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Scoping Report

GRIFFITH SOLAR FARM

MAY 2014

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CONTENTS

TABLES

FIGURES

1 INTRODUCTION

Neoen Australia proposes the development of a commercial scale solar photovoltaic (PV) project located near Griffith in southern New South Wales. The proposal would have a capacity of up to 30 megavolt ampere (MVA).

1.1 PURPOSE OF THIS DOCUMENT

This Scoping Report provides an outline of the existing site and its surroundings, statutory framework for approval, a description of the proposal and identification of key potential environmental issues that may be associated with the solar farm proposal. The report has been prepared to support a request to the Department of Planning and Infrastructure (DP&I) for Director-General's Requirements (DGRs) which will guide the preparation of an Environmental Impact Statement (EIS) for the proposal under Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

1.2 THE PROPOSAL

1.2.1 Site location

The solar farm proposal site is located roughly 7km south east of Griffith, in Griffith City Council Local Government Area (LGA). The site is accessed via Griffith Road and Mirrool Branch Canal Road to the south of the site. The solar proposal would connect to the existing Griffith Transgrid substation located on Hamilton Road to the east of the site.

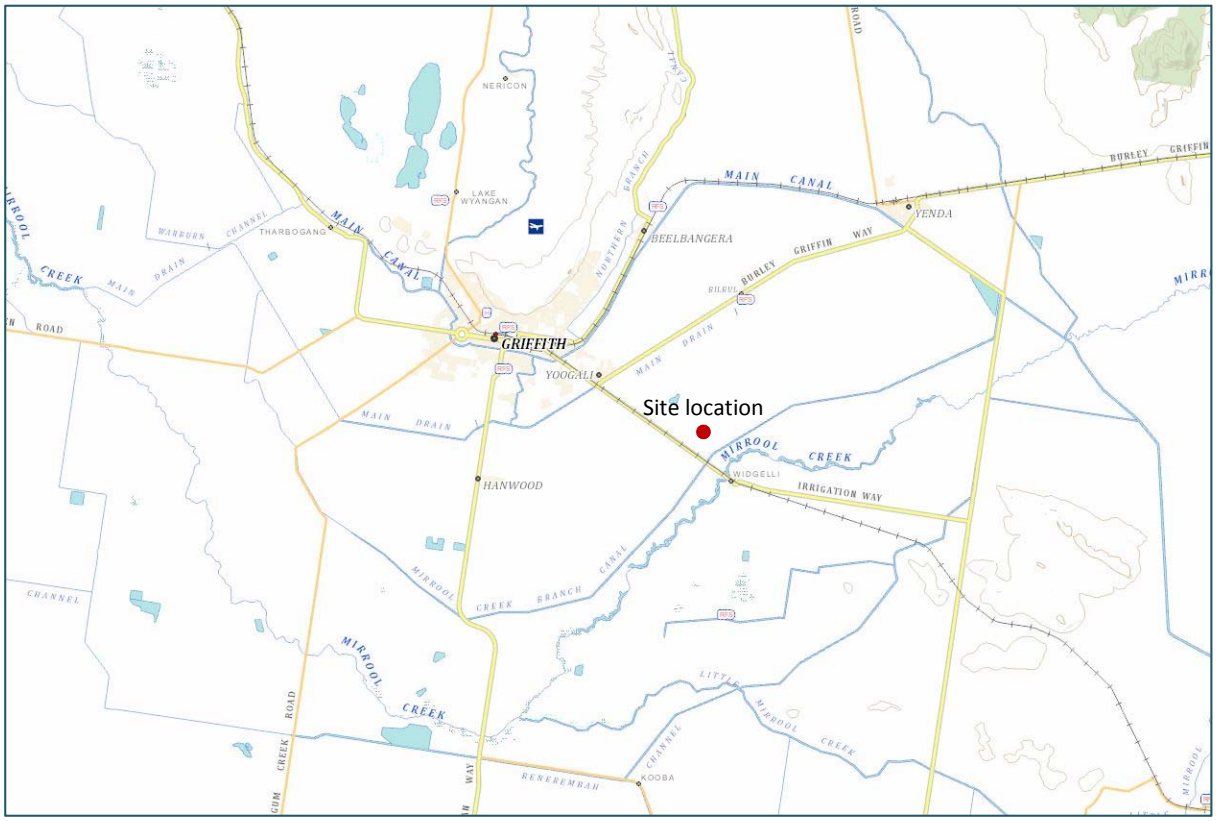

Figure 1-1 Proposed Griffith solar site location (Source SIX Maps, 2013)

1.2.2 Site description and site locality

Figure 1-2 provides a view from the eastern extent of the Griffith Solar Farm proposal site, which is identified as Lots 59, 60, 61, 62, 81 and 82 in DP 751728. The site is approximately 120 hectares and is located within the Murrumbidgee Irrigation Area (MIA).

