



# pricemerrett

C O N S U L T I N G

## Temora Solar Farm Traffic Impact Assessment Report

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### Project Details

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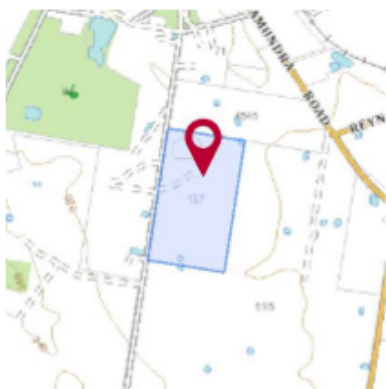
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## 1 Introduction

This report entails a Traffic Impact Assessment Report (TIAR) for the development of the 5.0 MW Temora Solar Farm on Moronys Lane on the outskirts of Temora NSW. The TIAR will review, traffic volumes, traffic growth and accident statistics to evaluate the adequacy of the proposed works for safe operation of the intersection into the future. A new site access has been proposed on the east of Moronys Lane 3km south east of Temora.

The traffic and transport implications of the proposed development are documented in this report.



### Property Details

Address: 197 MORONEYS LANE TEMORA 2666  
 Lot/Section 1/-/DP1110693  
 /Plan No:  
 Council: TEMORA SHIRE COUNCIL

### Summary of planning controls

Planning controls held within the Planning Database are summarised below. The property may be affected by additional planning controls not outlined in this report. Please contact your council for more information.

Local Environmental Plans	Temora Local Environmental Plan 2010 (pub. 11-6-2010)
Land Zoning	RU1 - Primary Production: (pub. 26-6-2020)
Height Of Building	NA
Floor Space Ratio	NA
Minimum Lot Size	40 ha
Heritage	NA
Land Reservation Acquisition	NA
Foreshore Building Line	NA
Terrestrial Biodiversity	Biodiversity

## 2 Existing Conditions

### 2.1 Location

The subject site is within the 'Primary Production' land zone. The site is located on Lot 1 DP1110693, 197 Moronys Lane Temora, NSW 2666. The development falls within the Temora Shire Council area. (Lat/Long: --34.4783928/147.5521198).

The proposed solar site is currently used for primary production and has been a grazing paddock.

Temora is located 84 km north of Wagga Wagga and on the crossroads of the Goldfields Way (B85) and Burley Griffin Way (B94). Goldfields Way runs north-south from Wagga Wagga to West Wyalong and is the main route between Albury and Brisbane. Burley Griffin Way links Griffith to the Hume Freeway south of Yass.



