

COUNCIL ASSESSMENT REPORT

Panel Reference	PPSNTH-66
DA Number	48/2020
LGA	Liverpool Plains
Proposed Development	Establishment of a 5MW Solar PV Electricity Generation Facility with Associated Infrastructure
Street Address	Lot 1 in DP 509915 and Lot 3 in DP 343532 – 962 & 822 Black Gully Road, WERRIS CREEK NSW 2341
Applicant/Owner	Wynergy Pty Ltd C/- KDC Pty Ltd
Date of DA lodgement	22 October 2020
Total number of Submissions Number of Unique Objections	<ul style="list-style-type: none"> • 16 submissions in total • 15 unique objections
Recommendation	Approval
Regional Development Criteria (Schedule 7 of the SEPP (State and Regional Development) 2011	Clause 5 – Private Infrastructure and Community Facilities over \$5 million
List of all relevant s4.15(1)(a) matters	<ul style="list-style-type: none"> • Environmental Planning and Assessment Regulation 2000 • State Environmental Planning Policy (State and Regional Development) 2011 • State Environmental Planning Policy No. 55 – Remediation of Land • State Environmental Planning Policy (Koala Habitat Protection) • State Environmental Planning Policy (Primary Production and Rural Development) 2019 • State Environmental Planning Policy (Infrastructure) 2007 • Liverpool Plains Local Environmental Plan 2011 • Liverpool Plains Shire Council Development Control Plan 2012
List all documents submitted with this report for the Panel's consideration	<ul style="list-style-type: none"> • Architectural, survey and landscape plans • Statement of Environmental Effects • Due Diligence Aboriginal Archaeological Assessment • Flora and Fauna Assessment • Traffic, Visual, Flood, Noise and Social Impact Assessments • Stormwater Management Report and Plans • Waste Management Plan • Reflectivity Report
Clause 4.6 requests	Not applicable
Summary of key submissions	<ul style="list-style-type: none"> • traffic & access • visual • noise • dust • stormwater • economic • natural hazards, including bushfire and flooding • waste & decommissioning • suitability of the site • landscaping • contamination • DA processes
Report prepared by	Alice Elsley (Senior Town Planner)

Report date	22 April 2021
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Summary of s4.15 matters

Have all recommendations in relation to relevant s4.15 matters been summarised in the Executive Summary of the assessment report?

Yes

Legislative clauses requiring consent authority satisfaction

Have relevant clauses in all applicable environmental planning instruments where the consent authority must be satisfied about a particular matter been listed, and relevant recommendations summarized, in the Executive Summary of the assessment report?

Yes

e.g. Clause 7 of SEPP 55 - Remediation of Land, Clause 4.6(4) of the relevant LEP

Clause 4.6 Exceptions to development standards

If a written request for a contravention to a development standard (clause 4.6 of the LEP) has been received, has it been attached to the assessment report?

Not applicable

Special Infrastructure Contributions

Does the DA require Special Infrastructure Contributions conditions (S7.24)?

Note: Certain DAs in the Western Sydney Growth Areas Special Contributions Area may require specific Special Infrastructure Contributions (SIC) conditions

No

Conditions

Have draft conditions been provided to the applicant for comment?

Note: in order to reduce delays in determinations, the Panel prefer that draft conditions, notwithstanding Council's recommendation, be provided to the applicant to enable any comments to be considered as part of the assessment report

Yes

1. Executive Summary

1.1 Reasons for consideration by the Joint Regional Planning Panel

The application is required to be determined by the Joint Regional Planning Panel as the proposal constitutes regionally significant development under Clause 5 of Schedule 7 under *State Environmental Planning Policy (State and Regional Development) 2011*. The proposed development has a Capital Investment Value (CIV) of more than \$5 million (i.e. \$6.9 million), is private infrastructure and constitutes electricity generating works.

1.2 Description of the Proposal

Development Application (DA) 48/2020 seeks development consent for the establishment of a 5MW solar electricity generation facility with associated infrastructure on Lot 1 in DP 509915 and Lot 3 in DP 343532, known as 962 and 822 Black Gully Road, WERRIS CREEK NSW 2341. According to the Statement of Environmental Effects (SEE) accompanying the subject application, the proposed development entails the following:

- Establishment of a grid-connected solar photovoltaic (PV) plant including associated electrical generation, supplying no greater than 5 megawatts (MW AC);
- Installation of an estimated 12,960 PV panels using a single axis tracking system, tilted +/- 60° along the north-south axis. Each panel will produce 405W;
- Access road varying between 3m and 5m in width;
- Earthworks required for site preparation including a concrete slab to support the ancillary infrastructure and underground cabling; and,
- Other associated works as shown on the submitted plans.

The solar farm and associated infrastructure will involve a short-term construction period (i.e. over six (6) months) and, once operational, is expected to have a life of thirty (30) years. No staging is proposed as a part of the subject application.

1.3 Key Issues

From the assessment of the subject application, the key issues for this Project are:

- Visual impacts;
- Traffic impacts and access;
- Social impacts;
- Noise impacts;
- Stormwater impacts;
- Suitability of the site;
- Waste and decommissioning impacts;
- Construction impacts;
- Bushfire and flooding hazards; and,
- Contamination.

1.4 Compliance with Planning Controls

The subject lands are zoned RU1 Primary Production in accordance with the provisions of the *Liverpool Plains Local Environmental Plan 2011* (LEP). The proposed development is considered to be consistent with the objectives of the RU1 zone and is permitted with consent by virtue of Clause 34 under *State Environmental Planning Policy (Infrastructure) 2007*.

The proposal is identified as being integrated development under Section 4.46 of the *Environmental Planning and Assessment Act 1979*. As such, the proposed development will involve works on waterfront land and therefore requires a Controlled Activity Approval from the NSW Natural Resources Access Regulator (NRAR) under Section 91 of the *Water Management Act 2000*. General Terms of Approval from NSW NRAR have been obtained as a part of the assessment of the subject application.

The proposed development has been assessed to be compliant with the applicable statutory planning provisions and Council's Development Control Plan (DCP). The proposal is also deemed to be consistent with the applicable State Environmental Planning Policies, as identified and addressed within this assessment report.

1.5 Consultation

Notification and referral requirements have been complied with as a part of the assessment of DA 48/2020. The DA was notified to adjoining landowners and advertised in the Quirindi Advocate and Council's website for a period of twenty-eight (28) days, commencing 29 October 2020 and ending 25 November 2020. The DA was also referred to NSW NRAR, Essential Energy and Council's Technical Officers for comment – all of which raised no objections to the proposal subject to the imposition of suitable conditions of development consent.

Sixteen (16) public submissions were received during the public consultation period for DA 48/2020. Of the sixteen (16) submissions:

- One (1) submission was in support of the proposal;
- Fifteen (15) were against the proposal – two (2) of which were late submissions.

The matters raised in the submissions have been addressed by both the Applicant and Council as a part of the assessment of DA 48/2020, as detailed in a later section of this Report.

1.6 Recommendation

It is recommended that DA 48/2020 be approved subject to the recommended conditions of consent contain in **Annexure B**.

1.7 Annexures

Annexure A – Plans, Statement of Environmental Effects and Technical Assessments.

Annexure B – Recommended Conditions of Development Consent

Annexure C – Responses from External Agencies

Annexure D – Public Submissions

Annexure E – Response to Submissions

2.0 Evaluation of Development Application

2.1 Proposed Development

Development Application (DA) 48/2020 seeks development consent for the establishment of a 5MW solar electricity generation facility with associated infrastructure on Lot 1 in DP 509915 and Lot 3 in DP 343532, known as 962 and 822 Black Gully Road, WERRIS CREEK NSW 2341. Cadastral and aerial images of the subject lands are shown in **Figure 1** and **Figure 2** below.