Figure 1-2 Proposal site looking west along the proposed site access

The proposal site is flat and has three irrigation channels within the proposal site boundary. In order to allow for the development two would be removed and one, that supplies downstream users, would remain intact. The site is completely cleared of native vegetation and is used for irrigated crops.

Figure 1-3 illustrates the features of the Griffith Solar Farm proposal. Neoen Australia proposes to develop approximately 55 hectares of the site. The proposed development area is illustrated as the 'Preferred solar plant location' in Figure 1-3.

Main access to the proposal site is via Griffith Road and Mirrool Branch Canal Road and Poletta Road. Griffith Road is the main road linking Narrandera, Leeton and Griffith. Similarly there is a railway line which runs parallel with Griffith Road.

The area immediately adjacent to the proposal site is dominated by broad scale irrigated agriculture, including viticulture, citrus and cereal crop production and improved pasture. Sensitive receivers include a number of residences located to the west, north and north east of the site, the nearest being approximately 150m from the site.

Native vegetation in the surrounding region is generally restricted to nature reserves, however there are patches of native vegetation within road reserves. The road reserve along Hamilton Road and Mirrool Branch Canal Road (Figure 2-2) contains remnants of Weeping Myall (*Acacia pendula*) Woodland. Weeping Myall Woodland is classified as an Endangered Ecological Community (EEC) under both the NSW *Threatened Species Conservation Act 1995* (TSC Act) and the *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act).

Outside of the water supply channels within the proposal site boundary and Mirrool Creek Branch Canal, adjacent to Mirrool Branch Canal Road, the nearest water course to the site is Mirrool Creek approximately 1km to the south east. Mirrool Creek flows to the south west then north west into Barren Box Swamp, which connects to tributaries of the Lachlan River.

Hermits Cave lookout, located on a ridgeline running approximately north south on the outskirts of Griffith, is approximately 8km north west of the proposal site and has views of the site.

LEGEND

- Proposal site boundary
- Preferred solar plant location
- Grid connection route
- Access to the site from Griffith Rd

GRIFFITH SOLAR FARM
Site Specifications

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APPROVAL PROCESS

17/03/2014: Draft – Chris Leonard
18/03/2014: Approved – Franck Woitiez

Figure 1-3 Proposed site layout (Source Neoen Australia, 2014)

1.2.3 Proposal description

The proposal would comprise the installation of a solar plant with a capacity of up to 30MVA. The proposal would include the following elements:

- PV modules using polycrystalline, monocrystalline or thin-film technology, with solar tracking system.
- A system of inverters and medium voltage step up transformers throughout the arrays.
- Underground electrical conduits and cabling to connect the arrays to the inverters and transformers.
- One or two 33kV transformer station(s) and switchgear(s).
- One or two 33kV overhead or underground line(s) to connect into existing electrical network.
- A supervisory control and data acquisition (SCADA) control system.
- A site office and maintenance building.
- Internal access tracks to allow for site maintenance.
- Perimeter security fencing.
- Native vegetation landscaping.

A 3.5m wide access route to the site would be required. Figure 1-3 illustrates the route to the site from Griffith Road via Mirrool Branch Canal Road (both public roads) and the indicative route to the Preferred solar plant location.

The grid connection route is illustrated on Figure 1-3. Cables would be installed either underground or via an overhead power line within the road reserve (to avoid removing trees), connecting to the substation to the north.

The construction phase of the proposal is expected to take 6 to 12 months. The Griffith Solar Farm is expected to operate for approximately 30 years. The proposal would be decommissioned at the end of its operational lifespan. The site would be re-vegetated as necessary to return it to its original site condition, as far as practicable.

The proposed solar farm at Griffith has a capital investment estimated to be $50 million.

The photographs below show examples of solar plants constructed by Neoen Australia in France and Portugal.

Figure 1-4 11MWp solar project constructed in Rochefort du Gard, France (Source Neoen Australia, 2014)

Figure 1-5 2.2MWp solar project constructed in Coruche, Portugal (Source Neoen Australia, 2014)

2 PROJECT NEED AND ALTERNATIVES

2.1 PROJECT NEED

The Kyoto Protocol is an international agreement created under the United Nations Framework Convention on Climate Change in Kyoto, Japan in 1997. The Australian Prime Minister signed Australia's instrument of ratification of the Kyoto Protocol in 2007, thereby committing Australia to reduce its collective greenhouse gas emissions.

The development of renewable energy projects is considered to be one of the most effective ways to achieve this commitment, which led to the implementation of the Renewable Energy Target (RET) Scheme in 2009.

