COUNCIL ASSESSMENT REPORT

Panel Reference	**2018NTH013**
DA Number	**DA2018/40**
LGA	**Moree Plains Shire Council**
Proposed Development	**Erection of a 4.99MW Solar Farm**
Street Address	**Kentucky Road, BOGGABILLA** **LOT: 1 DP: 1236244**
Applicant/Owner	Kinelli Pty Ltd Michael Kendall Mailler and Barbara Mildred Mailler
Date of DA lodgement	30 April 2018
Number of Submissions	**8**
Recommendation	**Approval**
Regional Development Criteria (Schedule 7 of the SEPP (State and Regional Development) 2011	**Private infrastructure for the purpose of electricity generating works with a capital investment value of more than $5 million.**
List of all relevant s4.15(1)(a) matters	• State Environmental Planning Policy 44 – Koala Habitat Protection • State Environmental Planning Policy 55 – Remediation of Land • State Environmental Planning Policy (Infrastructure) 2007 • State Environmental Planning Policy (Rural Lands) 2008 • State Environmental Planning Policy (State and Regional Development) 2011 • New England North West Regional Plan 2036 • Moree Plains Local Environmental Plan 2011 • Moree Plains Development Control Plan 2013 • Upper North-West Regional Economic Development Strategy
List all documents submitted with this report for the Panel's consideration	• Location plan • Site plan • Statement of Environmental Effects • Submission from Roads & Maritime Services • Draft conditions of approval
Report prepared by	**Murray Amos**
Report date	

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**

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)? **No**

Conditions

Have draft conditions been provided to the applicant for comment?	**Yes**

EXECUTIVE SUMMARY

Description of Proposal

The development encompasses the construction and operation of a solar farm with a maximum transfer capacity 4.999 MW AC.

The development will consist of:

- Two solar arrays, 3 blocks wide (east-west) and 8 blocks long (north-south). Each block is made up of 760 PV modules arranged 19 PV modules long (north-south) and 40 PV modules wide (east-west). The PV module will be a Global Tier 1 panel.
- 2 combined inverter/transformer stations.
- 8 battery storage containers with a combined storage capacity of 20 MWh (2.5 MWh per container).
- Overhead 22kV line with MV pole mounted recloser.
- 1.8m surrounding chain wire fence with 2 x 6m double leaf gates.

There is an existing power line in close proximity to the property. This line and pole connects into Essential Energy's 22kV distribution network. The proximity of this line is important with respect to reducing the resources required to deliver power from the solar farm to the grid. The Essential Energy 22 kV distribution feeder back to the Goondiwindi Zone Substation is identified as GDI8B2.

The development is for electricity generating infrastructure by a private company and has a capital investment value of $6 million. Consequently, the Development Application is required to be determined by the Joint Regional Planning Panel (JRPP) as the development is for infrastructure undertaken by a private developer with a capital investment value over $5 million, as outlined in Schedule 7 of the State Environmental Planning Policy (State and Regional Development) 2011.

Site Description & Surrounding Land Uses

The subject site has been used historically for agricultural cropping purposes and does not feature any trees or shrubs.

The specific site has been selected due to its proximity to Essential Energy's 22kV network. However, the area and region in general, is extremely well suited for solar farms due to the very high solar resource which increases solar PV electricity generation. The site also benefits from previous levelling and clearing which negates the need for significant earthworks or disturbance to any areas with potential biodiversity value.

The surrounding locality is characterised by cropland to the west, south and east, with the existing Chillamurra solar farm also to the east. Land to the north of the site includes riparian vegetation adjacent to the Macintyre River, across which lies the township of Goondiwindi. The nearest sensitive receptor (dwelling) is located approximately 290 metres from the development site on the southern fringe of Goondiwindi.

The development footprint will cover approximately 8.13 hectares and will be restricted to land which has previously been cleared for crop production.

The site has been selected for solar development due partly to its close proximity to the Goondiwindi Zone substation identified as GDI8B2.

Permissability

The proposed solar farm is properly categorised as "electricity generating works" under the LEP.

"Electricity generating works" is defined as follows:

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

The subject site is located within the RU1 – Primary Production Zone (RU1 Zone). Under the RU1 Zone, within the LEP, "electricity generating works" are prohibited. The permissibility arises from the SEPP Infrastructure 2007, Division 4 (Electricity generating works or solar energy systems), Clause 34 (Development permitted with consent) which states the following:

34(1) Development for the purpose of electricity generating works may be carried out by any person with consent on any land in a prescribed rural, industrial or special use zone.

The RU1 Zone is a prescribed rural zone.

Recommendation

The proposed development is considered to be generally compatible with its surrounds and provides for a diversification of land uses on the property.

As a result of this assessment, the proposed development is recommended for conditional consent. Appendix 1 to this report contains the proposed conditions of consent.

Recommendation:

a) That having regard to the assessment of the application, DA2018/40 (JRPP Ref. 2018NTH013) be granted conditional consent in the terms set out in Appendix 1 to this report.

PLANNING REPORT

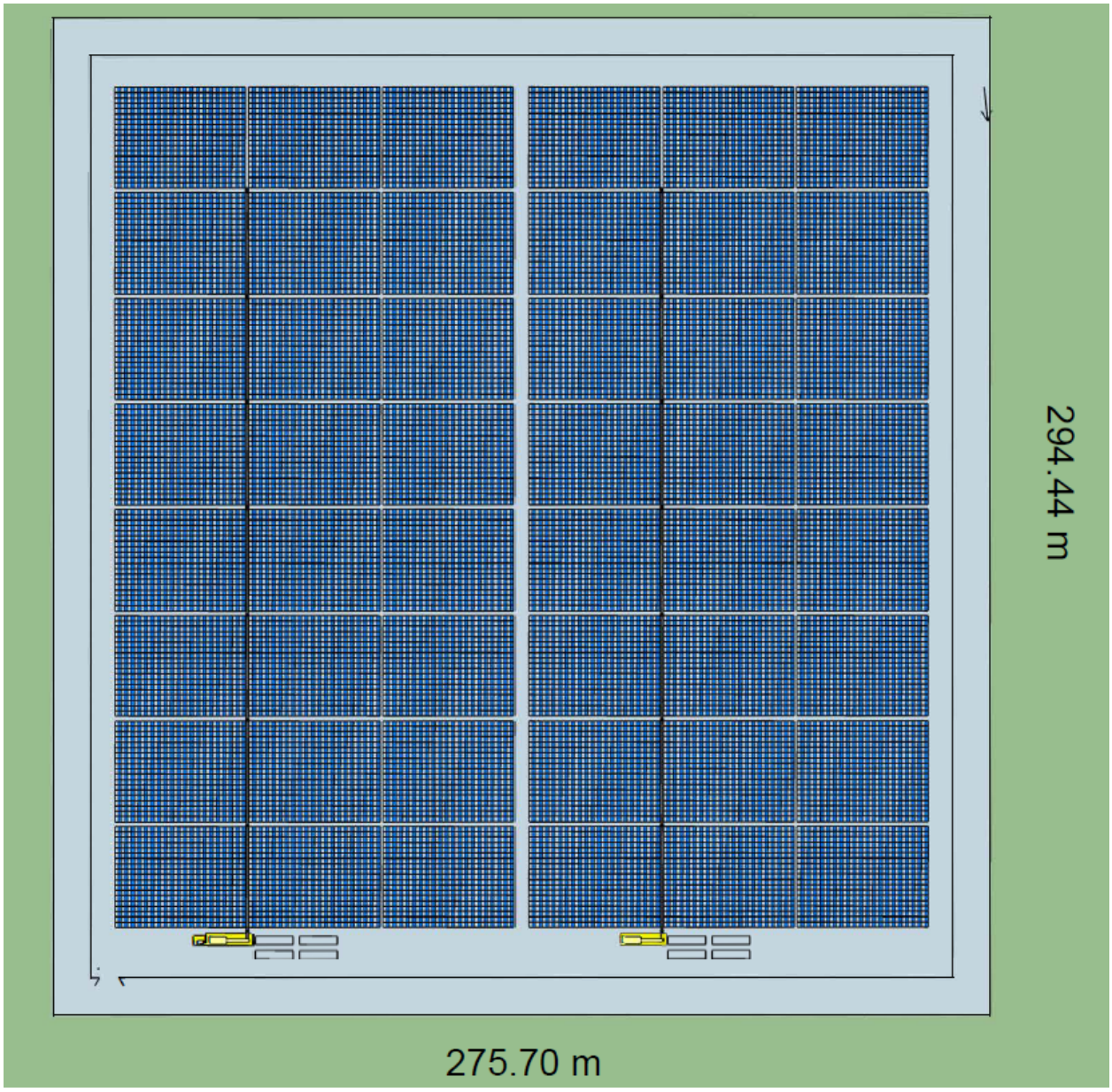
1. Site and locality

The proposed site is located 12km north-west of Boggabilla and is adjacent to the south of Goondiwindi (Queensland). The property description of the land is Lot 1 DP 1236244, Kentucky Road, Boggabilla NSW. The subject lot has a total area of 120 hectares and the proposed solar farm would occupy 8.13 hectares of this.