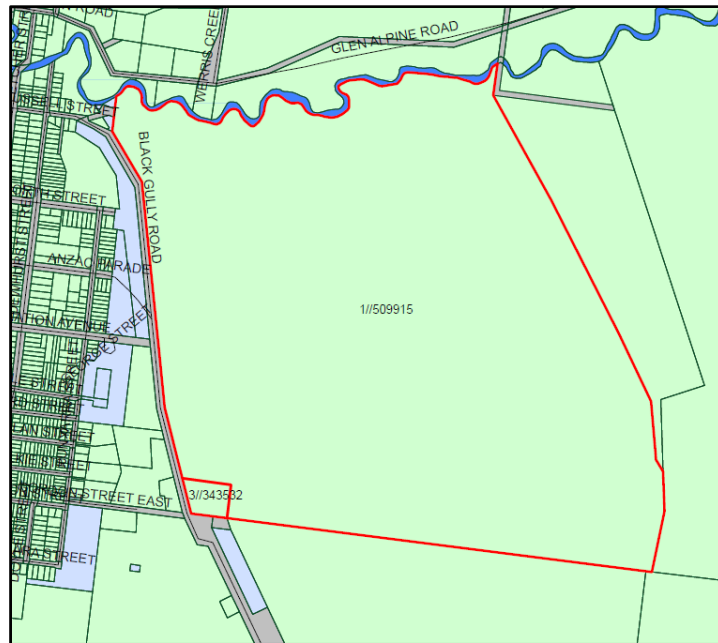


Figure 1 – Cadastral image of the Subject Lands, Lot 1 in DP 509915 and Lot 3 in DP 343532 – 962 & 822 Black Gully Road, WERRIS CREEK NSW 2341.



Figure 2 – Cadastral and aerial image of the Subject Lands, Lot 1 in DP 509915 and Lot 3 in DP 343532 – 962 & 822 Black Gully Road, WERRIS CREEK NSW 2341.

Other electrical generation infrastructure is to be installed as a part of the proposed development. This will include:

- overhead transmission lines for grid connection to the adjacent substation;
- overhead or underground electrical conduits and cabling to connect the arrays;
- an onsite substation containing one (1) transformer and associated switchgear;
- a skid-mounted MV power station consisting of inverters, transformer and switchgear; and,
- an internal inverter stations to allow conversion of DC module output to AC electricity.

The PV arrangement will consist of 216 ground mounted single axis tracker. The PV arrays will have a clearance of approximately 2m above natural ground level at maximum tilt. The PV mounting structure would comprise steel posts that extend approximately 1.5m below ground using a small pile driver. Additional support structures will be attached to the piles to support the PV panels.

Most of the infrastructure for the proposed development will be pre-fabricated off-site, and then delivered and assembled on-site. During the construction phase of the proposed development, temporary facilities, including material laydown areas, site offices and toilet, and car parking areas, would be provided on the site. There will be approximately thirty (30) personnel on the site during the six (6) month construction period.

According to the SEE, the solar farm PV will operate 24/7 with no permanent staff on the site. Inspections for maintenance would be undertaken as required. It is anticipated that the proposed solar farm will operate for approximately thirty (30) years.

2.2 Subject Site and Locality

The subject lands are located on the eastern side of Black Gully Road and have a combined area of 268.5 Hectares. The allotments are zoned RU1 Primary Production in accordance with the provisions of the *Liverpool Plains Local Environmental Plan 2011* (LEP).

The subject lands feature scattered trees, grassland, dams, agriculture (cultivation and grazing) and several unnamed watercourses. There is an existing dwelling house and associated outbuildings situated in the north-west corner of Lot 1.

A former sanitary depot is situated approximately 440m to the south of the development site on Lot 249 in DP 751071. The potential impacts of the former sanitary depot, particularly regarding contamination, are addressed in later sections of this report.

Access and egress to the subject lands is to be gained from the eastern side of Black Gully Road, which is an unsealed road. An internal access road measuring between 3m and 5m will provide access from Black Gully Road to the development site, and will transverse Lot 3 and Lot 1. The access road will also pass underneath the 30m wide easement for Essential Energy, which transverses the subject lands in a north-south direction (see **Figure 4**).

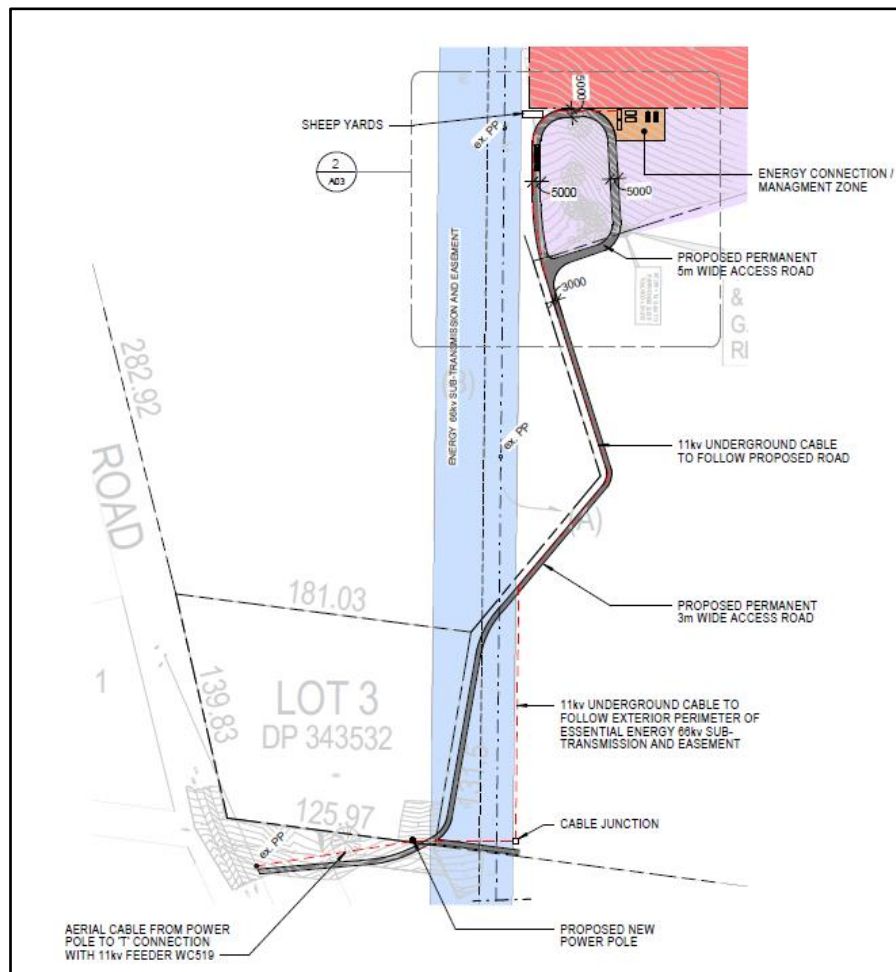


Figure 4 – Site Plan showing Proposed Access road.

2.3 Other Relevant Legislation

➤ *Environmental Protection and Biodiversity Conservation Act 1999*

The *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC) aims to ensure that actions likely to cause a significant impact on Matters of National Environmental Significance undergo an assessment and approval process. The Flora and Fauna Assessment Report prepared by Kleinfelder accompanying the DA advises that the proposed development is unlikely to have an impact on any Matters of National Environmental Significance. The proposed development does not need to be referred to the Commonwealth Minister for the Environment in this regard.