The Griffith Solar Farm proposal would provide the following benefits:

- Reduction in greenhouse gas emissions and a move towards cleaner electricity generation.
- Provision of embedded electricity generation to supply into the Australian grid closer to the main consumption centers.
- Provision of social and economic benefits through the provision of direct and indirect employment opportunities.

It is noted that there will be new chicken hatchery farms and processing plant developments in the Griffith LGA, as well as 8,000 to 10 000 more residents in the coming 30 years. The electricity generation from the proposed Griffith Solar Farm would assist in supplying the additional load for these facilities and housing developments.

2.2 ALTERNATIVES CONSIDERED

During the site selection process for the Griffith Solar Farm, a number of alternative locations were considered. Minimising environmental and social impacts and maximising efficiency were major considerations in the evaluation of alternatives.

The site was identified as the preferred location, based on the following:

- Availability of an abundant solar resource.
- Proximity to an electricity substation with good connection capacity.
- Availability of appropriate land.
- Suitability in terms of environmental constraints (the site contains no native vegetation and its disturbed nature means Aboriginal heritage issues are unlikely).
- Low flood risk.

Neoen Australia will design the infrastructure layout for the solar proposal once constraints have been identified through the environmental impact assessment (EIA) process. The proposal design is flexible so that there are a number of alternative arrangements and the one which most avoids sensitive constraints will be selected.

3 CONSULTATION

To date, Neoen Australia has had discussions with Griffith City Council and received positive feedback regarding the proposal. Griffith City Council advised the access to the site via Hamilton Road should not be considered as an option as this intersection with Griffith Road is too dangerous. Access to the site from Griffith Road would therefore be via Mirrool Branch Road.

A Community Consultation Plan will be prepared to inform the community and stakeholders of the proposal, including farming communities. Stakeholders will be identified as those potentially being impacted by the solar farm proposal or having an interest in the project itself. The Community Consultation Plan will sell out consultation requirements with interested parties including government agencies, Aboriginal groups, community groups and neighbours to the site. The Community Consultation Plan may include:

- Preparation of material for distribution informing stakeholders about the project and newspaper advertisements to advertise the proposal.
- Establishment of a database, including all private stakeholders and potentially affected landholders.
- Meetings with stakeholders and concerned landholders as required and an open day in Griffith to provide detailed information about the proposal to the general public.
- Establishment of an information hotline and project email address.

The Community Consultation Plan will aim to ensure that there is effective, ongoing liaison with the community. Measures to reduce adverse impacts and promote positive impacts will be identified in the EIS and appropriate management plans developed for the project. Agency consultation will also be undertaken in accordance with the requirements of the DGRs.

4 PLANNING CONSIDERATIONS

4.1 *ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979*

Development in NSW is subject to the requirements of the EP&A Act and its associated regulations. Environmental planning instruments prepared pursuant to the Act set the framework for approvals under the Act.

The proposal would be assessed under Part 4 of the EP&A Act.

4.1.1 State Significant Development

Clause 20 of Schedule 1 of *State Environmental Planning Policy (State and Regional Development) 2011* identifies electricity generating works and heat or co-generation developments which are State Significant Developments. Clause 20 states that '*Development for the purpose of electricity generating works or heat or their co-generation (using any energy source, including gas, coal, biofuel, distillate, waste, hydro, wave, solar or wind power) that:*

(a) has a capital investment value of more than $30 million, or
(b) has a capital investment value of more than $10 million and is located in an environmentally sensitive area of State significance.'

The proposed solar farm at Griffith has a capital investment estimated to be $50 million, therefore the proposal is classified as "state significant development" under Part 4 of the *Environmental Planning and Assessment Act 1979*.

State Significant Developments are major projects which require approval from the Minister for Planning and Infrastructure. An (EIS) is prepared in accordance with the requirements of the Director-General of the DP&I. The Director-General must consult with relevant public authorities and will have regard to the need to assess key issues raised by those public authorities.

The Minister for Planning and Infrastructure is the consent authority for State Significant Development, however, the Minister may delegate the consent authority function to the Planning Assessment Commission (PAC), the Director-General or to any other public authority.

4.1.2 Griffith Local Environmental Plan 2014 and State Environmental Planning Policy (Infrastructure) 2007

The site is located within the Griffith City LGA and is therefore subject to the provisions of the *Griffith Local Environmental Plan 2014* (Griffith LEP). The Griffith LEP aims:

a) *to prevent unnecessary urban sprawl by promoting business, industrial, rural and residential uses within and adjacent to existing precincts related to those uses*

b) *to minimise land use conflict in general by creating areas of transition between different and potentially conflicting land uses*

c) *to provide a variety of development options to meet the needs of the community with regard to housing, employment and services*

d) *to manage and protect areas of environmental significance*

e) *to recognise the historical development of the area and to preserve heritage items associated with it*

The solar farm site and transmission line route are located on land zoned RU1 - Primary Production.