The subject land is currently zoned RU1 'Primary Production' under the Moree Plains Local Environmental Plan 2011. The property is owned by Michael Kendall Mailler and Barbara Mildred Mailler.

Figure 1 Location plan

Figure 2 Site Plans


294.44 m
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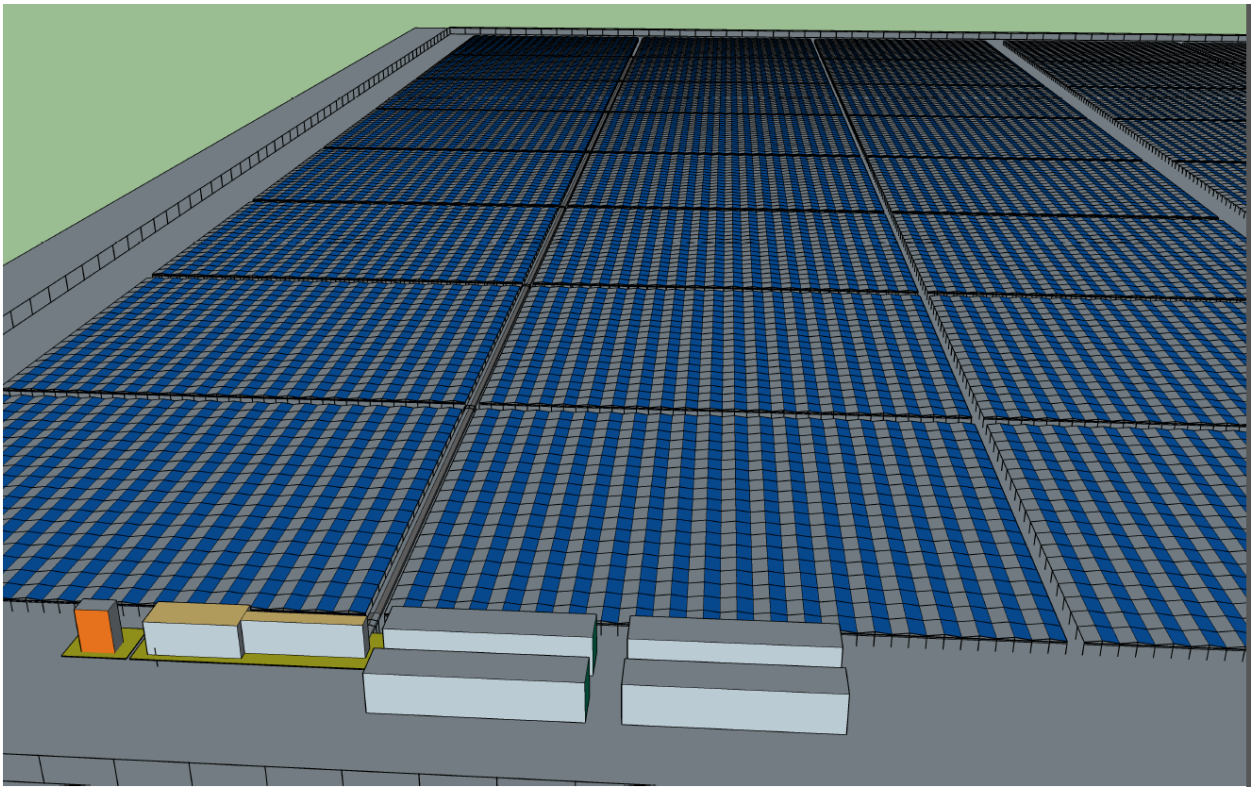


2. Statutory Development Assessment Framework

2.1 Permissibility

Regionally Significant development

The site is zoned RU1 - Primary Production under Moree Plains Local Environmental Plan 2011 (**LEP**) as shown in the figure below. The development proposal is not permissible under the LEP Land Use Table however it is permissible under State Environmental Planning Policy (Infrastructure) 2007.

Figure 3 Land Use Zoning map RU1 Primary Production

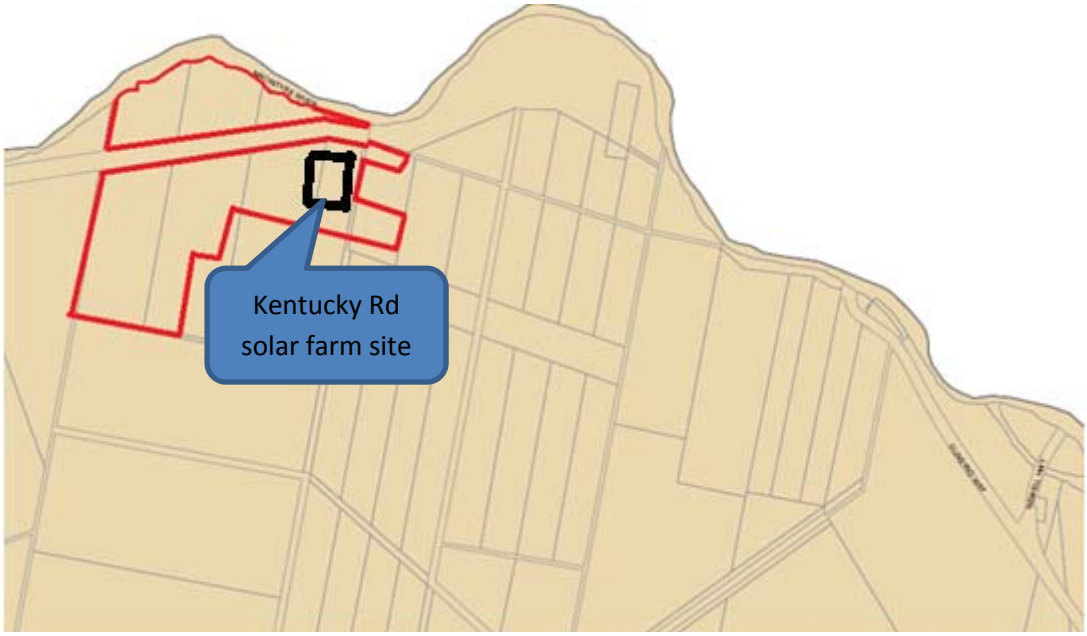
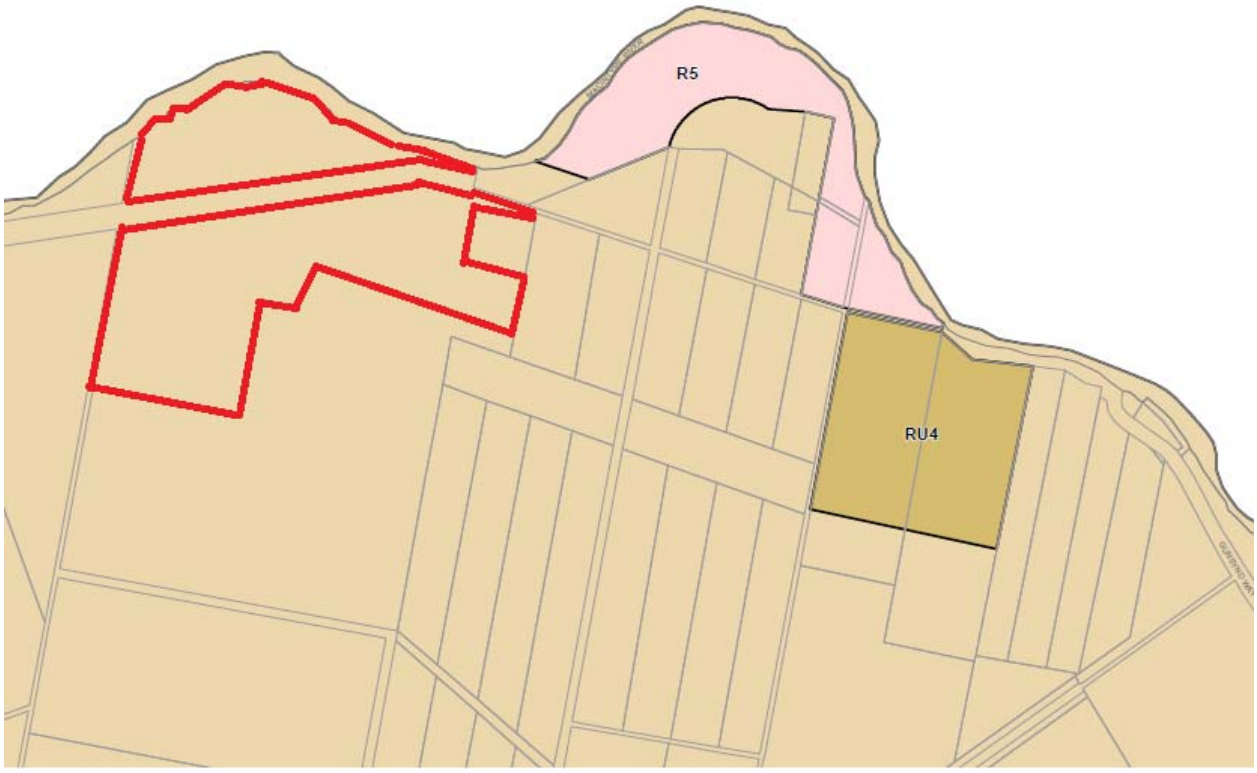