➤ *National Parks and Wildlife Act 1974*

An Aboriginal Archaeological Assessment Report prepared by Virtus Heritage has been submitted with the subject application to address the provisions of the *National Parks and Wildlife Act 1974*. The Report advises that no Aboriginal objects were identified during a site inspection and there are no registered Aboriginal places on the site. The Report also notes that the project area is unlikely to contain archaeological deposits based on the impacts of prior land uses, namely agriculture. The Report suggests mitigation measures for the discovery of any unknown Aboriginal objects, places or archaeological material be discovered during excavation, which have been incorporated into the recommended conditions of consent.

➤ *Water Management Act 2000*

According to the SEE and Flora and Fauna report by Kleinfelder, four (4) first order watercourses are identified within proximity to the development site (see **Figure 5**). One (1) to the north of the site, one (1) along the south-eastern boundary, and one (1) crossing the proposed site access to the south-west of the site. As the proposed development will involve works on waterfront land, a Controlled Activity Approval is required to be obtained from NSW NRAR under Section 91 of this Act. The subject application also constitutes integrated development under Section 4.46 of the *Environmental Planning and Assessment Act 1979* and General Terms of Approval have been obtained from NSW NRAR.

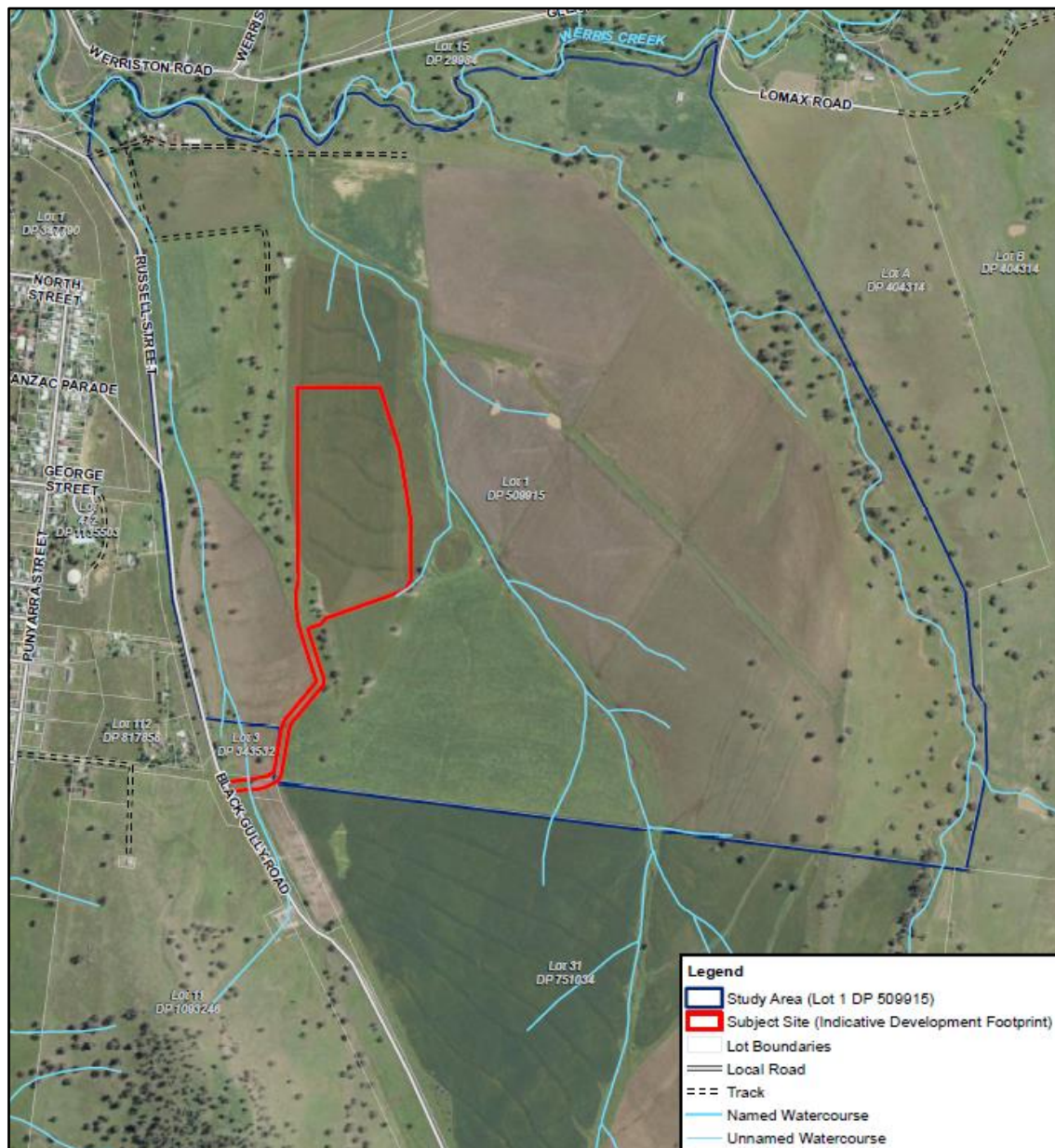


Figure 5 – Identified watercourses on the subject sites and adjoining lands.

➤ *Biodiversity Conservation Act 2016 & Biodiversity Conservation Regulation 2017*

The *Biodiversity Conservation Act 2016* (BC Act) aims to maintain a healthy, productive and resilient environment for the greatest wellbeing of the community, now and into the future, consistent with the principles of ecologically sustainable development. A Biodiversity Development Assessment Report (BDAR) is required to accompany a DA if the proposal will ‘significantly affect threatened species’ and the Biodiversity Offset Scheme (BOS) will apply.

Under Section 7.2 of the BC Act, a development will ‘significantly affect threatened species’ if:

- a. It is likely to affect threatened species or ecological communities, or their habitats, according to the test in Section 7.3; or,
- b. The development exceeds the BOS threshold if the BOS applies to the impacts of the development on biodiversity values; or,
- c. It is carried out in a declared area of outstanding biodiversity value.

Section 7.2(1)(b) of the BC Act and Clause 7.1 of the *Biodiversity Conservation Regulation 2017* (BC Regulation) sets-out the BOS threshold, being whether:

- a. The amount of native vegetation being cleared exceeds a threshold area;
- b. The development involves the clearing of native vegetation or prescribed impacts on an area mapped on the biodiversity values map.

The Flora and Fauna Assessment Report prepared by Kleinfelder advises that a BDAR and entry into the BOS is not required for the proposed development. This is based on the following rationale:

- The proposal is not State Significant Development;
- The proposal will not impact an Area of Outstanding Biodiversity Value, as listed under Part 3 of the BC Act;
- The proposal is unlikely to cause a significant impact on threatened species, population or ecological communities, as determined by an assessment against the five-part-test of significance under Section 7.3 of the BC Act. The assessment is contained in Appendix 5 of the Flora and Fauna report;
- The proposal will not impact areas identified as having ‘high biodiversity value’ on the biodiversity values map; and,
- The proposal will mainly involve clearing of non-native vegetation and will not involve clearing of native vegetation that exceeds the BOS threshold for the site, being 1 Hectare for a minimum lot size of 200 Hectares.

It is considered that the above rationale satisfies the provisions under the BC Act and BC Regulation. A BDAR and entry into BOS is not required.

➤ *Section 4.14 Environmental Planning and Assessment Act 1979*

As the subject lands are prone to bushfire hazards, the application requires assessment pursuant to Section 4.14 of the *Environmental Planning and Assessment Act 1979* (EP&A Act). Section 4.14 of the EP&A Act states that development consent cannot be granted for the carrying out of development for any purpose (other than a subdivision of land that could lawfully be used for residential or rural residential purposes or a special fire protection purpose) unless the consent authority –

- (a) is satisfied that the development conforms to the specifications and requirements of *Planning for Bushfire Protection 2019*; or,

- (b) has been provided with a certificate by a person who is recognised by the NSW Rural Fire Service as a qualified consult stating that the development conforms to the relevant specifications and requirements.