RU1 Primary Production

The LEP states that the consent authority must have regard to the objectives for development in a zone when determining a development application. The objectives of this zone are:

a) *to encourage sustainable primary industry production by maintaining and enhancing the natural resource base*

b) *to encourage diversity in primary industry enterprises and systems appropriate for the area*

c) *to minimise the fragmentation and alienation of resource lands*

d) *to minimise conflict between land uses within this zone and land uses within adjoining zones*

e) *to permit a range of activities that support the agricultural industries being conducted on the land and limit development that may reduce the agricultural production potential of the land*

f) *to permit tourist facilities that promote an appreciation of the rural environment and associated agricultural and horticultural activities, while ensuring the continued economic viability of the land*

For the life of the project, the proposal would harness a natural resource (solar energy). While the activity would impact on land availability for primary production, the land would meet objects b) and c) as identified above; it would allow for diversity in land use, appropriate to the area and it would not fragment resource lands. Being fully reversible and involving limited ground disturbance, it would not remove the potential to use the land for primary production in the medium to long term.

Permissibility

Electrical generation is prohibited in the RU1 Zone. However, 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). A solar energy system includes a PV electricity generating system.

Therefore the project is therefore permissible with consent.

4.1.3 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. Approval from the RMS or Griffith City Council would be required under section 138 of the Roads Act to erect a structure or carry out a work in, on or over a public road.

4.1.4 Native Vegetation Act 2003

The *Native Vegetation Act 2003* regulates the clearing of native vegetation. Clearing is defined as cutting down, felling, thinning, logging, removing, killing, destroying, poisoning, ringbarking, uprooting or burning native vegetation including native grasses and herbage.

The proposal is not expected to involve the clearing of native vegetation, however there is native vegetation in the vicinity of the site, therefore this Act will be considered in the EIA.

4.1.5 Threatened Species Conservation Act 1996

The *Threatened Species Conservation Act 1995* (TSC Act) provides for the conservation of threatened species, populations and ecological communities of animals and plants. The TSC Act sets out a number of specific objects relating to the conservation of biological diversity and the promotion of ecologically sustainable development.

The potential to impact threatened species, populations and ecological communities listed under this Act is discussed in Section 5.2.1 of this report.

4.1.6 National Parks and Wildlife Act 1974

Under the *National Parks and Wildlife Act 1974*, the Director-General of the NPWS is responsible for the care, control and management of all national parks, historic sites, nature reserves, 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 potential impact to Aboriginal heritage and native fauna and flora are discussed in Section 5.2 of this report.

4.1.7 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. A property is a heritage item if it is listed in the heritage schedule of the local Council's Local Environmental Plan or listed on the State Heritage Register, a register of places and items of particular importance to the people of NSW.

The proposal would not impact directly or indirectly on any items of heritage significance (refer to Section 5.2.3).

4.2 COMMONWEALTH LEGISLATION

4.2.1 Environment Protection and Biodiversity Conservation Act 1999

The *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) is administered by the Commonwealth Department of the Environment (DoE). Under the EPBC Act, if the Minister determines that an action is a 'controlled action' which would have or is likely to have a significant impact on a Matter of National Environmental Significance (MNES) or Commonwealth land, then the action may not be undertaken without prior approval of the Minster.

The EPBC Act identifies the following eight MNES:

- World Heritage properties.
- National heritage places.
- Ramsar wetlands of international significance.
- Threatened species and ecological communities.
- Migratory species.
- Commonwealth marine areas.
- The Great Barrier Reef Marine Park.
- Nuclear actions (including uranium mining).

When a person proposes to take an action which may be a 'controlled action' under the EPBC Act, they must refer the proposal to the DoE for a decision about whether the proposed action is a 'controlled action'.

A search of the Commonwealth Protected Matters Search Tool indicates that there are no World Heritage or National Heritage areas or items within the proposal site. Search results listed no Wetlands of International Importance that are either known to occur or have potential to occur in the area. The proposed development is not likely to have a significant impact on the environment of Commonwealth land. Section 5.2.1 discusses the results of searches in relation to threatened species, ecological communities and migratory species. Further flora and fauna studies will confirm whether impacts to the remnant vegetation would occur as a result of the proposed development, during the preparation of the EIS.

4.2.2 Native Title Act 1993

The *Native Title Act 1993* provides a legislative framework for the recognition and protection of common law native title rights. Native title is the recognition by Australian law 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 consult or 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, gathering and collecting 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 or negotiate with anyone who wants to undertake a project on the area claimed.

To the extent that native title does exist in relation to the proposal site, Neoen Australia will comply with the provisions of the *Native Title Act 1993*.