Figure 1 – Locality Map

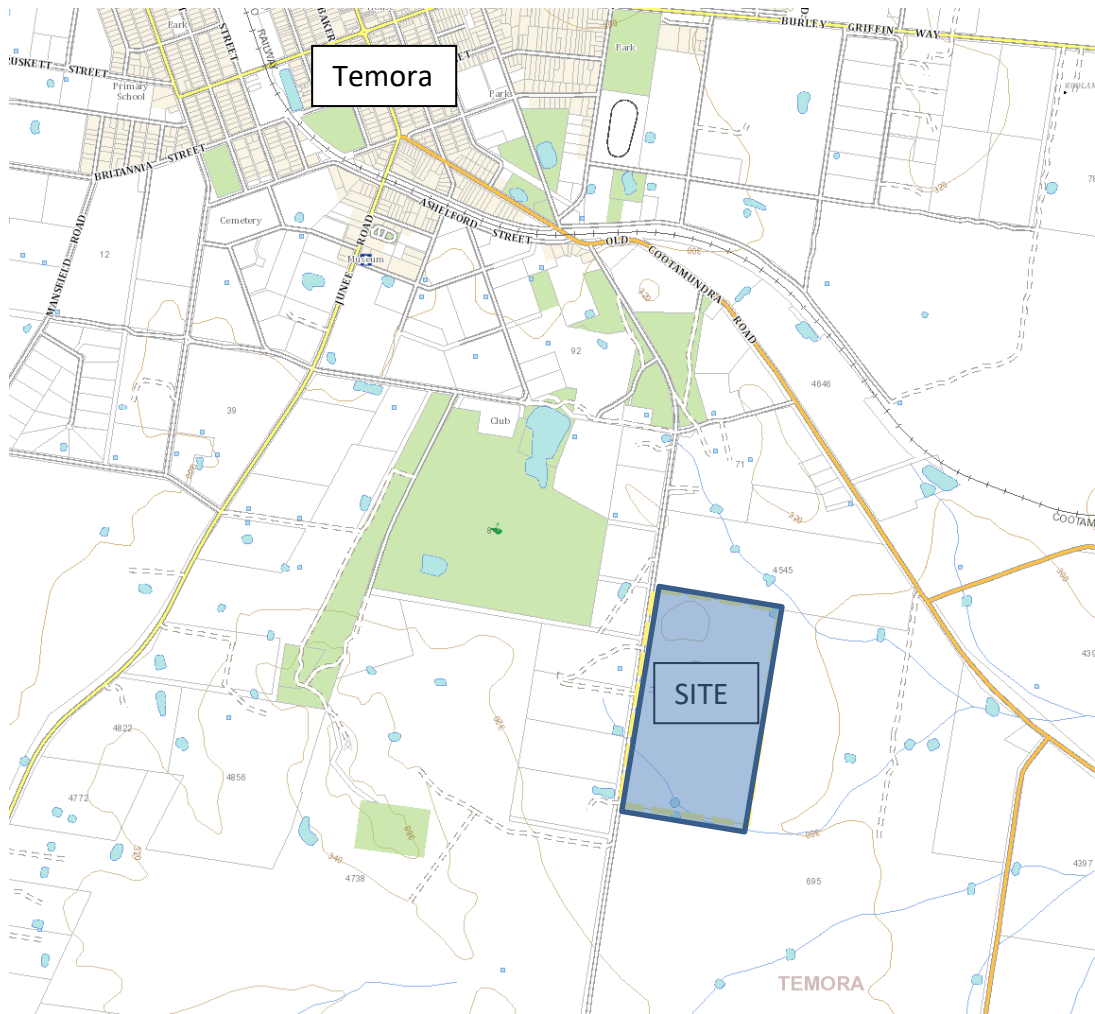


Figure 2 – Site Location

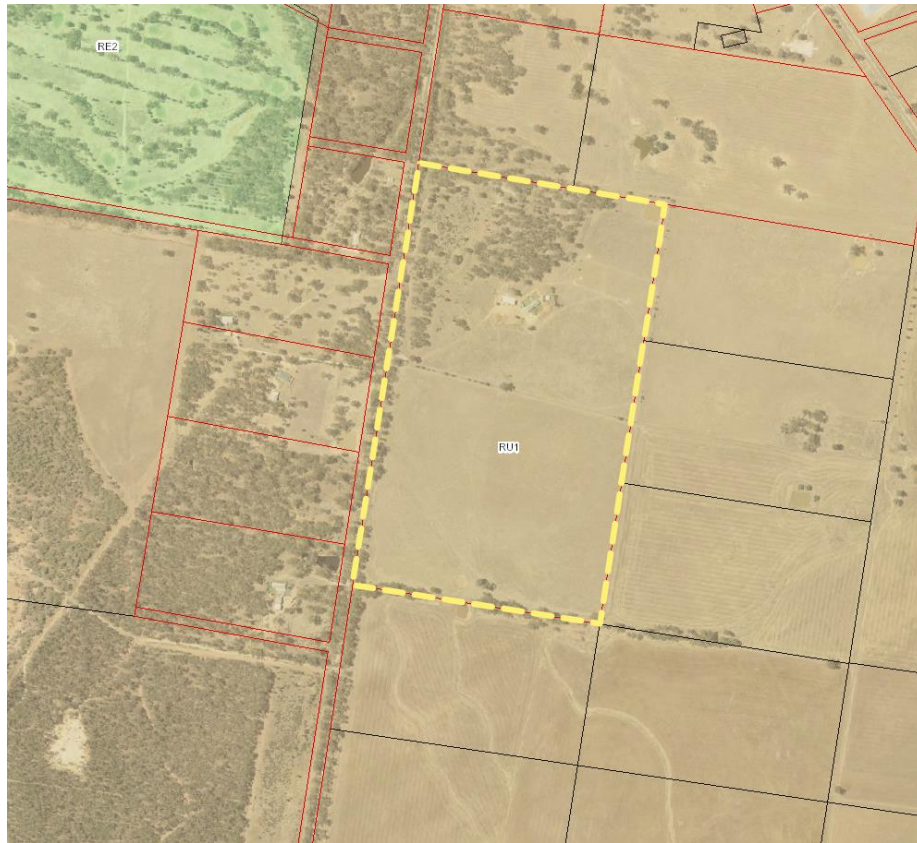


Figure 3 –Property with rural zone backing



Figure 4 –Existing access point

## 2.2 Existing Access Arrangement

The existing site is accessed from Moronys Lane via a gravel driveway located midway along the western lot boundary. The access is located on a straight section of Moronys Lane with sufficient site distances.

Moronys Lane is approximately 6.7m sealed two way road with 0.5m gravel shoulders.



Figure 5 – Looking south along Moronys Lane from access



Figure 6 – Looking north along Moronys Lane from access

Safe intersection site distances should be provided for access points. The existing access is within the 100 km/hr zone and therefore would have SISD of 248m for a reaction time of 2.0 sec.

A ridge exists to the north of the existing access which limits site distances to approximately 250m. This is considered sufficient for the short term construction traffic and long term vehicle movements which are relatively low.

## 2.3 Transport Route

Equipment for the solar development is likely to be transported on trucks from Sydney. Figure 7 - Vehicle route to site shows the likely transport route. B-double access should not be a problem as road trains currently access the grain site to the north with permits.