As such, the proposed development falls within the category of ‘other development’ under Chapter 8 of *Planning for Bushfire Protection 2019* (PBP). In this regard, the following must be met to satisfy PBP:

- a. satisfy the aims and objectives of PBP, as outlined in Chapter 1;
- b. consider any issues listed for the specific purpose for the development set out in Chapter 8; and,
- c. propose an appropriate combination of BPMs.

Each of the above is addressed as follows:

- a. The aims and objectives of PBP are:
 - i. *afford buildings and their occupants protection from exposure to a bush fire;*
 - ii. *provide for a defendable space to be located around buildings;*
 - iii. *provide appropriate separation between a hazard and buildings which, in combination with other measures, prevent the likely fire spread to buildings;*
 - iv. *ensure that appropriate operational access and egress for emergency service personnel and occupants is available;*
 - v. *provide for ongoing management and maintenance of Bushfire Protection Measures (BPMs); and*
 - vi. *ensure that utility services are adequate to meet the needs of firefighters.*

Comment: It is considered that the proposed development can satisfy the abovementioned aims and objectives of PBP, which shall be facilitated via the recommended conditions of consent.

- b. Section 8.3.5 ‘Wind and solar farms’ of PBP states that the following should be provided for wind and solar farms:
 - i. A minimum 10m APZ for the structures and associated buildings/infrastructure. The APZ must be maintained to the standard of an IPA for the life of the development;
 - ii. Essential equipment should be designed and housed in such a way as to minimise the impact of bushfires on the capabilities of the infrastructure during bush fire emergencies; and,
 - iii. A Bush Fire Emergency Management and Operations Plan should identify all relevant risks and mitigation measures associated with the construction of the wind or solar farm.

Comment: The SEE advises that the development will include a 10m APZ for the structures and associated buildings/infrastructure. The APZ will be maintained to the standard of an Inner Protection Area for the life of the development. Access for firefighting vehicles is also available from Black Gully Road. Conditions have been included in the recommended terms of consent to ensure that the matters identified in points (b)(i) – (iii) are met.

- c. BPMs:

Comment: Conditions relating to BPMs have been included in the recommended terms of consent to mitigate the impact of bushfire attack. The BPMs conditions relate to an APZ, access, landscaping, water supply and emergency arrangements.

2.4 External Referrals

DA 48/2020 was referred to the NSW Natural Resources Access Regulator (NRAR) as an integrated development under Section 4.46 of the *Environmental Planning and Assessment Act 1979* and Section 91 of the *Water Management Act 2000*. The General Terms of Approval from NSW NRAR were received by Council on 25 November 2020 and are contained in Schedule 2 of the recommended terms of consent.

Written notice was also given to Essential Energy, inviting their comments on the proposal, in accordance with the provisions under Clause 45(2) of *State Environmental Planning Policy (Infrastructure) 2007*. Essential Energy's comments were received by Council on 22 March 2021 and have been incorporated as conditions and advices in the recommended terms of consent.

Copies of the comments from external referrals are contained in **Annexure C**.

2.5 Internal Referrals

Internal consultation was carried out as a part of the assessment of DA 48/2020. This included consultation with Council's Consultant Building Surveyor, Consultant Environmental Health Officer, Consultant Heritage Advisor, Council's Water Services Manager, Council's Works Engineer and Council's Asset Management Officer. Conditions have been incorporated into the recommended terms of consent in line with the advices received from the aforementioned Council Officers.

2.6 NSW Environmental Planning and Assessment Act 1979

The assessment of DA 48/2020 has been undertaken in accordance with Section 4.15(1) of the *Environmental Planning and Assessment Act 1979*, as amended. In determining a development application, a consent authority is to take into consideration the following matters as relevant to the proposal:

- **4.15 (1)(a)(i) the provisions of any environmental planning instrument**

State Environmental Planning Policy (State and Regional Development) 2011

This Policy aims to identify development that is State and regionally significant, and State significant infrastructure and critical State significant infrastructure. The proposal constitutes regionally significant development under Clause 5 of Schedule 7 of this Policy as it has a Capital Investment Value (CIV) of more than \$5 million (i.e. \$6.9 million), is private infrastructure and constitutes electricity generating works. In this regard, the Joint Regional Planning Panel are the consent authority for the proposed development.

State Environmental Planning Policy (Infrastructure) 2007

This Policy (the 'ISEPP') aims to facilitate the effect delivery of infrastructure across the State. Clause 34(1)(b) of the ISEPP states that development for the purpose of electricity generating works may be carried out by any person with consent on any land in a prescribed rural use zone, which includes the RU1 Primary Production zone. The subject lands are zoned RU1 Primary Production under the LEP and therefore the proposed development is permissible with consent under Clause 34(1)(b) of the ISEPP.

The proposal is also permissible with consent by virtue of Clause 34(7) of the ISEPP which states that development for the purpose of a solar energy system may be carried out by any person with consent on any land. The ISEPP defines a 'solar energy system' as follows:

solar energy system means any of the following systems—

- (a) a photovoltaic electricity generating system,
- (b) a solar hot water system,
- (c) a solar air heating system.

In accordance with Clause 45(2) of this Policy, written notice has been provided to the electricity supply authority for the area, being Essential Energy, inviting their comments about potential safety risks. Essential Energy provided their response on 22 March 2021, which has been incorporated into the recommended terms of consent.

The proposed development does not constitute traffic generating development, as prescribed under Clause 104 and Schedule 3 of this Policy. According to the data in the Traffic Impact Assessment (TIA) prepared by Intersect Traffic, the proposed development will not generate traffic volumes that trigger the thresholds under Schedule 3, being 200 or more motor vehicles per hour for development that constitutes 'any other purpose'. The TIA advises that the development will generate up to eighteen (18) additional vehicle movements to and from the site during construction and two (2) vehicle movements during operation of the solar farm.

State Environmental Planning Policy No. 55 - Remediation of Land

The objective of this Policy is to provide a state-wide planning approach to the remediation of contaminated land. The SEPP requires consideration of previous land uses and promotes the remediation of contaminated land for the purpose of reducing the risk of harm to human health or any other aspect of the environment.

In accordance with the provisions under Clause 7(1) of this Policy, it is considered that the development site is suitable for the proposed development and that no further investigation is required. The development site has been historically used for primary production and is currently used for the same purposes. A search of Council's records has not produced any approvals for activities listed under Table 1 of *Planning Guidelines SEPP 55 – Remediation of Contaminated Land* 1998. There are no known previous investigations about contamination on the subject land or land use restrictions issued by the NSW Environmental Protection Authority (EPA). A site inspection did not reveal any visual indications of contamination.

The sanitary depot on the adjoining allotment, being Lot 249 in DP 751017, is not listed by the NSW EPA as a known contaminated site. The Applicant has advised that the proposed solar farm is located approximately 440m to the north of the sanitary depot site and that this buffer allows for the suitable breakdown of any potential biological contaminants which may have breached containment at the site. The Applicant further notes that the proposed solar farm is not considered to be sensitive in nature (i.e. it is not for residential, educational or childcare purposes). Additionally, the Applicant has clarified that the sheep yards indicated on the submitted Site Plan are a proposed new improvement to the site.

Council's Consultant Environmental Officer has reviewed the Applicant's response and concurs that the information provided is all that is required in this instance. It is therefore concluded that the provisions under Clause 7(1) of this Policy have been satisfied.

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

This Policy aims to facilitate the orderly economic use and development of lands for primary production, to reduce land use conflict and sterilisation of rural land, to identify State significant agricultural land and to encourage and protect aquaculture. This Policy applies to the State.

The proposed development is considered to be consistent with the aims of this Policy. The Applicant has designed the proposal with the intent of enabling livestock to graze underneath the panels once the solar farm is operational. Furthermore, the development site is not identified as being State significant agricultural land.