5 PRELIMINARY ENVIRONMENTAL ASSESSMENT

5.1 PRELIMINARY ENVIRONMENTAL RISK ANALYSIS

A preliminary environmental risk analysis has been conducted to assist in the identification of key environmental matters that will require detailed assessment within the EIS. Risks were identified for both the construction and operation phase of the project 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 appropriate mitigation measures, to have a significant impact on the environment.

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 and the need for further environmental assessment and mitigation measures for these key issues. The potential impacts and management of other issues are discussed in Section 5.3**.**

5.2 ASSESSMENT OF KEY ISSUES

5.2.1 Biodiversity

The site has been completely cleared of any native vegetation. Along parts of the site access and grid connection routes (Mirrool Branch Canal Road and Hamilton Road) there are patches of native vegetation including remnants of Weeping Myall (*Acacia pendula*) Woodland. Weeping Myall Woodland is classified as an EEC under both the TSC Act and the EPBC Act. It is possible that this EEC provides habitat for threatened bird species.

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

- Existing threatened species listings under the TSC Act and EPBC Act.
- Existing records of threatened species sightings in the study area, as recorded in the Atlas of NSW Wildlife (OEH).
- Department of, Environment (online) Protected Matters Search Tool (nationally threatened species listed on the EPBC Act).

Neoen Australia has advised that the development of the proposal would aim to avoid the removal of any remnant native vegetation.

Threatened species and ecological communities

A search of the EPBC Act Protected Matters Search Tool was conducted on the 25th of February 2014, using a 10 km radius from a single point located approximately at the centre of the site. This search identified 13 threatened species, four threatened ecological communities that are either known to occur or have potential to occur in this area.

A search of the NSW Atlas of NSW Wildlife was conducted on the same date, using a 10 km x 10 km grid over the site area. This search identifies species listed under the TSC Act. The search identified seven EECs, and 10 threatened fauna species (all birds). The search did not identify any threatened flora species.

Migratory species were also identified in the EPBC search, but have not been discussed as they are unlikely to be impacted by the development. A search of the Department of Primary Industries threatened & protected species (under the *Fisheries Management Act 1994*) returned one record from Mirrool Creek over 20km to the north west of the site, which is not relevant to site constraints.

Biodiversity constraints

It was noted during a site visit in March 2014 site visit that the site has been completely cleared of any native vegetation. Along parts of Mirrool Branch Canal Road and Hamilton Rd there are patches of native vegetation including remnants of Weeping Myall (*Acacia pendula*) Woodland. Weeping Myall Woodland is classified as an EEC under both the TSC Act and the EPBC Act. It is possible that this EEC provides habitat for the threatened bird species for the search results.

Figure 3-1 illustrates the biodiversity constraints identified on the site. The native vegetation along the Mirrool Branch Canal and Hamilton Road corridors are defined as medium to high constraint as it is likely that this vegetation comprises EEC and is habitat for threatened bird species and, given the fragmented vegetation in the landscape, this habitat is unlikely to be well represented locally. Neoen Australia has advised that the proposal design would aim to avoid the removal of this native vegetation.

Conclusions and Need for Further Assessment

The solar farm site is devoid of native vegetation. While an EEC and threatened fauna species of national and state conservation significance have potential to occur within the proposal site, the proposal is unlikely to result in the removal of native vegetation.

As part of the EIA, it is proposed that an ecologist visit the site to identify any native vegetation, EECs or habitat for threatened species in the vicinity of the site, access route and grid route corridors. A formal (stand-alone) flora and fauna impact assessment is not considered to be required.

This information would form part of a constraints assessment to identify sensitive habitat so that impacts on threatened flora and fauna populations and communities can be minimised by designing the solar farm infrastructure layout and location of the transmission easement to avoid them where possible.

5.2.2 Aboriginal heritage

Search results

A search of the AHIMS was completed on 25 February 2014 for the site and surrounding area, which advised that no Aboriginal sites or places are recorded in or near the site.

Conclusions and Need for Further Assessment

Due to the cleared and heavily cultivated nature of the site, it is unlikely to contain any Aboriginal artefacts. The development footprint of the solar proposal extends into the Mirrool Branch Canal Road and Hamilton Road corridors which are less disturbed. Considering that the proposal can generally be designed to avoid any potential impact on identified Aboriginal objects or places, it is expected that potential impacts are avoidable.

An Aboriginal heritage assessment is not considered to be required for the proposal. It is recommended that the *Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales* (produced by the Department of Environment, Climate Change and Water in 2010) is followed. This would include a site inspection by members of the Local Aboriginal Land Council to advise regarding Aboriginal artefacts, sites and places.