Figure 4 Draft Land Use Zoning Map including Moloney's rezoning of land to R5 Large Lot Residential and RU4 Primary Production Small Lots

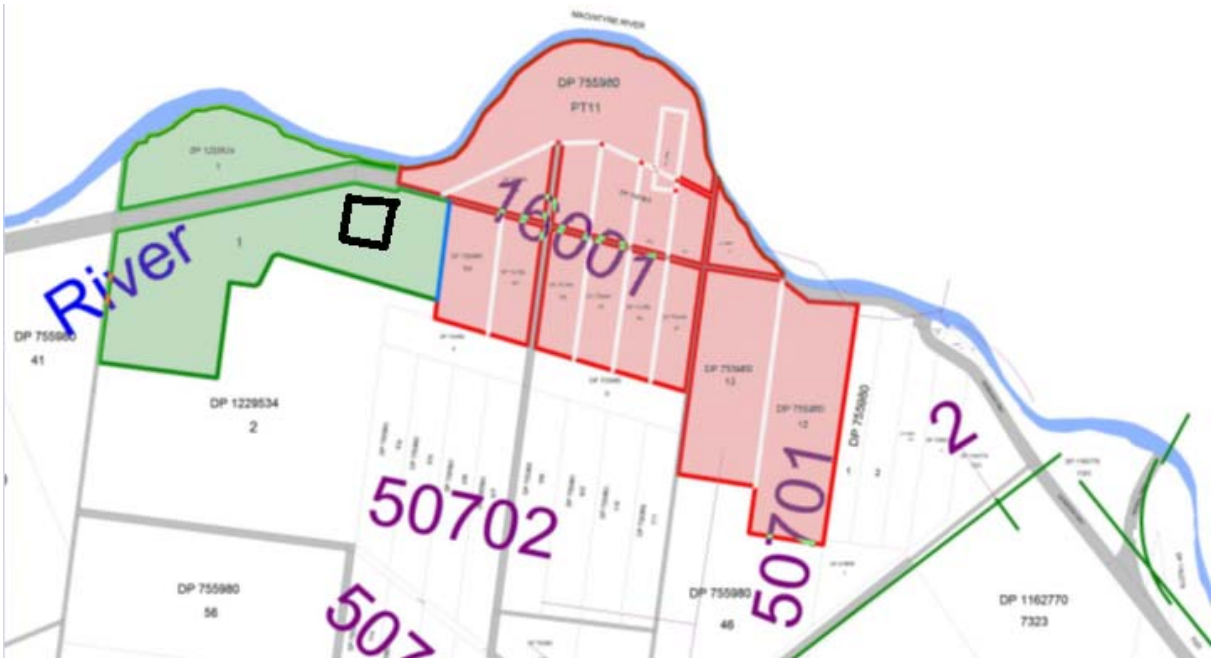


2.2 Public Participation

The development application (**DA**) was publicly notified as required by the provisions of the Moree Plains Development Control Plan 2013 (**DCP**).

The DA was publicly notified for a period of 14 days commencing 23 May 2018 and closing 07 June 2018. The notification included letters to property owners/occupiers if, in the opinion of the Planning and Development Department, the enjoyment of land adjoining the development may be detrimentally affected by the proposed development. Those properties that were notified are indicated in the figure below.

Figure 5 Notification plan – Development site shaded green



During the notification period seven (7) submissions were received with one (1) additional submission received following the notification period. The issues raised in the submissions are detailed as follows:

Issue	Comment
Flood impacts from the proposed chain wire fence becoming blocked with debris and affecting flood heights.	Council's assessment of flooding issues is based information including flood modelling by Cardno Lawson Treloar, flood information from Goondiwindi Regional Council, an assessment of hydraulic blockages and consideration of Geoscience Australia's framework for assessing flood debris. The modelling indicates that flood heights and flow velocities at the site are relatively low during the 1% Annual Exceedance Probability (AEP) flood event. As such the ability for flood waters to carry debris at the subject site are likely to be diminished. The site is located approximately 200 metres from the Macintyre River channel and is protected by existing approved farm levees on adjacent lands to the east. During the 2011 flood the subject land and neighbouring lands adjacent had farm levees of 400-600mm height which acted as something of a low barrier during the flood, albeit in a flood storage area. Some of these levees have since been reduced in height while the majority have been removed entirely, thereby increasing the ability of flood waters to spread south and away from the Macintyre River channel.

	The proposed solar farm and the existing Chillamurra solar farm would be separated by 81 metres. The applicant intends to construct drainage channels to the east and west of the proposed development to better facilitate overland flows to the south and away from the Macintyre River channel. Geoscience Australia has developed a framework for assessing the risk parameters of flood debris. The Debris Variables assessed are debris type and dimensions, debris availability, debris mobility, debris transportability and structure interaction. Based on the Geoscience Australia framework the development site's debris potential classification in a 1% AEP Event can be estimated as being low It is recommended to include a condition of consent (condition 15) requiring the lower section of the fence from ground level to the 1% AEP flood level to remain open, with the exception of steel bars which may be installed at spacings of 200mm. The height of floodwater in the 1% AEP flood event is 0.25-0.5m in the north-eastern parts of the site. This is a precautionary measure to allow improved passage of floodwater and clearance of any minor flood debris during major flood events. The requirement to modify the fence design to facilitate floodwater flows is consistent with the recommendation made by engineers Peter Leeson Pty Ltd in the submission from Goondiwindi Regional Council.
The raising of any new or existing roads giving access to the site from any existing maintained Council or state controlled road	The proposed development does not involve the raising of any existing roads, or the construction of any new roads. The proposed public access roads include Kentucky Lane, Gunsynd Way and Carrigan Road.
The construction of any banks as part of the development	The proposal does not involve the construction of any new banks or levees. The proposed development site requires minor levelling works to ensure that the site drains to the south. The existing average ground level at the subject site is 215.7m AHD. The proposed earthworks will involve minimal cut and fill to result in final ground level of approximately 215.9m AHD. The southern section will be lowered and the northern section will be slightly raised for drainage purposes.

Concern regarding the fencing type required for Chillamurra solar farm development (DA2016/44) as determined by JRPP on 7 September 2016	Condition number 19 of the consent addresses the solar farm fence with respect to potential flood impacts from accumulated debris. Condition number 19 provides as follows: *"The potential impacts of the proposed fence, if it were impacted by substantial debris, is to be reviewed to assess the potential impacts on the modelled flood levels. In this regard, should a measurable impact be determined, the style of fencing shall be modified to avoid any measurable impacts on flood levels."* In response to this condition the applicant submitted a Flood and Debris Assessment which utilised flood modelling of the area by Cardno Lawson Treloar. The assessment concluded that the potential debris accumulation on the fence was unlikely to have any measurable impact on flood levels in the area. This is on the basis that the area experiences shallow water depths and low flood velocities, thereby reducing the potential for debris to be carried by the water. A copy of the Flood and Debris Assessment for DA2016/44 has been provided to Goondiwindi Regional Council. to address their concerns on this matter.
Degradation of Kentucky Road	The proposal has a legal and practical access along Kentucky Road, which is a gravelled public road, owned by the NSW Crown Lands Office. As such the applicant has a legal right to utilise Kentucky Road to access the development site. Depending on weather conditions and transport of materials the applicant may also utilise legal access via Carrigan Road. Draft conditions 16 and 27 require the applicant to undertake a dilapidation report on Kentucky Road prior to the commencement of construction works. The dilapidation report would be produced by an independent road assessor with input from a local resident representative. Post-construction the applicant would be responsible for restoring Kentucky Road to its previous condition or better. Restoration works require the concurrence of NSW Crown Lands which has been problematic in the past. Council has been advised that the process for such works has been streamlined under the new Crown Lands Management Act 2016, which was enacted 1st July 2018