State Environmental Planning Policy (Koala Habitat Protection) (2020) in force as of 30 November 2020

This Policy aims to encourage the proper conservation and management of areas of natural vegetation that provide habitat for koalas to ensure a permanent free-living population over their present range and reverse the current trend of koala population decline. This Policy applies to each Local Government Area (LGA) listed in Schedule 1, which includes the Liverpool Plains.

Part 2 of this Policy applies as the land is:

- within a LGA listed under Schedule 1, being the Liverpool Plains,
- subject to a DA, and,
- has an area of more than 1 Hectare.

In this regard, the provisions under Clause 8 require consideration and states that Council must be satisfied as to whether the land is potential koala habitat before granting consent. Additionally, Clause 8(2) specifies that Council may be satisfied as to whether the land is potential koala habitat only on information obtained by it; or, the applicant from a person who is qualified and experienced in tree identification.

A Flora and Fauna report prepared by Kleinfelder has been submitted with the subject application and states that no native vegetation will require removal. The report also notes that most of the development site has been cleared due to historical agricultural activities. However, there are isolated patches of one (1) koala feed tree species, (*Eucalyptus albens*), which is listed under Schedule 2 of this Policy. Notwithstanding, the assessment undertaken by Kleinfelder has determined that there is no highly suitable koala habitat or core koala habitat on the site due to no evidence of a resident population of koalas and the isolated nature of the feed trees, which are in turn are unlikely to be fed upon by koalas.

State Environmental Planning Policy (Koala Habitat Protection) (2019) repealed on 29 November 2020

This Policy aims to encourage the conservation and management of areas of natural vegetation that provide habitat for koalas to support a permanent free-living population over their present range and reverse the current trend of population decline. This Policy applies to each Local Government Area (LGA) listed in Schedule 1, which includes the Liverpool Plains.

As there is no approved Koala Plan of Management for land within the Liverpool Plains LGA and the subject land has an area of at least 1 Hectare, the provisions under Clause 9 of this Policy apply. Clause 9(2) states that, before Council may grant consent to a development application, Council must assess, in accordance with the Guideline, whether the development is likely to have any impact on koalas or koala habitat.

Based on the abovementioned findings in the Flora and Fauna Report, and given that development is below the BOS threshold under the BC Act, it is considered that the proposed development will be Tier 1 – Low Impact or No Impact under the NSW Department of Planning, Industry and Environment's *Koala Habitat Protection Guideline* (dated October 2020). A condition has also been included in the recommended terms of consent to confirm that no koala feed trees are permitted to be removed as a part of the development. Development consent can therefore be granted for the proposal in accordance with Clause 9(3).

Liverpool Plains Local Environmental Plan 2011

The subject lands are zoned RU1 Primary Production pursuant to the provisions of the Liverpool Plains LEP. The objectives of the RU1 zone are as follows:

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

The proposed development is considered to be consistent with the objectives of the RU1 zone. The proposed solar farm shall consist of 216 ground-mounted single axis trackers, underground cabling, a 3m to 5m wide access road and associated infrastructure. This infrastructure is intended to have minimal impact on existing agricultural activities. In addition, several mitigation measures are proposed to be implemented in order to minimise potential land use conflict, as discussed in a later section of this assessment report.

The proposed development is identified as being 'electricity generating works' which is defined under the LEP as follows:

electricity generating works means a building or place used for the purpose of—
(a) *making or generating electricity, or*
(b) *electricity storage.*

Although 'electricity generating works' are prohibited in the RU1 zone, the development is permissible by virtue of Clauses 34(1)(b) and 34(7) under the ISEPP, as discussed in an earlier section of this assessment report. Clause 8(1) ISEPP also clarifies as follows:

8 Relationship to other environmental planning instruments

Note— *This clause is subject to section 3.28(4) of the Act.*

- (1) *Except as provided by subclause (2), if there is an inconsistency between this Policy and any other environmental planning instrument, whether made before or after the commencement of this Policy, this Policy prevails to the extent of the inconsistency.*

The following local provisions under Part 7 of the Liverpool Plains LEP are of relevance to the subject application:

- Clause 7.1 'Earthworks'

Minimal earthworks are expected to be carried out in conjunction with the proposed development to accommodate the posts for the PV arrays, underground cabling, the access road and an on-site detention basin (OSB). Suitable conditions have been included in the recommended terms of consent to address any adverse impacts that may arise during construction works.

- Clause 7.2 'Flood Planning'

The site is not mapped as being liable to inundation by flooding under the LEP but is in proximity to the Werris Creek. A Flood Impact Assessment report prepared by GHD has been submitted with the subject application. The modelling undertaken in the report concludes that the proposed solar farm site is not subject to flooding during the 1 in 100 (1%) Annual Exceedance Probability storm event.

- Clause 7.4 'Essential Services'

The proposed development is capable of being connected to the essential services listed under Clause 7.4. Suitable conditions have been included in the terms of consent in order to facilitate the arrangements for essential services.

- Clause 7.5 'Airspace Operations'

As the development site is located approximately 22km away from the Quirindi airport, it will not have any impact on the Obstacle Limitation or Operations Surface. A reflectivity assessment has also been submitted with the subject application to address the visual impact of glare from the solar arrays on aviation and concludes that it will have negligible impact.

➤ **4.15 (1)(a)(ii) any proposed instrument that is or has been subject of public consultation under this Act and that has been notified to the consent authority**

At the time of submission of this Report, there were no draft environmental planning instruments that applied to the subject lands.

➤ **4.15 (1)(a)(iii) any development control plan**

The *Liverpool Plains Shire Council Development Control Plan (DCP) 2012* applies to the subject lands. The following Table outlines the relevant Chapters / provisions of the DCP that have been considered in connection with the assessment of DA 48/2020.

Chapter	Comment
3.6.1 Building Setbacks	The proposed development shall achieve compliance with the controls under this Part. As shown on the submitted plans, the proposed solar farm will be located more than 5m from Black Gully Road and the site will be landscaped to mitigate the visual impact of the development.
3.6.2 Traffic & Access	The TIA adequately addresses the controls under this Part of the DCP. Conditions have also been included in the recommended terms of consent to ensure compliance with this Part.

3.6.3 Utilities & Services

The subject lands are not serviced by Council's reticulated sewer infrastructure. A potable water supply on Council's low flow system can be made available to the site. However, as there will be no staff on the site during operations, it is considered that permanent water and sewer services are not essential for proposed development. A condition has also been included in the recommended terms of consent requiring amenities to be made available on site for the duration of construction works.

A Stormwater Management Report prepared by DRB Consulting Engineers has been submitted with the subject application. The report has assessed the impact that the proposed development will have on existing site conditions with respect to stormwater quantity. The report has also considered Council's DCP and Engineering Guidelines, which ask for an Onsite Stormwater Detention (OSD) basin to ensure that post-development flow rates are reduced to pre-development flow rates for all storm events up to and including the 1 in 100-year storm event.

The Stormwater Management Report concludes that the post-development flows can be limited to pre-development flow rates for the 1 in 100-year storm event using the following strategy and as shown in **Figure 6** below:

- i. All impervious runoff from the proposed Photovoltaic Arrays will discharge to the existing ground surface where the natural flow regime will be maintained;
- ii. Runoff from the proposed gravel/hardstand area catchment will be conveyed via sheet flow and the existing earth berm to the proposed above ground OSD basin; and,
- iii. Discharge from the above ground onsite stormwater detention basing (sic.) will be limited to the pre-development flow rates.