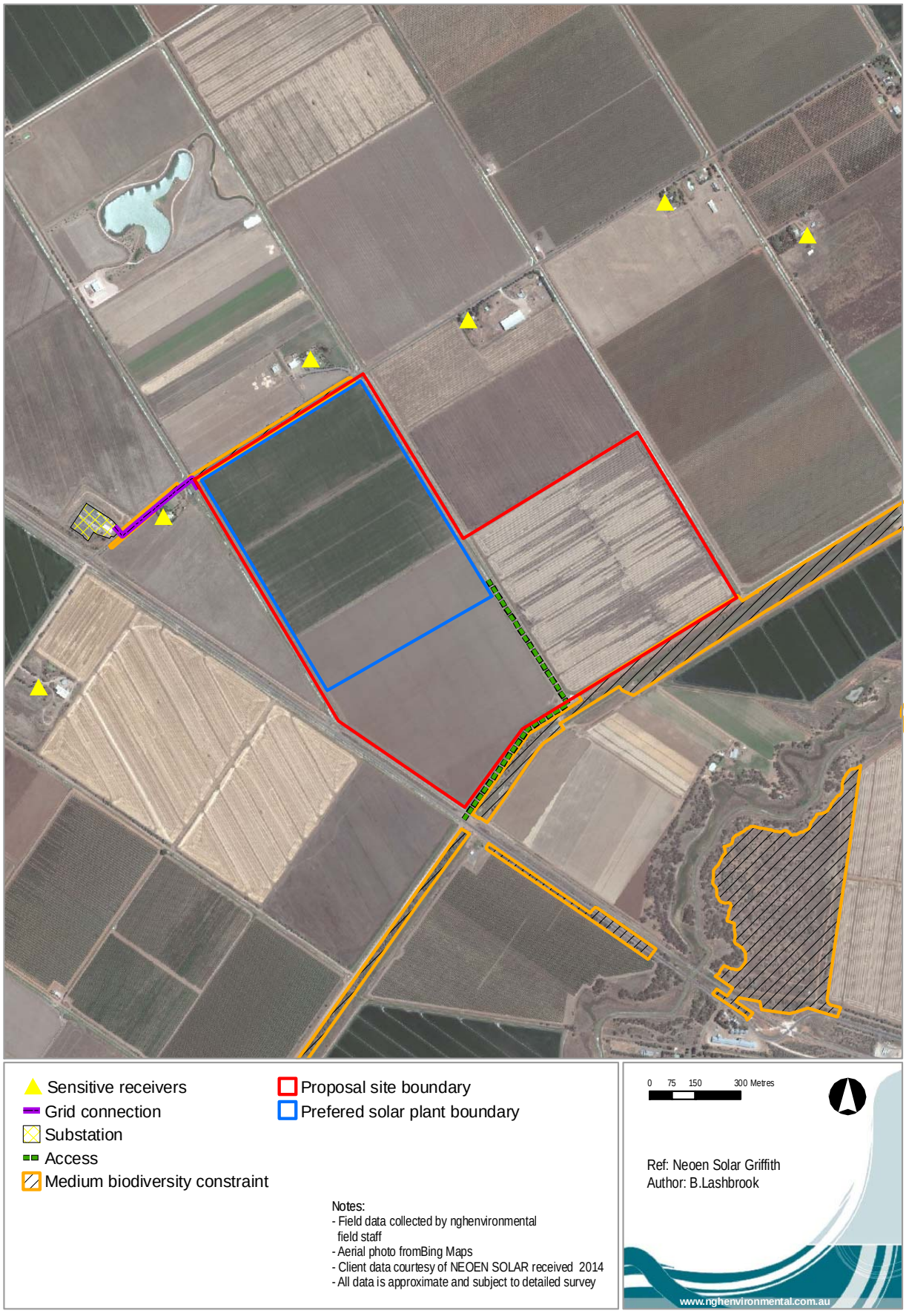

Figure 5-1 Site constraints

Considering that the proposal can generally be designed to avoid any potential impact on identified Aboriginal objects or place, it is expected that potential impacts are avoidable. Appropriate management measures would be developed prior to construction works.

5.2.3 Non-Aboriginal heritage

A search of listed items (under the NSW *Heritage Act 1977*, the Australian Heritage Database and those listed by local Councils and Stage Government agencies) was completed for the Griffith City LGA on 25th February 2014. None of the items listed are located in the vicinity of the site.

Conclusions and need for further assessment

Due to the open and disturbed nature of the site, it is considered unlikely that any other heritage artefacts remain unidentified in the proposal area.

An updated search will be undertaken as part of the EIS, though a non-Aboriginal heritage assessment is unlikely to be required for the proposal.

If a potential European heritage site is uncovered during construction, works in that area would cease until the find could be assessed by an appropriately qualified archaeologist, and the NSW Office of Environment and Heritage would be consulted.