Future developments in the area	The proposed development is being undertaken by a different proponent and is a separate facility to the existing Chillamurra Solar Farm. In addition, the application submitted does not include additional stages of development. The applicant has not advised of any plans to develop beyond the current proposal. Any future development would be subject to the approvals process on its own merit and is not the subject of the current application. The proposed solar farm is separated from the Chillamurra solar farm by some 81 metres so there will be a significant break between the two developments. The applicant intends to construct a drain between the two solar farms to provide an escape for overland water flows. Council has a current proposal to rezone land to the east of the proposed Kentucky Road solar farm. The proposal is to rezone land adjacent to the Macintyre River to R5 Large Lot Residential and land further south to RU4 (see proposed zoning plan in Figure 4). Council intends to complete a Development Control Plan (DCP) chapter to manage development on the rezoned land. The DCP chapter would form part of a planning framework aiming to limit long-term incremental impacts on the Goondiwindi town levee.
Access implications for neighbours to the west of the development site	The proposal does not include any changes to the existing access network. The recently constructed dwelling is located on Lot 1 DP 1236244 and is not situated within an access thoroughfare. A road exists along the northern edge of nearby cropping lands. It is acknowledged that the legal (mapped) and practical (physical road) components of access provision in this area do not fully align, as is often the case in rural areas.
Concerns regarding the apparent lack of a Floodplain Vegetation Management Plan for the adjacent dwelling on the subject allotment, as required by the consent for DA2016/37.	Council approved a dwelling on the subject land in late 2016 (DA2016/37). Condition number 38 in the consent required an address of vegetation management with respect to flooding. Condition No. 38 provided as follows: *38. The applicant shall submit a Floodplain Vegetation Management Plan to Council for endorsement prior to the issue of a final Occupation Certificate. The plan must describe how vegetation on site will be managed with respect to flood risk.*

	The intent of this condition is to consider ongoing vegetation management on the land with respect to flood impacts. It is important to note that such plans are not prescribed by any land use planning legislation in NSW. It is also important to note that agricultural cropping does not require development consent on RU1 rural-zoned land. The applicants have not yet received a final occupation certificate. However, details of the Floodplain Vegetation Management Plan have been submitted and Council is aware that the applicants have commenced works to improve flood passage across the land. This includes the clearing of a significant area of box thorn bushes which had previously impeded water flows near the Macintyre River. Further removal of box thorns is proposed along the western sections of the riverbank.

2.3 Referrals

Internal - Council Engineering Department

External – NSW Office of Environment and Heritage

NSW Office of Environment and Heritage (OEH)were consulted due to the flooding issues relevant to the proposal. Advice was sought to assist in the assessment being made by Council staff. OEH are not a statutory concurrence authority for this Development Application.

OEH reviewed the flood information provided by the applicant and responded as follows:

"OEH has reviewed the report and in summary:

- Is not satisfied with the flooding technical data and conclusions of the initial Statement of Environmental Effects and subsequent response to OEH
- Stress the need for 2D flood modelling and flood sensitivity analysis in this area prior to approval of the application"

Council staff comment:
The information provided by the applicant to address flooding issues includes flood modelling by Cardno Lawson Treloar, flood information from Goondiwindi Regional Council, an assessment of hydraulic blockages and consideration of Geoscience Australia's framework for assessing flood debris. This information and ancillary data was compiled and presented by SMK Consultants on behalf of the applicant. Council staff consider that the information submitted by the applicant provides an adequate basis for an informed flood assessment.

However in light of the comments made by OEH, Council staff have arranged for the proposal to be reviewed by an independent flood expert.

The following key items have been identified with respect to flooding and the proposed development:

1) Cardno Lawson Treloar developed a flood model between 2007 and 2012 which encompasses the subject site and surrounds. This model was completed for a proposed rural/residential rezoning on neighbouring lands and has been reviewed by OEH flood experts. Following review of the flood model OEH did not object to the model or to the progression of the rezoning.

2) Flood heights and flow velocities at the site are relatively low;

3) The site is moderately protected by existing approved farm levees on adjacent lands to the east;

4) During the 2011 flood the subject land and neighbouring lands adjacent had farm levees of 400-600mm height which acted as something of a low wall during the flood, albeit in a flood storage area. Some of these levees have since been reduced in height while the majority have been removed entirely, thereby increasing the ability of flood waters to spread south and away from the Macintyre River channel;

5) The proposed solar farm and the existing Chillamurra solar farm would be separated by some 81 metres. The applicant intends to construct drainage channels to the east and west of the proposed development to better facilitate overland flows to the south and away from the Macintyre River channel. The fall of the land and proposed channel gradients suggests that the drainage channels could reduce flood heights in the Macintyre River area;

6) It is recommended to include a condition of consent requiring the lower section of the fence from ground level to the 1% AEP flood level to remain open, with the exception of steel bars which may be installed at spacings of 200mm. The height of floodwater in the 1% AEP flood event is 0.25-0.5m in the north-eastern parts of the site. This is a precautionary measure to allow improved passage of floodwater and clearance of any minor flood debris during major flood events;

7) The subject site and adjacent lands are zoned RU1 Primary Production under the Moree Plains Local Environmental Plan 2011. Development for the purposes of 'agriculture' does not require approval in the RU1 zone. As such a land owner could conceivably build a fence or structure for agricultural purposes without any opportunity for scrutiny by land use planning authorities (e.g for stock such as deer which require a chain wire fence of similar height). The difference with this proposal is that the fence surrounds a development which requires consent.

Discussion:
The Bureau of Meteorology recorded a flood peak of 10.64m at Goondiwindi in the 2011 flood. This is marginally below the Q100 flood level of 10.68m as predicted by Goondiwindi Regional Council's Flood Response Procedure.

During the 2011 flood event at the site, water had overtopped the farm levee along the northern edge of the paddock, just north of the proposed development site, which was approximately 400-600mm high (since reduced in height with parts removed). The owner of the land in January 2011 reported that the cotton crop was approximately 1 metre high and that the floodwater in the crop was no more than 0.3 metres deep and very slow moving (consistent with the Cardno modelling).

The modelling shows that the flood depth in a 1% AEP flood event varies across the site from 0.25-0.75m, with heights of 0.25-0.5m in the north-eastern part of the site. The modelling shows a general flow pattern across the development site to be in an east to west direction.

Flood velocities determined from the model indicate that the north-eastern portion of the site would be subject to velocities between 0.10 to 0.25 metres per second and the south-western portion of the site would be subject to velocities between 0.25 to 0.50 metres per second. These velocities are considered relatively slow and non-scouring over bare or grass-covered ground.

Velocities of 0.1 to 0.25 m/s would be considered depositional as silt and debris would not tend to be carried by this flow. At 0.5 m/s, silt may remain in the flow but heavy debris (logs, sticks) would more than likely settle. Lighter debris (roly poly, crop stubble, grass) would generally be carried and continue to move at this flow velocity. Any plant cover on the ground would remain stable.

The modelling shows that the development is located on the downstream edge of an area of relatively shallow, slow moving water in a 1% AEP flood event. Given its proximity to the river, the solar farm is considered to be located on the fringe of the main flood channel. Modelling of the area indicates that the development is not located in a primary flow path.

The last major flood event impacting the subject site occurred in 2011, at which time the site contained a fully established cotton crop and additional levee works that have since been removed.

The main flow direction of water is east to west. The proposed drainage channels will allow an improved release of overland water flows to the west and to the south. As such it is considered that the proposed solar farm will not impose any significant additional blockage to the passing of flood water. It is likely that the proposed drainage works may actually increase the ability of overland water flows to escape to the south.

All infrastructure associated with the solar farm would need to be enclosed within a security fence as part of the required public safety considerations, due to the high "open terminal" voltages produced by the arrays. The proposal therefore involves construction of a chain link fence. The fence will restrict access and prevent people and wildlife intrusion on the site. Condition 15 requires the fence design to be modified in order to better facilitate water flows in the event of a flood.

Consideration of the nature and character of flood debris is critically important in the assessment of this proposal. Geoscience Australia has developed a framework for assessing the risk parameters of flood debris, as outlined below.

3. Debris Variables

   i. *Debris Type and Dimensions.* The location of the development is not heavily forested, resulting in a limited amount of medium (150 mm to 3 m long) to large (more than 3m long) sized debris. Most small (<150mm) debris should pass through the gaps in a chain mesh fence, and allowing larger gaps in the fence provides additional relief and less opportunity for bridging of the gaps by larger debris.

   ii. *Debris Availability.* The source area for debris is predominantly characterised by agricultural land use patterns, featuring extensive flat areas of land cleared of trees and rocks. This limits the availability of debris and thus the site achieves a low likelihood rating on debris availability (Geoscience Australia, Table 6.6.1).

   iii. *Debris Mobility.* The lack of slope at this location limits the mobility of debris and thus the site achieves a low likelihood rating for debris mobility (Geoscience Australia, Table 6.6.2).

iv. *Debris Transportability.* The low modelled and observed flood velocities and the shallow depth of flood and the limited period of submersion at the development site limit debris transportability, particularly medium to large sized debris and thus the site achieves a low likelihood rating for debris transportability (Geoscience Australia, Table 6.6.3).

v. *Structure Interaction.* Most of the debris being carried by a flood at this location (i.e. out of the main channel) would be small and should pass through the structure easily. The design of the flood relief in the fence can be altered and orientated to provide greater accommodation of the predicted direction of flow.

The development site's debris potential classification in a 1% AEP Event can be estimated overall as being low (Geoscience Australia, 2016: Table 6.6.4). If a more conservative approach is adopted, and two of the above variables being considered are rated as medium likelihood, the site can still achieve a low likelihood overall.

