladen Street	Henty	Greater Hume	SGOV
Henty Railway Conservation Area		(not given)	Greater Hume	LGOV
Henty Railway Precinct	Railway Parade	Henty	Greater Hume	SGOV
Henty Railway Precinct	Railway Parade	Henty	Greater Hume	SGOV
Holbrook Conservation Area (1)		Holbrook	Greater Hume	LGOV
Holbrook Conservation Area (2)		Holbrook	Greater Hume	LGOV
Holbrook Courthouse and Residence	Albury Street	Holbrook	Greater Hume	SGOV

Holbrook Hotel	Albury Street	Holbrook	Greater Hume	LGOV
Holbrook Police Station and Lockup Keeper's Residence	64 Albury Street	Holbrook	Greater Hume	SGOV
Holbrook Stores		Holbrook	Greater Hume	LGOV
Kirbys Bridge over Majors Creek	Riverina Highway	4.8 km east of Howlong	Greater Hume	SGOV
Knox Presbyterian Church		Holbrook	Greater Hume	LGOV
Mackie & Son Stores	Albury Street	Holbrook	Greater Hume	LGOV
Morgan's Lookout		Walla Walla	Greater Hume	LGOV
Old School Building	Queen Street	Walbundrie	Greater Hume	LGOV
Parramatta Archaeological Management Unit 3140	The Great Western Highway	Mays Hill	Holroyd	LGOV
Police Station	Albury Street	Holbrook	Greater Hume	LGOV
Presbyterian Church (former)	Hume Street	Holbrook	Greater Hume	LGOV
Presbyterian Manse (former)	40 Allan Street	Henty	Greater Hume	LGOV
Residence	4 Keightley Street	Henty	Greater Hume	LGOV

Riverina Hotel	Albury Street	Holbrook	Greater Hume	LGOV
Ross Buildings	Albury Street	Holbrook	Greater Hume	LGOV
Round Hill Hotel	Brownrigg Street	Morven	Greater Hume	LGOV
Scholz's Corner	Balfour Street	Culcairn	Greater Hume	LGOV
Shop	Albury Street	Holbrook	Greater Hume	LGOV
St. Clare's Convent	Albury Street	Holbrook	Greater Hume	LGOV
Ten Mile Creek Bridge	Hume Highway	Holbrook	Greater Hume	SGOV
Timber Cottage and Shop	Albury Street	Holbrook	Greater Hume	LGOV
Union Bridge over Murray River	Hume Highway (SH 2)	Albury	Greater Hume	SGOV
Vokins Creek Bridge	Little Billabong Road	54.4 km west of Tumbarumba	Greater Hume	SGOV
Walbundrie Hotel	Billabong Street	Walbundrie	Greater Hume	LGOV
Walla Walla Library Institute and Memorial Halls	Commercial Street	Walla Walla	Greater Hume	LGOV
William Bros Saddlery and two storey building at rear	Albury Street	Holbrook	Greater Hume	LGOV
Woolpack Inn Museum	Albury Street	Holbrook	Greater Hume	LGOV

Wymah Ferry Crossing on the Murray River	Main Road 282	Wymah	Greater Hume	SGOV
Yarra Yarra Homestead		Holbrook	Greater Hume	LGOV

A.4 MINVIEW SEARCH RESULTS



A.5 CONTAMINATED LAND REGISTER SEARCH RESULTS

Search results

Your search for:LGA: Greater Hume Shire Council

Search Again
Refine Search

did not find any records in our database.

Search TIP

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

... more search tips

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

7 November 2018