5.2.4 Noise

Sensitive receivers in the vicinity of the site are the residences illustrated on Figure 5-1. The two nearest residences to the site boundary are located approximately 150 m north and west from the site.

Noise impacts would, for the most part, only occur during construction (generated by construction related vehicles and machinery), with minimal noise likely to be generated during operation. Neoen Australia would adopt mitigation measures during construction, such as standard working hours and regular vehicle and machinery maintenance to reduce the risk of adverse noise impacts.

During the operation of the solar farm, potential noise impacts are associated with the solar tracking system (an optional feature which would operate for around half an hour per day), transformer station and switchgear and any maintenance works undertaken on site. Noise impacts during the operation of the solar farm are expected to be negligible.

Conclusions and need for further assessment

The operation of the solar farm and transmission line would not be expected to have any significant noise impacts.

A construction noise assessment will be undertaken as part of the EIA to assess potential noise impacts. The assessment will be undertaken in accordance with the Interim Construction Noise Guideline (Department of Environment Climate Change and Water, 2009).

5.2.5 Visual impact

Sensitive receivers include a number of residences located to the west, north and north east of the site, illustrated on Figure 5-1. The nearest residences are approximately 150 m from the site. One of these residences (to the west) has planted landscaping which would provide visual screening from the proposal site. There is no visual screening between the site and the nearest residence to the north.

Figure 1-3 shows that the site is located several hundred metres north of Griffith Road. The site is not located on an elevated area, however Griffith Road is in close proximity to the site. Griffith Road is the main road linking Narrandera, Leeton and Griffith. Similarly there is a railway line which runs parallel with Griffith Rd. There is little vegetation on the eastern site of Griffith Road to provide any screening between the site and the road.

The proposed solar arrays would be no higher than 3m and solar panels are designed to absorb as much sunlight as possible, therefore reflect a very low percentage of the light they receive, resulting in negligible glare. The panels would be north facing (away from Griffith Road).

Hermits Cave lookout, located on a ridgeline running approximately north south on the outskirts of Griffith, is approximately 8km north west of the proposal site and has views of the site. Figure 5-2 illustrates the view of to the south east from Hermit's Cave lookout with the solar sit in the distance in the middle of the frame. Due to the distance from the site and the limited height of the solar panels, the proposed solar farm is unlikely to dominate views from this location.

Figure 5-2 View toward the south east from Hermits Cave lookout on the eastern side of Griffith

Conclusions and need for further assessment

It is proposed that a landscape and visual impact assessment, including photomontages of the proposal from the nearest residences, Griffith Road and Hermits Cave Lookout is prepared as part of the EIA. The assessment would include photomontages to illustrate proposed screening of the site from the nearest residences and Griffith Road to demonstrate that visual impacts can be mitigated.

5.3 OTHER ENVIRONMENTAL ISSUES

There are a range of potential environmental issues associated with the Griffith Solar Farm which are not considered to be key issues. These issues are considered secondary issues given the characteristics of the proposal and the availability of appropriate safeguards for mitigation. These issues are outlined in Table 5-1 .

It is proposed that these issues will be addressed in sufficient detail to assess the level of their impacts (if any). It is anticipated that any impacts identified would be able to be managed through appropriate mitigation measures and management plans.

Table 5-1 Other environmental issues

Issue	Existing environment	Potential impacts	Management and mitigation measures
Soils and water	The site is located on a low lying area within the Murrumbidgee River catchment.	Construction activities such as excavation have the potential to cause soil erosion and sedimentation.	The adverse impacts on soils and water are expected to be minimal and would be managed with the implementation of erosion and sedimentation control measures. The EIS will provide thorough consideration of soil and water impacts and proposed mitigation measures during construction.
Contamination	Contamination associated with agricultural activities (e.g., pesticides) may still be present on the site.	A search of contaminated sites records for the LGA will be completed. It is unlikely that significant contamination exists on the proposal site and construction activities would not pose a significant contamination risk at the site.	It is considered unlikely that contamination is present at the site and therefore no further investigation is proposed within the EIS. If contamination is identified during site construction, it would be managed in accordance with a Construction Environmental Management Plan (CEMP).
Access and traffic	Griffith Road is a two lane sealed road connecting Griffith with the rural areas to the east. The road is expected to carry medium volumes of traffic.	Impacts to local traffic on Griffith Road during construction.	Consider construction traffic impacts in EIS. Consultation would be undertaken before construction with the appropriate roads authority regarding the works that may affect roads or traffic. A Traffic Management Plan would be developed as part of the CEMP.
Groundwater	The site is located within the MIA. The Water Sharing Plan for this area includes rules for protecting the environment, extractions, managing licence holders' water accounts, and water trading in the plan area.	It is unlikely that groundwater would be encountered given the minor excavation and earthwork requirements for the proposal and pole placements for the transmission lines.	Groundwater impacts are expected to be minimal. Appropriate chemical and fuel handling as part of the CEMP would mitigate any potential contamination of groundwater.