WMA Water (2016) comments on the difference between a visual blockage and a hydraulic blockage that causes significant impacts on flood behaviour. They noted that a dramatic looking "blockage" may have almost no impact on flood levels if the debris is highly porous and the flow velocity is relatively low. The nature of debris at this location is considered likely to be relatively porous and the flow velocity is low as demonstrated by the flood modelling.

The Cardno Lawson Treloar flood modelling identifies that in a 1% AEP event the water flow rates in the main channel of the Macintyre River are typically 1.8 to 2.0 m/s while the water flow rates over the flood plain range typically between 0.2 to 0.9 m/s. Whilst it is noted that the objectors have noticed fast flowing floodwater in some part of the extensive Goondiwindi flood plain, given what is known about the site, these observations would not have been made at the site in question and would be more consistent with active channel flows. The assessment of risk relating to the impact of debris on the proposed fence therefore remains low.

With respect to the development structures it is required that these be built using flood compatible materials with the solar panels and all sensitive ancillary infrastructure built at a height greater than the Probable Maximum Flood (PMF).

2.4 Section 4.15 assessment

In determining a DA, a consent authority is to take into consideration matters referred to in section 4.15(1) of the EPA Act (previous s 79C) as are of relevance to the development the subject of the application. The relevant matters for this application are detailed below:

a) 4.15 Evaluation– any environmental planning instrument; any proposed instrument that is or has been the subject of public consultation under this Act and that has been notified to the consent authority, any development control plan, any planning agreement entered into under Section 7.4 or any draft planning agreement that a developer has offered to enter into under Section 7.4, and the Regulations;

Environmental Planning & Assessment Act, 1979 and Environmental Planning & Assessment Regulation, 2000

Designated development
Schedule 3 of the EP&A Regulation indicates "Electricity generating stations" such as solar farms are considered designated development under the EP&A Act and associated regulations where the development generates more than 30 megawatts of electrical power.

The proposed development is predicted to generate a maximum of 4.999 megawatts. Therefore, the proposal is not considered designated development.

Integrated development
The solar farm is not considered integrated development under Division 4.8 of the EP&A Act because the solar farm does not require any additional approval / permit / licence / authorisation under the:

- Fisheries Management Act 1994;
- Heritage Act 1977;
- Mine Subsidence Act Compensation Act 1961;
- Mining Act 1992;
- National Parks and Wildlife Act 1974
- Petroleum (Onshore) Act 1991;
- Protection of the Environment Operations Act 1997;
- Roads Act 1993;
- Rural Fires Act 1997; or
- Water Management Act 2000.

Biodiversity Conservation Act 2017

The Biodiversity Conservation Act 2017 provides a basis for the Biodiversity Offset Scheme (BOS). Development that is subject to the BOS scheme includes development needing consent under Part 4 of the EP&A Act (excluding complying development), activities under Part 5 of the EP&A Act, State significant development and State significant infrastructure.

Where development or an activity is, "likely to significantly affect threatened species", a Biodiversity Development Assessment Report (BDAR) must be prepared and consent authorities are required to consider the likely impact of the proposed development on biodiversity values before granting approval.

The threshold test of whether development or an activity is "likely to significantly affect threatened species" (and therefore whether a BDAR is required) is reached if:

- The test in section 7.3 of the BC Act is met;
- The BOS Threshold is met; and
- The development is carried out in a declared area of outstanding biodiversity value.

The subject lot was assessed using the online Biodiversity Offsets Scheme Entry Tool, which determines whether any proposed clearing would be above or below the area thresholds or lies within an area mapped as having high biodiversity value.

The proposed development site is not located within a declared area of outstanding biodiversity value, and the proposal does not involve any clearing of vegetation that would exceed the BOS Threshold. The site is developed for agriculture and at present, predominately supports crop production.

A test of significance determined that the proposal is not likely to significantly affect threatened species, and that further assessment under the BAM and the preparation of a BDAR is not required.

State Environmental Planning Policies

State Environmental Planning Policy No 44—Koala Habitat Protection
This Policy aims to encourage the 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.

The land included in the local government areas listed under Schedule 1 is subject to assessment under this Policy. The Moree Plains Shire is listed in Schedule 1 of SEPP 44 and therefore an assessment of Koala Habitat is required.

The subject site is utilised for crop production and has been cleared of all native vegetation. The site therefore does not contain primary or secondary feed trees (western slopes and plains region) which may be utilised by local Koala populations. As such, the site is not considered to constitute potential koala habitat as defined under SEPP 44.

Habitat for Koalas may be present within the wider locality, such as within the riparian corridor of the Macintyre River (approximately 200m north of the development site), or within scattered vegetation located on grazing land to the north and west of the development site. Habitat values of the riparian corridor and surrounding locality will not be disturbed by the proposed development.

On this basis, the requirements of the SEPP 44 do not require further investigation.

State Environmental Planning Policy No 55 – Remediation of Land
The Remediation of Land SEPP aims to promote the remediation of contaminated land for the purpose of reducing the risk of harm to human health or other aspects of the environment.

Under this SEPP, a consent authority must not consent to the carrying out of any development on land unless:

i) It has considered whether the land is contaminated, and

ii) If the land is contaminated, it is satisfied that the land is suitable in its contaminated state (or will be suitable, after remediation) for the purpose for which the development is proposed to be carried out, and

iii) If the land requires remediation to be made suitable for the purpose for which the development is proposed to be carried out, it is satisfied that the land will be remediated before the land is used for that purpose.

The aim of SEPP 55 is to provide for the remediation of contaminated land for the purpose of reducing the risk of harm to human health or the environment and requiring that any remediation work meet certain standards and notification requirements. The previous use of the site was for agricultural activities such as cropping and there is no evidence to suggest that the site is or might be contaminated to a level that would impact on the proposed use.

State Environmental Planning Policy (Infrastructure) 2007

Pursuant to cl.34(7) of State Environmental Planning Policy (Infrastructure) 2007 (ISEPP), development for the purpose of a solar energy system may be carried out by any person with consent on any land. Accordingly, the proposed solar farm (which is a photovoltaic electricity generating system) is permissible subject to development consent being issued.

State Environmental Planning Policy (Rural Lands) 2008
The aims of this Policy are as follows:

a) To facilitate the orderly and economic use and development of rural lands for rural and related purposes,

Comment: The proposal is for the use of rural land for energy generation purposes and is considered to comply with this aim.

b) To identify the Rural Planning Principles and the Rural Subdivision Principles so as to assist in the proper management, development and protection of rural lands for the purpose of promoting the social, economic and environmental welfare of the State,

Comment: The proposal is considered to be in accordance with the Rural Planning Principles (reproduced below). The Rural Subdivision Principles do not apply as no subdivision of land is proposed.

c) To implement measures designed to reduce land use conflicts,

Comment: The proposal is considered to be compatible with adjacent land uses which are predominately agricultural. Flooding issues raised with respect to the Goondiwindi levee have been addressed by flood modeling and data provided by the applicant, the proposed drainage regime better accommodating overland water flows and amendments to the perimeter fence required by condition 15.

d) To identify State significant agricultural land for the purpose of ensuring the ongoing viability of agriculture on that land, having regard to social, economic and environmental considerations,

Comment: The subject land is not mapped as being Biophysical Strategic Agricultural Land in the New England North West Regional Plan 2036. The proposal would complement the agricultural use of the balance of the property.

e) To amend provisions of other environmental planning instruments relating to concessional lots in rural subdivisions.
Comment: Not relevant

Rural Planning Principles
The Rural Planning Principles are as follows:

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

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

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

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

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

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

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

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

The proposed development is considered to be compatible with adjacent land uses. It is expected that the proposal would not cause land use conflict in the area and would complement existing agricultural operations.

State Environmental Planning Policy (State and Regional Development) 2011
The State and Regional Development SEPP identifies significant development and infrastructure and confer functions on Joint Regional Planning panels to determine development applications.

The application is classified as 'Regional Development' and has been assessed by Moree Plains Shire Council for determination by the Northern Joint Regional Planning Panel in accordance with this SEPP.

The New England North West Regional Plan 2036 (the Plan), published in 2017, recognises the potential for the growth of the renewable energy industry within the Moree Plains Shire and the surrounding region.

The Plan outlines a total of nine Strategic Directions for the North West Slopes and Plains region in NSW. Strategic Direction Number 5 is to 'Grow New England North West as the renewable energy hub of NSW'. The Plan encourages the following actions be taken to achieve this goal:

a) Diversify the energy sector by identifying renewable energy resource precincts and infrastructure corridors with access to the electricity network; and

b) Facilitate appropriate smaller-scale renewable energy projects using biowaste, solar, wind, hydro, geothermal or other innovative storage technologies.

The proposed development is considered to contribute to achieving the outcomes of Strategic Direction Number 5 of the Plan, as it will enable diversification and expansion of energy generation within the region by capitalising on high rates of regional solar penetration.

New England North-West Regional Plan 2036

The New England North West Regional Plan 2036 (the Plan) recognises the potential for growth of the renewable energy industry within the Moree Plains Shire and the surrounding region.