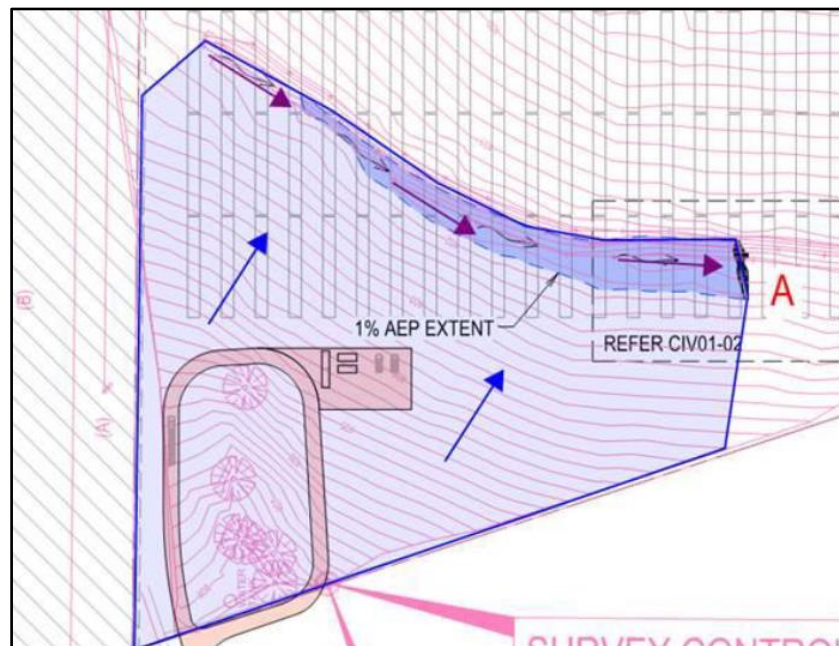


Figure 6 – OSD drainage example.

	<p>Conditions have been included in the recommended terms of consent to ensure that the above strategy is implemented for the development. A Section 68 approval under the <i>Local Government Act 1993</i> to carry out stormwater drainage work and install an on-site sewage management system (if required) will also need to be obtained from Council prior to the issue of a Construction Certificate.</p> <p>Based on the above, it is considered that the proposed development satisfies the controls under this Part of the DCP.</p>
3.6.4 Design	The design of the proposed development is considered to be suitable. Landscaping shall also be provided to ameliorate the visual impact of the solar panels. Compliance with this Part is therefore achieved.
3.6.5 Fencing	The SEE advises that work areas will not be visible from Black Gully Road as the solar farm is setback a significant distance from the road. Security fencing is also proposed to be installed on the site. Compliance with this Part is therefore achieved.
3.6.6 Outdoor Lighting	A condition has been included in the recommended terms of consent stating that, should any outdoor lighting be installed on the site, it is to comply with AS 4282 <i>Control of Obtrusive Effects of Outdoor Lighting</i> . Compliance will therefore be achieved.
3.6.7 Outdoor Signage	Not applicable. The SEE specifies that no outdoor signage is proposed as a part of the development.
3.6.8 Loading and Unloading Facilities	It is considered that there is adequate area on the subject lands for loading and unloading. Compliance with this Part is therefore achieved.
3.6.9 Noise	Not applicable. However, a Noise Impact Assessment has been submitted with the subject application and is addressed in a later section of this assessment report.
3.6.10 Landscaping	It is considered that the proposed landscaping complies with the intent of this Part of the DCP.
3.6.11 Parking	Off-street parking requirements have been adequately addressed in the TIA. Conditions have been included in the recommended terms of consent to ensure compliance in this regard.
4.1.1 – 4.1.1.9 Development on Flood Affected Land	The subject lands are not mapped or identified as being liable to inundation by flooding. Notwithstanding, a Flood Impact Assessment report prepared by GHD has been submitted with the subject application. The modelling undertaken in the report concludes that the proposed solar farm is not subject to flooding during the 1 in 100 (1%) Annual Exceedance Probability storm event.
4.2. Environmental Effects & Land Use Buffers	<p>A SEE and supporting technical studies have been submitted with the application to address the environmental impacts of the proposed development. The proposed development is not expected to have a negative impact on the surrounding environment, subject to the imposition of conditions of development consent.</p> <p>The DCP does not specify any land use buffers for solar farm developments. Consultation with Essential Energy has also been undertaken as a part of the assessment of the subject application in accordance with Clause 45 of the ISEPP.</p>

Developer Contributions

Council may levy contributions for the proposed development in accordance with its adopted Section 7.12 Contributions Plan. According to the cost summary report by APLAS Group Quantity Surveyors (dated 19 April 2021), the cost of the development is \$6,089,415 (incl. GST) and therefore a 1% levy will apply. A condition has been included in the recommended terms of consent requiring the Section 7.12 Contribution to be paid to Council prior to the issue of a Construction Certificate.

- **4.15 (1)(a)(iia) any planning agreement that has been entered into under Section 7.4 or any draft planning agreement that a developer has offered to enter into under Section 7.4,**

There is no planning agreement or draft planning agreement that has been entered into between the developer, relevant body or Council under Section 7.4 of the Act.

- **4.15 (1)(a)(iv) the regulations (to the extent that they prescribe matters for the purposes of this paragraph)**

The provisions under Clauses 92, 93, 94 and 94A of the *Environmental Planning and Assessment Regulation 2000* do not apply to the proposed development.

Schedule 3 of the *Environmental Planning and Assessment Regulation 2000* prescribes that 'electricity generating stations' that supply or are capable of supplying more than 30 megawatts of electrical power from energy sources, including solar, is designated development. As the proposed solar farm will generate a maximum of 5 megawatts, it does not constitute designated development.

- **4.15 (1)(b) the likely impacts of that development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality**

The following Table outlines the likely impacts of the proposed development that have been considered in connection with the assessment of DA 48/2020.

Primary Matters	Comments
Context & Setting	<p>It is considered that the proposed development is appropriate for the site and surrounding locality, subject to the implementation of measures to ameliorate visual and acoustic impacts. Conditions have been included in the recommended terms of consent to this effect.</p> <ul style="list-style-type: none"> ➤ Glare/Reflectivity <p>A Reflectivity Report prepared by Wynergy has been submitted to support the proposed development. The Report advises that the proposal is unlikely to have significant glare impacts with respect to the aviation sector, motorist 'disability' and pedestrian 'discomfort', industrial machinery operations and residential 'nuisance'. The Report states that the development site has been selected based on the presence of existing mature trees and topography, which help to provide screening. Additional landscaping is also proposed to be provided on the site to mitigate the visual impact of the development. The Report concludes that the proposed development is unlikely to have a significant impact.</p>

➤ Views & vistas

A Visual Impact Assessment (VIA) prepared by Moss Environmental has been submitted with the subject application. The VIA has considered landscape character and scenic qualities in the locality, stakeholder values regarding visual amenity and potential impacts on representative viewpoints, including residences and road corridors.

The VIA identifies that some of the elevated properties located along Black Gully Road and Anzac Parade, and the Werris Creek Hospital will be visually affected by the proposed development without mitigation. The VIA therefore recommends the following mitigation measures:

- Advanced trees (saplings) and shrubs should be used in the vegetation planting on the site's boundary parallel to Black Gully Road to obscure/break-up views of the infrastructure for elevated residences (see **Figure 7**);
- Mitigate impacts through good design and use fast growing endemic species in the vegetative screening. Carry out additional consultation with affected residents at these locations and prior to commencement, to inform the need for offsite mitigation; and,
- Vegetation screening around the solar farm. The screen would be medium density, 1-2 rows deep, and would be comprised of varying native species appropriate to the area and of varying heights to soften but not block the view of the site.