Issue	Existing environment	Potential impacts	Management and mitigation measures
		Contamination of groundwater would also be unlikely given that chemicals and fuels would be appropriately stored, and spills procedures would be implemented.	
Alienation of Resources	The rural land in the study area is used primarily for irrigated agriculture.	Although the proposed PV Power Project has the potential to impact on the viability of the proposed development site for agricultural purposes, the relatively small loss of productive land for the region is not considered likely to have a significant impact on the overall agricultural productivity of the region.	Overall, the adverse impacts on alienation of resources are expected to be minimal, and as such, are not considered to be a key environmental issue. As part of the EIA, information would be obtained from Department of Primary Industries to determine current exploration titles and applications for minerals, coal and petroleum.
Air Quality	The air quality in Griffith is generally expected to be good and typical of that found in a rural setting in NSW due to low population numbers. Existing sources of air pollution in such a location is expected to comprise vehicle emissions, agricultural industries. During colder months, there may be a minimal increase in air contaminants due to smoke emissions from the operation of solid fuel heating.	The construction of the proposal is not anticipated to have a significant impact on air quality.	A CEMP would be prepared to manage air quality impacts during the construction of the project.
Hazard and Risk - EMF	A 33kV transmission line to connect the site to the substation on Hamilton Road is proposed.	Considering that no dwellings or other facilities are intended to be built and occupied within the proposed 66kV transmission line easement, the electromagnetic field (EMF) that would be generated by the proposed transmission line is expected to be below the guideline for public	The EMF levels of the proposed transmission line will be calculated as part of the EIS.

Issue	Existing environment	Potential impacts	Management and mitigation measures
		exposure and would not be expected to have an adverse impact on human health.	
Hazard and Risk - Bushfire	In terms of bushfire hazard and risk, the Griffith region is characterised by mild to hot summers and cool to mild winters. The proposal site has been predominantly cleared for agricultural purposes.	The proposal is unlikely to be affected by bushfire, or pose a significant bushfire risk due to the lack of existing vegetation on and surrounding the site.	The proposed development would not result in an increased risk of bushfire for the site.
Aviation	Griffith Airport is located approximately 13km to the north west of the site. It is likely that there are small, private air strips in the vicinity of the site.	Concerns have been raised in the media regarding the potential risk posed to pilots from solar farms; specifically glare related risks. The PV modules that would be installed at Griffith would not result in a glare issue.	The EIS will provide information about glare impacts related to aviation.
Social and economic impacts	The proposal site is located within the Griffith City LGA, 7km from Griffith. The main industries of employment in this part of NSW are expected to be farming from irrigated agriculture, including viticulture.	The construction of the proposal would generate approximately 150 to 300 jobs at peak construction (approximate duration of 6 to 12 months). It is possible that construction workers would relocate their families to Griffith during the construction period, and this may place pressures on services such as accommodation, schools and health services.	A social and economic assessment will be undertaken as part of the EIS.
Land use	The proposed development is located entirely within the Griffith City LGA. The Griffith LGA predominantly comprises rural land which is used primarily for agriculture, particularly irrigated agriculture. The closest urban centre to the	The change in land use from agricultural to power generation is not considered to be significant. Construction of the proposal may result in temporary loss of access to land along the site access during the construction period.	Overall, the adverse impacts on land use are expected to be minimal. The management of existing and proposed land use of the project area is not considered to be a key environmental issue. The EIS will address issues relating to land use impact in further detail.

Issue	Existing environment	Potential impacts	Management and mitigation measures
	proposed development is the city of Griffith, which is also the main township in the LGA. The proposal development is located on rural land. The surrounding area also comprises rural land.	Construction impacts are not considered to be significant.	
Waste Management	The project would generate a number of waste streams and utilise a variety of materials during the construction phase.	During construction, excavated material and green waste would be generated as waste. No operational waste would be associated with this project.	A Waste Management Plan (WMP) would be developed and incorporated in to the CEMP. This would incorporate the principles to avoid, re-use and recycle to minimise wastes.

6 CONCLUSION

This report has described the proposed Griffith Solar Farm and established the planning context of the project.

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*.

Potential environmental impacts associated with the project have been categorised as key issues or other issues. Based on this scoping study, an indicative scope for the EIS has been developed, focusing on the key issues. The other issues can be readily addressed through appropriate mitigation and management measures and do not require detailed assessment. Following consideration of this report and consultation with other agencies, the DP&I will provide the Director-General's requirements for the EIS.

The EIS would be prepared in accordance with the Director-General's requirements. Statements of Commitment will be developed for inclusion in the EIS and will address the management of key issues and other issues identified in the assessment process.