The site is not mapped as comprising Biophysical Strategic Agricultural Land according to Figure 4 of the Plan.

The Plan outlines nine Strategic Directions for the North West Slopes and Plains region in NSW. Strategic Direction Number 5 is to 'Grow New England North West as the

renewable energy hub of NSW'. The Plan encourages the following actions to be taken to achieve this goal:

a) Diversify the energy sector by identifying renewable energy resource precincts and infrastructure corridors with access to the electricity network; and

b) Facilitate appropriate smaller-scale renewable energy projects using biowaste, solar, wind, hydro, geothermal or other innovative storage technologies.

The proposed development is considered to contribute to achieving the outcomes of Strategic Direction Number 5 of the Plan, as it will enable diversification and expansion of energy generation within the region by capitalising on high rates of regional solar penetration.

Moree Plains Local Environmental Plan 2011 (LEP)

Land Use Table

The land is zoned RU1 - Primary Production under the LEP. The zone objectives as provided in the Land Use Table are:

- 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.
- To permit development for certain purposes if it can be demonstrated that suitable land or premises are not available elsewhere.

Under clause 2.3(2) of the LEP, the consent authority must have regard to the objectives for development in a zone when determining a development application in respect of land within the zone. It is considered that the proposed Solar Farm is consistent with the fourth objective as it is unlikely to cause land use conflict. The fifth objective is also relevant to the proposal. The key issue for Solar Farms is being located in proximity to a substation which has sufficient grid capacity, with the Goondiwindi Zone Substation being situated near the site. The proposal is considered to be consistent with the fifth objective for this reason.

Under the LEP, "electricity generating works" are prohibited in the RU1 zone. The permissibility arises from the SEPP Infrastructure 2007, Division 4 (Electricity generating works or solar energy systems), Clause 34 (Development permitted with consent).

Clause 5.10 – Heritage conservation

Heritage was considered during the assessment. In brief, it is concluded that the site does not contain any European heritage items, conservation areas or indigenous places or objects.

The site is not identified as or located near a known Aboriginal Place of Heritage Significance on the Aboriginal Cultural Significance map or in the Moree Plains Aboriginal Heritage Study and therefore no Aboriginal Heritage Impact Assessment is required.

Clause 7.6 Flood Planning

The subject land is identified as flood-prone, however the proposal is for non-habitable development. This assessment is informed by the flood model encompassing the site from Cardno Lawson Treloar which indicates that the site experiences relatively low flood heights and low water flow velocities during the modelled 1% AEP flood event.

3. *Development consent must not be granted to development on land to which this clause applies unless the consent authority is satisfied that the development:*

   a) *Is compatible with the flood hazard of the land, and*
   Comments: The proposal is for the construction of solar farm infrastructure and is considered to be compatible with the flood hazard of the land, being characterised as a flood storage area. The site is subject to relatively low flood heights and velocities. The construction materials are required to be compatible with flooding.

   b) *Is not likely to significantly adversely affect flood behaviour resulting in detrimental increases in the potential flood affectation of other development or properties, and*
   Comments: Due to the proposed development site being considered to be a flood storage area, site design and fence modification requirement (condition 15) it is considered that adverse impacts on flood behaviour are unlikely.

   c) *Incorporates appropriate measures to manage risk to life from flood, and*
   Comments: Upon becoming operational the proposed solar farm would not be occupied by workers apart from periodical servicing and maintenance. The development is in a flood storage area, would include a new drainage regime to facilitate water flows away from the Macintyre River and has a draft condition (#) requiring alterations to the proposed fence to minimise potential for debris build-up. As such the risk to life during flood is considered to be low.

   d) *Is not likely to significantly adversely affect the environment or cause avoidable erosion, siltation, destruction of riparian vegetation or a reduction in the stability of river banks or watercourses, and*
   Comments: The development is not likely to adversely affect the environment or cause erosion, siltation, destruction of riparian vegetation or a reduction in the stability of river banks or watercourses. This is due to the nature of the development, its proposed location and mitigation measures.

   e) *Is not likely to result in unsustainable social and economic costs to the community as a consequence of flooding.*
   Comments: The proposed solar farm would not likely result in unsustainable social and economic costs to the community as a consequence of flooding. Potential impacts on the Goondiwindi levee have been a key consideration in the design and assessment of the proposal. It is considered that the proposal is able to be developed with minimal impact on the Goondiwindi levee. The development is considered to have a low level of susceptibility to flood impacts due to its location, the type of construction proposed and the presence of standard cut-offs switches for the development.

Whilst the proposed development is identified as a flood control lot it meets the objectives of clause 7.6 of the LEP.

Clause 7.7 Places of Aboriginal cultural significance
The development is not located on land identified as "place of Aboriginal cultural significance".

Moree Plains Development Control Plan 2013 (DCP)

Chapter 2 – Parking
The 'Performance Outcomes' of the DCP require new car parks to be sufficient in number and design to provide appropriately for the needs of new developments. Once the infrastructure is installed and operational the only access to the site will be for maintenance and cleaning purposes. In this regard no designated parking is required.

Chapter 4 – Moree & Environs Floodplain Development and Management
The subject land is identified as flood-prone however the proposal is for non-habitable development in the form of solar panels and associated infrastructure. The development is able to be constructed in a way that minimises impacts on flood behaviour and the development itself.

The proposed development meets the 'Performance Outcomes' of the DCP. This assessment indicates that the proposal would not materially increase the risk to life. Consideration of potential impacts on the Goondiwindi levee have been a key focus, as outlined earlier in this report. Risk to property is managed by the sensitive infrastructure being located above the predicted Probable Maximum Flood.

Chapter 9 – Rural Development
This chapter addresses various aspects of rural development including biodiversity, bushfire management, recreational vehicles, feedlots, access to rural properties and dwelling development.

Biodiversity:

1. *Proposals falling within areas mapped as Koala Habitat undertake a review of the potential impacts on Koala Habitat as required by SEPP 44.*
   Comment: SEPP 44 has been addressed in section 4.3.3 and it was determined that the subject area does not contain any potential or core koala habitat as defined within the provisions of SEPP 44. On this basis, the requirements of SEPP 44 do not necessitate further considerations in this assessment.

2. *Proposals are reviewed against the provisions of the NSW Threatened Species Conservation Act and the NSW Planning Guideline, Commonwealth Environmental Protection and Biodiversity Conservation Act 1999 Guide to implementation in NSW May 2007, by an appropriately qualified and experienced ecologist or environmental scientist, and, if necessary, appropriate additional environmental investigations are conducted.*
   Comment: The NSW Threatened Species Conservation Act was replaced by the Biodiversity Conservation Act. The requirements of this Act have been addressed in Section 4.3.2 and Appendix 9.

3. *Where proposals would significantly affect areas of native vegetation, a review by an appropriately qualified and experienced ecologist or environmental scientist is undertaken as to the potential impact on wildlife habitat corridors.*

Comment: The proposed development does not involve any additional clearing and is not considered to have a significant effect on any area of native vegetation. The proposal is therefore considered to be consistent with the performance outcome for biodiversity "to address biodiversity issues when the development is proposed so as to ensure appropriate weight is given to management of the natural environment as part of the consideration of proposals".

Bushfire Management:
The subject land is not identified as being bushfire-prone land.

The site and surrounding land uses currently consist of cropping and grasslands used for grazing. Such land is considered to be managed vegetation which presents a relatively low fire risk. However, to address bushfire risk an Asset Protection Zone (APZ) should be established around the development site.

An APZ is an area between a bushfire hazard and buildings/development, which is managed to reduce fuel loads surrounding buildings to provide a barrier between buildings and bushfires which may occur within the region. The size of APZs varies depending upon the fire hazard each site (which depends upon site factors such as topography, vegetation type and levels of construction).

It is recommended that the development maintain a 10m APZ, which will comprise of 10m of Inner Protection Area (IPA).

An IPA is defined as "the inner component of an asset protection zone, consisting of an area maintained to minimal fuel loads and comprising a combination of perimeter road, fire trail, rear yard or reserve, so that a fire path is not created between the hazard and the building."

The APZ should be maintained to ensure fuel load is minimised, through measures such as mowing of grasses and weeds. The APZ must be maintained within the boundaries of the development property (i.e. within Lot 1, DP 1236244).

Access to Rural Properties:
The proposal has existing access via Kentucky Road which is a Crown public road. The proposal is therefore considered consistent with the performance outcome for access to rural properties to ensure "the development provides safe, convenient and readily maintainable access from a public road".

Draft conditions 16 and 27 require the road condition to be checked prior to the development and post-development to assess the need for restoration /improvement works post-construction or to facilitate construction access.

Chapter 10 – Notification Policy
The proposal was notified to the adjoining owners including property owners in nearby areas of Goondiwindi. During the notification period seven (7) submissions were received with one (1) additional submission received following the notification period. The issues raised in the submissions are outlined earlier in this report.