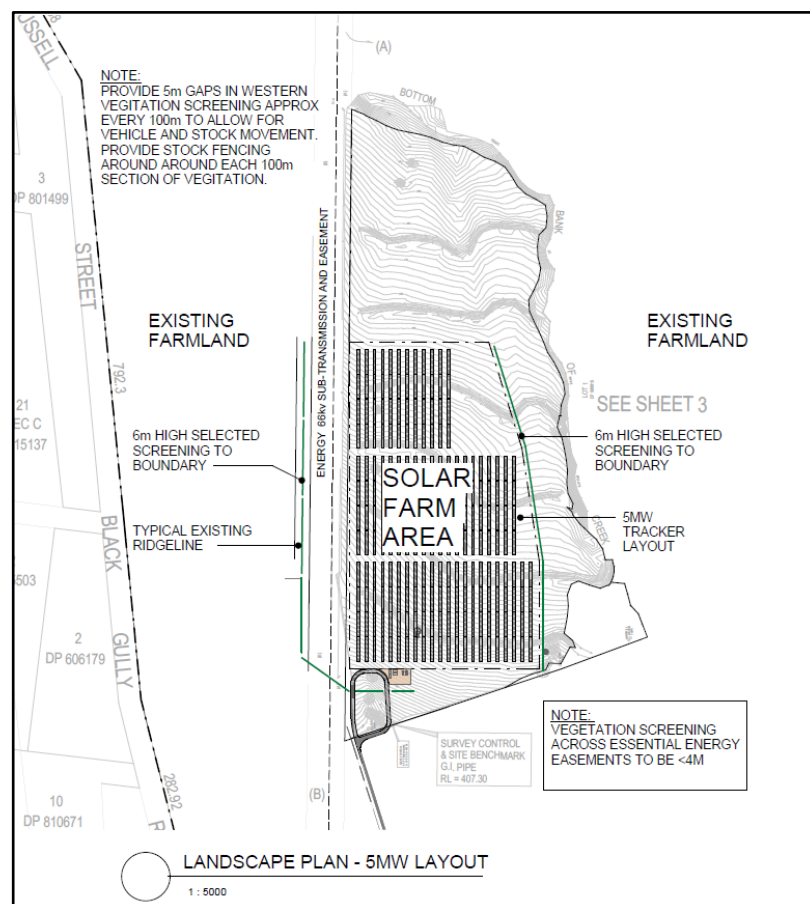


Figure 7 – Indicative landscape layout for the proposed development.

	<p>The VIA concludes that the proposed development would not result in high visual impacts providing that mitigation measures are applied. Conditions have been incorporated into the recommended terms of consent to this effect.</p>
Site Design & Internal Design	<p>The proposed development has been designed and located with consideration to the constraints of the site and potential environmental impacts, as discussed throughout this assessment report.</p>
Access, Transport & Traffic	<p>A TIA prepared by Intersect Traffic has been submitted to support the subject application. The TIA provides the following advices:</p> <ul style="list-style-type: none"> • A new access off Black Gully Road will be constructed as a part of the development; • Deliveries to the site will be via the Pacific Motorway (M1), Hunter Expressway (M15), New England Highway (SH9) from Sydney or Newcastle to Willow Tree and then the Kamilaroi Highway (SH29) to Quirindi, Werris Creek Road (MR 130) to Werris Creek and then via Russell Street to the site (see Figure 8). <div data-bbox="411 887 1385 1601"> </div> <p>Figure 8 – Proposed transport route.</p> <ul style="list-style-type: none"> • The development will require a team of 30 construction employees for a period of up to 6 months working from 7am to 5pm Monday to Saturday. Most traffic movements will be generated during the construction phase of the development with up to 10 light vehicles per day arriving between 6am and 7am and departing between 5pm and 6pm; • During operations, a single light vehicle associated with daily maintenance inspections would be required and would be short term and infrequent. A peak hour traffic generation of 2 vehicle trips per hour (vtp/h) has been assumed for the assessment;

	<ul style="list-style-type: none"> • Deliveries during construction will be provided on rigid and articulated vehicles (AV). There will be a maximum of approximately 8 vehicles per day between 10am and 4pm. However, deliveries may occur during peak hour traffic generation periods due to unforeseen circumstances; and, • Some other vehicles, namely plant equipment, concrete agitators and road base material deliveries may also occur. It is expected that the maximum frequency of such deliveries is expected to be 3 within peak hour. <p>The TIA concludes that:</p> <ul style="list-style-type: none"> • During construction, the development will generate up to an additional 18 vehicle movements to and from the site during the weekday AM and PM peak periods but only 2 vtpd during operations; • The existing peak traffic volumes on the local road network are well below the two-way mid-block capacity threshold of 1,480 vtpd for Werris Creek Road and as well as the environmental capacity of 200 vtpd for the local road network (Russell Street and Black Gully Road). Traffic volumes will remain below these thresholds during the construction and operation of the development; • All intersections along the main transportation route from the New England Highway at Willow Tree to the site will continue to operate satisfactorily and with uninterrupted flow conditions to motorists during construction and post development. Therefore, the additional traffic resulting from the development will not adversely impact on the efficiency of the local and state road network; • The access route will require some additional mitigation measures in order to be suitable for heavy vehicles during construction. Such mitigation measures includes: the piloting of articulated vehicles, and a commitment to repair any damage after construction via the preparation of a dilapidation report. A Construction Traffic Management Plan shall also be required to be prepared and submitted to Council for endorsement prior to the commencement of construction; • There is enough area on the site to accommodate the expected peak parking demand generated during the construction and operational phases of the proposed development. A carpark that complies with AS 2890.1-2004 within the construction laydown area for a minimum of 10 spaces shall also be provided on the site; and, • The proposed development will not generate any increase in demand for public transport or pedestrian or cycle traffic. No upgrades or additional services are considered to be warranted in this regard. <p>Conditions have been included in the recommended terms of consent to ensure that the identified mitigation measures, on site carpark and access are provided for the proposed development.</p>
Public Domain	The proposed development is expected to have negligible impact on the public domain in terms of public recreation opportunities, public spaces and pedestrian linkages.
Utilities	It is considered that the proposed development is unlikely to have an adverse impact on the availability and capacity of utilities. Minimal utilities are expected to be required for the Project as construction will be short-term and there will be no permanent staff on the site, nor any permanent buildings.

Heritage	<p>An Aboriginal Archaeological Assessment Report has been submitted with the subject application to address the provisions of the <i>National Parks and Wildlife Act 1974</i>. The Report advises that no Aboriginal objects were identified during a site inspection and there are no registered Aboriginal places on the site. The Report also notes that the project area is unlikely to contain archaeological deposits based on the impacts of prior land uses, namely agriculture. The Report suggests mitigation measures for the discovery of any unknown Aboriginal objects, places or archaeological material be discovered during excavation, which have been incorporated into the recommended conditions of consent.</p> <p>There are no items of local or State heritage significance known to be present on, or in proximity to, the subject lands.</p>
Other Land Resources	<p>The proposed development is not expected to have an adverse impact on the conservation and use of land resources, including productive agricultural land, mineral and extractive resources and water supply catchments.</p>
Water	<p>Conditions have been included in the recommended terms of consent to facilitate the identified strategy in the Stormwater Management Report and a Section 68 activity approval from Council under the <i>Local Government Act 1993</i> to carry out stormwater drainage work.</p> <p>The proposed development will also be subject to a future Controlled Activity Approval from the NSW NRAR under Section 91 of the <i>Water Management Act 2000</i>.</p>
Soils	<p>The proposed development is not expected to have an adverse impact on soil conversation. Erosion and sediment controls will be required to be installed prior to the commencement of works and maintained for the duration of construction works. Conditions have been included in the terms of consent to this effect.</p>
Air & Microclimate	<p>It is considered that the proposed development will not result in adverse air and microclimatic conditions. The SEE and supporting technical studies identify a range of measures to mitigate any dust that may be generated during construction and operation of the proposed development. Such measures, as identified in the VIA, include: the retention and maintenance of ground cover beneath the solar panels and application of water for dust suppression. Conditions have been incorporated into the recommended terms of consent to ensure compliance in this regard.</p>
Flora & Fauna	<p>A Flora and Fauna prepared by Kleinfelder advises that the development site is predominantly comprised of agricultural cropping and exotic grasslands. No vegetation will require removal in order to accommodate the proposed development. The report has assessed the potential impacts of the Project on threatened biota, flora and fauna, and ecological communities and aquatic habitat. The report concludes that the Project is unlikely to have a significant impact on flora and fauna.</p> <p>In addition, the report has identified a number of avoidance and mitigation measures to reduce potential biodiversity impacts, including but not limited to erosion and dust control, vegetation protection, and weed and chemical spill management. Conditions have been incorporated in the recommended term of consent to ensure that the identified mitigation measures are implemented for the proposed development.</p>