The proposed development complies with all aspects of Moree Plains Development Control Plan 2013.

b) Section 4.15(1)(b) – the likely impacts of the development, including environmental impacts on both the natural and built environments, and social and economic impacts on the locality:

It is considered that the likely impacts of the development including design, height, car parking, traffic, flood impacts and drainage have been satisfactorily addressed.

The proposed development has been designed in compliance with the acceptable solutions of the DCP and it is believed that the proposed development will not have any unfavourable social or environmental impacts.

c) Section 4.15 (1)(c) - the suitability of the site for development;

In considering the suitability of the site for the development Council should have regard to the zoning of the site and its objectives under the current environmental planning instrument (LEP) and the permissibility of the development under the LEP. Under the LEP, "electricity generating works" are prohibited in the RU1 zone. However the proposal is permissible under the SEPP Infrastructure 2007, Division 4 (Electricity generating works or solar energy systems), Clause 34 (Development permitted with consent). In terms of assessing the various aspects of the proposal, direction has been taken from the planning principles adopted by the Land and Environment Court of NSW.

Davies v Penrith City Council [2013] NSWLEC 1141

In this case, Moore, SC revised the *criteria for assessing impact on neighbouring properties within this Planning Principle.*

The following questions are relevant to the assessment of impacts on neighbouring properties:

- *How does the impact change the amenity of the affected property? How much sunlight, view or privacy is lost as well as how much is retained?*
  Comment: The impacts from the proposal would be limited in the context of an agricultural environment. Sunlight availability, views and privacy for adjacent lands are not considered to be problematic issues.

- *How reasonable is the proposal causing the impact?*
  Comment: The proposal is considered to cause minimal impacts on adjacent lands. The assessment of flood impacts indicates that flood risk is able to be adequately managed. On this basis the proposal is considered to be reasonable.

- *How vulnerable to the impact is the property receiving the impact? Would it require the loss of reasonable development potential to avoid the impact?*
  Comment: The proposal would not act to reduce the development potential of adjacent lands.

- *Does the impact arise out of poor design? Could the same amount of floor space and amenity be achieved for the proponent while reducing the impact on neighbours?*
  Comment: The proposal is not considered to cause any significant impacts.

- *Does the proposal comply with the planning controls? If not, how much of the impact is due to the non-complying elements of the proposal?*
  Comment: The proposal in accordance with the relevant planning controls.

Project Venture Developments Pty Ltd v Pittwater Council [2005] NSWLEC 191

In this case, Roseth, SC provided direction on considering *compatibility in the urban environment*.

- *There are many dictionary definitions of compatible. The most apposite meaning in an urban design context is capable of existing together in harmony. Compatibility is thus different from sameness. It is generally accepted that buildings can exist together in harmony without having the same density, scale or appearance, though as the difference in these attributes increases, harmony is harder to achieve.*

- *It should be noted that compatibility between proposed and existing is not always desirable. There are situations where extreme differences in scale and appearance produce great urban design involving landmark buildings.*

- *Where compatibility between a building and its surroundings is desirable, its two major aspects are physical impact and visual impact. In order to test whether a proposal is compatible with its context, two questions should be asked.*

    1. *Are the proposal's physical impacts on surrounding development acceptable? The physical impacts include constraints on the development potential of surrounding sites.*

    2. *Is the proposal's appearance in harmony with the buildings around it and the character of the street?*

- *The physical impacts, such as noise, overlooking, overshadowing and constraining development potential, can be assessed with relative objectivity. In contrast, to decide whether or not a new building appears to be in harmony with its surroundings is a more subjective task. Analysing the existing context and then testing the proposal against it can, however, reduce the degree of subjectivity.*

The proposal is considered to meet the relevant objectives of the RU1 - Primary Production zone, complies with the flood planning clause of the LEP and performance outcomes of the DCP. On this basis the development is considered generally appropriate for the site.

The subject site is considered suitable for the proposed development for the following reasons:

- The subject site is within a rural/agricultural area and is considered to be appropriate for large-scale solar development
- The proposed development is compatible with existing land uses in the locality
- The proposed development would not cause land use conflict
- Access to the subject site is available from Kentucky Road and Gunsynd Way.
- Upon decommissioning of the solar farm (should this occur), the land can be restored to its previous form.

d) Section 4.15 (1) (d) – any submissions made in accordance with the Act or the Regulations;

As discussed earlier.

e) Section 4.15 (1) (e) – the public interest.

The proposal has been designed in line with the adopted standards of the DCP and as such, development consent of this proposal will not undermine the public interest.

3. Recommendation

It is recommended that DA2018/40 be approved subject to the draft conditions contained in Appendix 1.

APPENDIX 1 – DRAFT CONDITIONS OF CONSENT

SCHEDULE B
ADMINISTRATIVE CONDITIONS

Development Description

1. Except as amended by the conditions of this consent, development consent is granted only to carrying out the development as described in Schedule A.

Development in Accordance with Plans

2. The Applicant shall carry out the development generally in accordance with the:

   a) Statement of Environment Effects dated April 2018; and

   b) Environmental Planning and Assessment Act and Environmental Planning Instruments (where applicable), the Local Government Act, the Plumbing and Drainage Act and other applicable statutory codes or legislation

   c) Following drawings, except for any modifications:

      i) Which are Exempt' or Complying Development;

      ii) Otherwise provided by the conditions of this consent.

Drawings prepared by SMK Consultants			
Drawing No.	Revision	Name of Plan	Date
		Site Plan	

Inconsistency Between Documents

3. If there is any inconsistency between the plans and documentation referred to above, the most recent document shall prevail to the extent of any inconsistency. However, conditions of this approval prevail over endorsed plans and documents. Where there is an inconsistency between approved elevations and plans, the elevations prevail.

Limits of Approval

4. This consent will lapse five years from the date of consent unless the works associated with the development have physically commenced.

SCHEDULE C
PERFORMANCE CONDITIONS

BEFORE COMMENCEMENT OF WORKS

Construction certificate required

5. Prior to commencement of any works, it is necessary to obtain a Construction Certificate. A Construction Certificate may be issued by Council or an Accredited Certifier. Plans submitted with the Construction Certificate are to be amended to incorporate all relevant conditions of the development consent. A Construction Certificate issued by a Private Accredited Certifier is to be deposited with Council at least 48 hours prior to the commencement of any works.

   (Reason: Statutory requirement)

Utility Services

6. Prior to the commencement of work the Applicant is to negotiate with the utility authorities in connection with the relocation and/or adjustment of the services affected by the development. Any necessary alterations to, or relocations of, utility services must be carried out at no cost to the council.

   (Reason: Protection of infrastructure)

BEFORE ISSUE OF A CONSTRUCTION CERTIFICATE

Section 7.12 Development Contributions

7. In accordance with Division 7.1 of Part 7 of the Act, the Applicant shall pay the following section 7.12 (formerly section 94A) monetary contributions:

   a) $60,000.00, being 1% of the cost of carrying out the development as determined by the Council in accordance with Act and Regulations

   b) The contribution shall be paid in the form of cash or bank cheque, made out to Moree Plains Shire Council. Evidence of the payment to Council shall be submitted to the Certifying Authority prior to the issue of the Construction Certificate.

   c) The contributions will be adjusted in accordance with the requirements of the Moree Plains Development Contributions Plan 2006.

   (Reason: To contribute to the overall level of public services needed as a result of new developments)

Prescribed conditions of development consent

8. In accordance with the Act, the following conditions are prescribed for development that involves building work:

   a) That the work must be carried out in accordance with the requirements of the National Construction Code,

   b) In the case of residential building work for which the Home Building Act 1989 requires there to be a contract of insurance in force in accordance with Part 6 of that Act, that such a contract of insurance is in force before any building work authorised to be carried out by the consent commences.

   (Reason: Statutory requirement)

Long Service Levy

9. For work costing $25,000 or more, a Long Service Leave Levy shall be paid. For further information please contact the Long Service Payments Corporation on their Helpline 13 1441.

   (Reason: Statutory requirement)

Footing System Requirements - General

10. The Applicant shall provide the Certifying Authority with detailed design drawings for the footing system certified by a practising structural engineer as compliant with the relevant sections of Part 3.2 'Footings and Slabs' of the BCA prior to the issue of a Construction Certificate.

    The footing system shall be designed for an 'E-D' (Extremely reactive clay sites which can experience extreme deep-seated ground movement from moisture changes) class site in accordance with Part 3.2.4 'Site classification' of the BCA unless accompanied by a detailed Site Classification Report from an appropriately qualified and accredited professional.

    (Reason: Structural safety)

Structural Adequacy Certificate

11. The Applicant shall provide the Certifying Authority with certification from a practicing structural or civil engineer with relevant experience in flooding that the proposed development can withstand the expected flood velocities, including scour, debris and buoyancy forces prior to the issue of a Construction Certificate.

    (Reason: Structural safety and floodplain risk management)

12. All sensitive equipment and the solar panels shall be located a minimum of 350mm above the Probable Maximum Flood (PMF).

    (Reason: Floodplain risk management)

Flood compatible materials

13. Materials used for structural and operational purposes and located below the PMF must be capable of resisting damage, deterioration, corrosion or decay taking into account the likely time the material would be in contact with flood water and the likely time it would take for the material to subsequently dry out.

    (Reason: Floodplain risk management)

    Note: Materials used for structural purposes include loadbearing columns, bracing members, structural connections, fasteners, wall framing members and the like. Operational purposes include wiring, control devices and the like.

Site Environmental Management Plan

14. A site environmental management plan (SEMP) shall be submitted to Council for endorsement prior to the issue of a Construction Certificate. The SEMP shall address, at minimum, the following issues:

    a) Construction:

        i) Disposal of wastes (noting any potential limitations on cross-border waste disposal)

        ii) Source and type of any imported fill

        iii) Dust management

        iv) Erosion and sedimentation controls

    b) Operation:

        i) Noise management

        ii) Dust management

        iii) Weed and vermin management

        iv) Land management including vegetation management

        v) Flooding and debris issues

        vi) Proposed methods of remediation at the cessation of the development

    c) Post-Development

        i) Monitoring and mitigation measures for future rehabilitation remedial actions

    (Reason: Environmental protection)

Fence Design

15. The security fence design shall incorporate the following features:

    a) The lower section of the fence and gates from ground level to at least the height of the 1% AEP event shall remain open, with the exception of steel bars which may be installed at spacings of 200mm;

    b) Chain mesh fencing material may be installed above the heights of the requirements of sub-clause a) above, to the preferred design height, with a minimum mesh diamond size of 100mm;

    c) Details shall be submitted to and approved by the Certifying Authority prior to the issue of a Construction Certificate.

    (Reason: Floodplain risk management)

Public road condition

16.

a) The applicant shall undertake a dilapidation report on Kentucky Road prior to the issue of a Construction Certificate. The dilapidation report shall be produced by an independent road assessor with input from a local resident representative and Moree Plains Shire Council.

b) Any required works needed to facilitate construction access shall be undertaken prior to construction commencement while any works required to bring the road to the same or better standard than pre-construction shall be conducted post construction and verified by the independent road assessor.

c) The applicant shall contact NSW Crown Lands to make any necessary arrangements for any works.

d) Any works needed are to be at the sole cost of the proponant.

(Reason: Public road maintenance)

Note: Council can provide advice on appropriate reporting/auditing methodologies for gravel road assessment as they are not commonly assessed.

DURING CONSTRUCTION

Erosion and Sediment Control

17. Run-off and erosion controls must be effectively maintained until the site has been stabilised and landscaped.

(Reason: Environmental protection)

Toilet facilities

18. Toilet facilities must be provided on the work site at the rate of one toilet for every 20 persons or part of 20 persons employed at the work site. Each toilet provided must:

a) Be a standard flushing toilet, connected to a public sewer, or

b) If connection to a public sewer is not available, to an on-site effluent disposal system approved by the council, or

c) A portable toilet.

(Reason: Health and amenity)

Approved Plans to be on-site

19. A copy of the approved and certified plans, specifications and documents incorporating conditions of approval and certification shall be kept on the Subject Site at all times and shall be readily available for perusal by any officer of Council or the PCA.

(Reason: To ensure compliance with approved plans)

Site Notice

20. A sign must be erected in a prominent position on any site on which building work, subdivision work or demolition work is being carried out:

    a) Showing the name, address and telephone number of the principal certifying authority for the work, and

    b) Showing the name of the principal contractor (if any) for any building work and a telephone number on which that person may be contacted outside working hours, and

    c) Stating that unauthorised entry to the work site is prohibited.

    Any such sign is to be maintained while the building work, subdivision work or demolition work is being carried out, but must be removed when the work has been completed

    (Reason: Statutory requirement)

Maintenance of site

21.

    a) Building materials and equipment must be stored wholly within the work site unless an approval to store them elsewhere is held.

    b) Waste materials must be disposed of at a waste management facility.

    c) The work site must be left clear of waste and debris at the completion of the works.

    (Reason: To ensure that building and any other site works are undertaken in a manner which will be non-disruptive to the local area.)

Source and content of imported fill

22. The person responsible for importing fill to the site shall provide validation by way of a statutory declaration confirming the source and content of the fill to ensure that it is suitable for the proposed land use and free from contamination. Details are to be provided to Council prior to the pouring of any slab or footings.

    (Reason: To ensure that imported fill is of an acceptable standard for environmental protection purposes)

Requirements for General Utilities – flood hazard areas

23.

    a) Utilities and related equipment must not be placed below the PMF unless they have been designed specifically to cope with flood water inundation.

    b) Buried systems must be placed at a depth sufficient to prevent damage due to scour and erosion during the PMF

    c) Exposed systems must be designed to withstand the flood related actions (buoyancy, flow, debris and wave).

    (Reason: Floodplain risk management)

Requirements for Electrical Utilities – flood hazard areas

24. Unless the electrical supply authority determines otherwise-

    a) Electrical switches must be placed above the PMF

    b) Electrical conduits and cables installed below the PMF must be waterproofed or placed in waterproofed enclosures.

    (Reason: Floodplain risk management)

BEFORE OCCUPATION CERTIFICATE

Occupation certificate required

25. Occupation or use of the whole or any part of a new building shall not commence unless an occupation certificate has been issued by the Certifying Authority. The final occupation certificate shall not be issued until such time as all relevant conditions of the development consent have been complied with.

    (Reason: Statutory requirement)

Road Addressing

26. The applicant shall apply to Council for written confirmation of the allocated road address for the development. These allocated road address shall be displayed at the property in accordance with the requirements of AS/NZS 4819 – Geographic information – Rural and urban addressing.

    (Reason: Statutory requirement)

Public Road Condition

27. The applicant shall be responsible for restoring Kentucky Road to its previous condition or better following the construction of the proposed solar farm development. Restoration works require the concurrence of NSW Crown Lands prior to commencement.

    (Reason: Public road maintenance)

Post-development remediation

28. The applicant shall make payment of a remediation bond, payable annually for the life of the development so that the bond equals the remediation cost at the end of the design life. The remediation bond shall be costed in today's dollar value and indexed over the design life. The applicant shall submit a fully costed remediation assessment to Council prior to the issue of an Occupation Certificate.

    (Reason: Site remediation)

ONGOING USE OF THE DEVELOPMENT / LAND

Loading and Unloading

29. All loading and unloading of service vehicles in connection with the use of the premises shall be carried out wholly within the Subject Site at all times.

    (Reason: Safety and amenity)

Obligation to minimise harm to the environment

30. The Applicant shall implement all reasonable and feasible measures to prevent and/or minimise any harm to the environment that may result from the construction, operation or decommissioning of the Development.

    (Reason: Environmental protection)

Operation of plant and equipment

31. The Applicant shall ensure that all plant and equipment used for the Development is:

    a) Maintained in a proper and efficient condition; and

    b) Operated in a proper and efficient manner.

    (Reason: Neighbourhood amenity)

Dust Management

32. The Applicant shall carry out all reasonable and feasible measures to minimise dust generated during the construction, operation and decommissioning of the Development.

(Reason: Environmental protection and neighbourhood amenity)

Pest, Vermin & Noxious Weed Management

33. The Applicant shall:

a) Implement suitable measures to manage pests, vermin and declared noxious weeds on site; and

b) Inspect the site on a regular basis to ensure that these measures are working effectively, and that pests, vermin or noxious weeds are not present on site in sufficient numbers to pose an environmental hazard, including grassfire hazard, or cause the loss of amenity in surrounding area.

Note: For the purposes of this condition, noxious weeds are those species subject to an order declared under the Noxious Weed Act 1993.

(Reason: Environmental protection)

Overland water flows

34. The applicant shall ensure that the development will not result in the diversion of overland surface waters onto adjoining properties and where necessary shall construct appropriate surface drainage systems.

(Reason: Health and amenity)

Bushfire Protection

35. The development shall maintain a 10m APZ, which will comprise of 10m of Inner Protection Area (IPA).

The APZ shall be maintained to ensure fuel load is minimised, through measures such as mowing and spraying of grasses and weeds. The APZ must be maintained within the boundaries of the development property (i.e. within Lot 1, DP 1236244).

(Reason: Protection from bushfire)

AT COMPLETION OF USE OF THE DEVELOPMENT / LAND

Post-development remediation

36. As part of the Site Environmental Management Plan (SEMP), a Rehabilitation and Decommissioning/Closure Plan must be prepared and submitted for approval by Council. The plan must include rehabilitation objectives and strategies, including:

    a) Description of the design criteria of the final landuse and landform;

    b) Indicators to guide the return of the land back to agricultural production;

    c) Expected timeline for the rehabilitation program;

    d) Management controls regarding decommissioning and removal of all solar arrays,

    e) Above and below ground infrastructure and any structures or infrastructure relating to the solar energy works, upon cease of solar energy works;

    f) A commitment to remove all solar farm infrastructure including materials located below the land surface.

    All works shall follow the same management principles outlined in the SEMP.

    (Reason: Site remediation)