Waste	The SEE advises that waste will be stored and handled in an area adjacent to the temporary site office during construction and minimal waste will be generated during operations as there will be no permanent staff on the site. A Waste Management Plan has been submitted with the subject application and identifies waste management measures for each stage of the development, including site preparation, construction and operations. Conditions have been included in the recommended terms of consent to ensure to that any waste generated by the development is appropriately managed.
Energy	The proposed development involves the establishment of renewable energy, being a 5MW photovoltaic electricity generating system and associated infrastructure.
Noise & Vibration	<p>A Noise Impact Assessment (NIA) prepared by Muller Consulting Pty Ltd (MAC) has been submitted with the subject application. The NIA concludes that the noise generated during the construction of the proposed development will have the potential to exceed the existing noise management levels for four (4) of the identified residential receivers in proximity to the site. Notwithstanding, the NIA has identified several mitigation measures, such as community consultation forums and the use of broadband reverse alarms, that can be implemented to reduce noise emissions from the Project. The mitigation measures have been incorporated as a condition in the recommended terms of consent.</p> <p>Additionally, the NIA advises that the Project will not result in adverse road noise impacts during construction and operational noise levels will remain below the identified criteria at the assessed residential receiver locations.</p> <p>Council's Consultant Environmental Health Officer has also provided the following condition for inclusion in the recommended terms of consent:</p> <p><i>Any noise generated from the operation of the development must not be intrusive or offensive as defined by the Protection of the Environment Operations Act 1997.</i></p>
Natural Hazards	The subject lands are identified as being prone to bushfire hazards. Although the lands are not mapped as being liable to inundation by flooding under the LEP, a flood impact assessment has been provided with the subject application as the lands are situated near the Werris Creek. These hazards have been addressed throughout this assessment report with appropriate conditions included in the recommended terms of consent to reduce potential risks.
Technological Hazards	<p>The Flora and Fauna report by Kleinfelder identifies several measures to prevent chemical spills. Such measures include: the storage of chemicals in bunded areas, regular inspections for leaking oils or fuels from vehicles, and no re-fuelling, washing or maintenance of vehicles within 20m of natural drainage lines. A condition has been incorporated into the recommended terms of consent to ensure compliance in this regard.</p> <p>In addition, Council's Consultant Environmental Health Officer has provided conditions to ensure that the proposed development does not contaminate the soil or groundwater. The conditions have been included in the recommended terms of consent.</p>

Safety, Security & Crime Prevention	The proposed development is not expected to have an adverse impact on safety, security and crime prevention. The development site will be improved with security fencing.
Economic Impact on the Locality	It is anticipated that the proposal will have a positive economic impact on the locality, particularly during the construction phase of the development. This will potentially create more job opportunities for local tradespeople, and expenditure locally on groceries and meals.
Social Impacts	<p>A Social Impact Assessment (SIA) prepared by Element Environment has been submitted with the subject application. The SIA has utilised the NSW Department of Planning, Infrastructure and Environment's <i>Social Impact Assessment Guideline (2017)</i> and makes the following key findings:</p> <ul style="list-style-type: none"> • The proposed development is not expected to involve changes to people's access to and use of infrastructure, services and facilities; culture; personal and property rights; decision-making systems; and, fears and aspirations; • Positive impacts are most likely to occur during the construction phase of the proposed development. It is expected that this would produce short-term demand for goods and services in the local area, including job opportunities for tradespeople and expenditure locally on groceries and meals; • The longer-term impacts of renewable energy are deemed to outweigh the short-term construction impacts. The proposal is expected to have long-term impacts of generating a clean and renewable energy and contribute to the reduction in carbon emissions. During construction, the proposal will generate noise and dust impacts, which may negatively affect the health and wellbeing of the community. However, mitigation measures are proposed to be implemented in order to reduce negative impacts; • The proposed development has the potential to impact the way of life and community of Werris Creek during construction due to the comparative size of the labour force and the likelihood of this labour force interacting with the community. However, as the construction phase of the development will be approximately six (6) months, long-term impacts to the community are expected to be negligible; and, • The proposed development has the potential to create moderate changes to the visual amenity of the surrounding area, particularly for the rural-residential properties located off Black Gully Road, Anzac Parade and the electrical substation. However, the SIA advises that such impacts can be reduced to low and immaterial through the application of the identified mitigation measures in Table 3. <p>Conditions been included in the recommended terms of consent to ensure that the predicted negative social impacts are mitigated as per the recommendations in the SIA.</p>
Construction	Conditions have been included in the recommended terms of consent to mitigate construction impacts. Such conditions relate to hours of work, parking and traffic management, waste, toilet facilities, noise and dust mitigation, and signage. A

	CMEP is also required to be prepared and implemented as a recommended condition of consent.
Cumulative Impacts	Acceptable, as discussed throughout this assessment report and subject to conditional approval.
Other?	No other impacts have been identified.

➤ **4.15 (1)(c) the suitability of the site for the development**

The subject lands are considered to be suitable for the proposed development for the following reasons:

- The proposed development is not expected to result in deleterious impacts, subject to the imposition of suitable conditions of consent;
- The attributes of the subject lands are conducive for the purposes of the proposed development;
- The known environmental hazards that affect the subject lands, including bushfire and flooding, are not expected to render the proposal prohibitive; and,
- The proposed development is permitted with development consent under Clause 34 of the ISEPP and aligns with the strategic direction in Council's Local Strategic Planning Statement.

➤ **4.15 (1)(d) any submissions made in accordance with this Act or the regulations**

Sixteen (16) public submissions were received during the public consultation period for DA 48/2020 (see **Annexure D**). Of the sixteen (16) submissions:

- One (1) submission was in support of the proposal; and,
- Fifteen (15) were against the proposal – two (2) of which were late submissions. The matters raised in the submissions have been addressed by both the Applicant and Council's Assessing Officer (see **Annexure E**).

Agency submissions have been addressed in an earlier section of this report.

➤ **4.15 (1)(e) the public interest**

The proposed development has been assessed to be in the public interest as detailed throughout this Report, subject to the imposition of appropriate conditions of development consent. The proposed development is not expected to have a negative impact on the health and safety of the public.

3.0 Assessment Conclusion & Recommendation

The proposed development constitutes an 'electricity generating works' and is permitted with consent in accordance with the provisions under *State Environmental Planning Policy (Infrastructure) 2007*. The subject application has been supported with several technical assessments that identify potential impacts and mitigation measures for the development, which have been conditioned within the recommended terms of consent.

Sixteen (16) submissions were received by Council in response to the public consultation period for the subject application, raising various concerns about the proposal. These concerns have been considered as a part of the assessment of DA 48/2020.

As a result of this assessment, it is recommended that the proposed development be granted conditional development consent. **Annexure B** of this report contains all relevant conditions that have been identified and discussed throughout this assessment report.