Figure 7 - Vehicle route to site

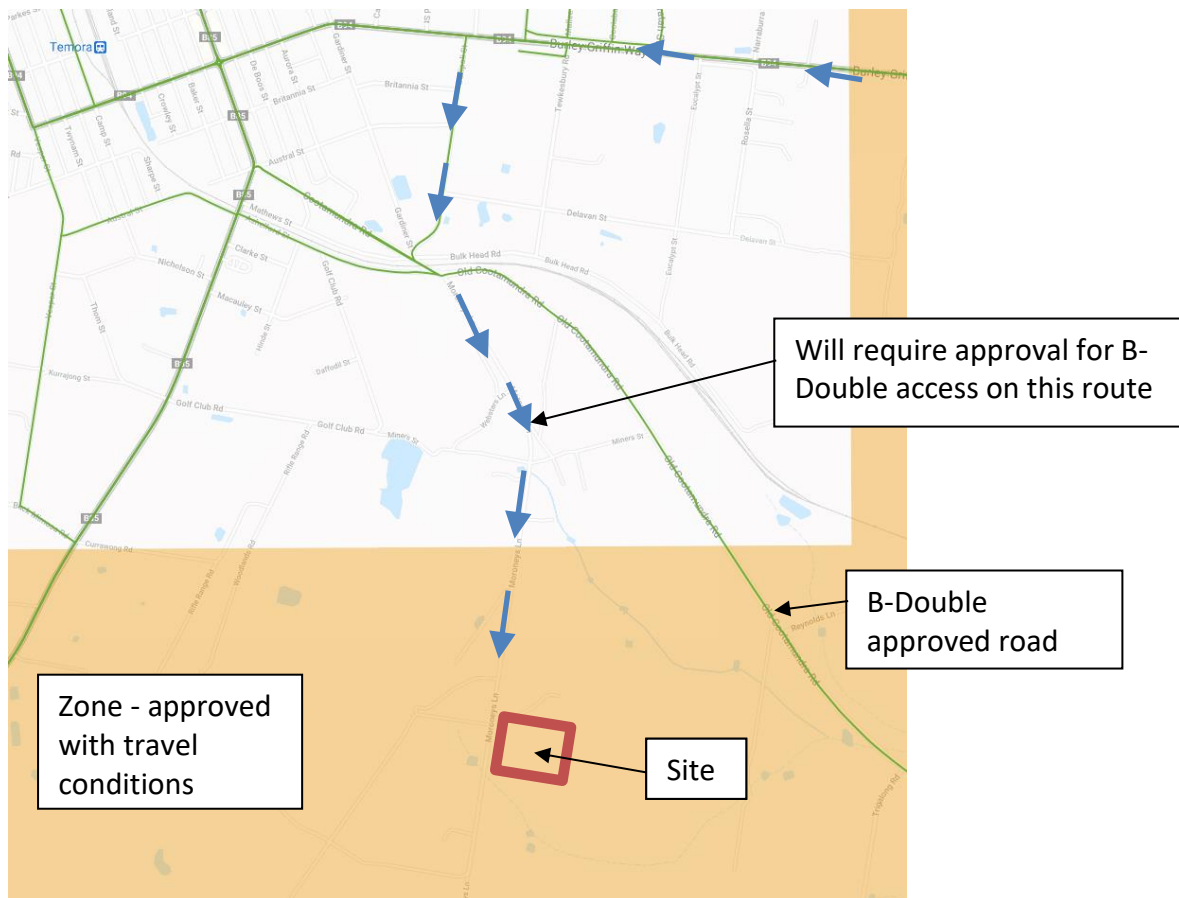


Figure 8 - B-Double approved routes

### 3 Proposal

The solar farm is to have an AC capacity of 5.0 MW and will cover an area of approximately 11ha which will take up approximately a quarter of the overall property of 48.5 Ha.

During construction phase there will be a large number of heavy vehicles (approx. 45 x combination of 26m + 19m) accessing the site delivering panel components.

It is likely take up to 12 weeks to complete delivery of equipment. Installation of the components will be occurring during delivery therefore completion of the site should occur within approximately 14 weeks. Upon completion of construction, the traffic generation at the site will be very low and only comprise the infrequent service vehicles.

During the construction phase the work site will involve the following:

#### Week 1 – 2

##### Establishment phase

Earthworks and general site establishment and fencing to construct new access and site compound development. This will comprise graders, rollers and water carts.

The existing access would be used during the initial works until the new western access point is accessible.

Likely traffic generation during this period is:

- 6 to 8 light vehicle trips per day (earthworks contractor's staff 4-5. Two-way trips).
- 10-15 Truck and trailer loads of gravel over approximately 2-3 days

#### Week 3-10

##### Construction Phase

Main construction of piers, installation of panels and underground infrastructure.

Site operation includes:

- 50 construction workers
- Operating hours 7am to 4pm Monday to Friday
- Potential shuttle bus service to and from the site.

Expected traffic generation during the construction phase will be:

- 33 Semi Trailers (19m articulated) including

- 6 for site establishment (buildings etc)
- 2 for delivery of inverters
- 12 for delivery of mounting systems
- 7 for delivery of balance of system
- 6 for demobilisation
- 12 x B Double (26m articulated) for PV Module delivery

## Week 10-12

### Commissioning

Specialist electrical contractors will commission the site through light or heavy rigid vehicles 12m.

- 10 construction workers
- Operating hours 7am to 4pm Monday to Friday

## 4 Traffic Engineering Assessment

### 4.1 Traffic Impacts

During the 12-week construction period an estimated 33 semi-articulated trucks and 12 B-Doubles will access the site with an expected daily maximum likelihood of 4 trucks. The trucks will access the site throughout the day generally between 10am and 2 pm and would therefore not contribute to morning or afternoon peak hour.

Construction workers are likely to be in the order of 20-30 vehicles entering the site in the morning between 6:30 to 8:00am and leaving at the afternoon peak around 4:00 to 5:00pm. These will be light vehicles and or shuttle bus service. These movements are expected to be 90% between Temora township and the site, therefore predominately left turn in to the site during the morning peak and right turn out of the site in the afternoon.

Traffic including truck movements generated at the site are highly unlikely to impact the local traffic conditions. Truck movements on the road network during harvest would be substantially higher so the impact of 3-4 vehicles per day should not create any concern.

## 4.1 Proposed Site Access

The access for the development has been located at the existing property access to minimise vegetation removal and earthworks costs.

The existing access will need to be widened to accommodate a B-Double vehicle movement including drainage improvements.

Fencing alterations would be required to ensure a B-Double can pull off the road and not have the rear block Moronys Lane. There is only 11.2m between the edge of bitumen and the existing fence line. Over 30m is proposed in Figure 9 below.

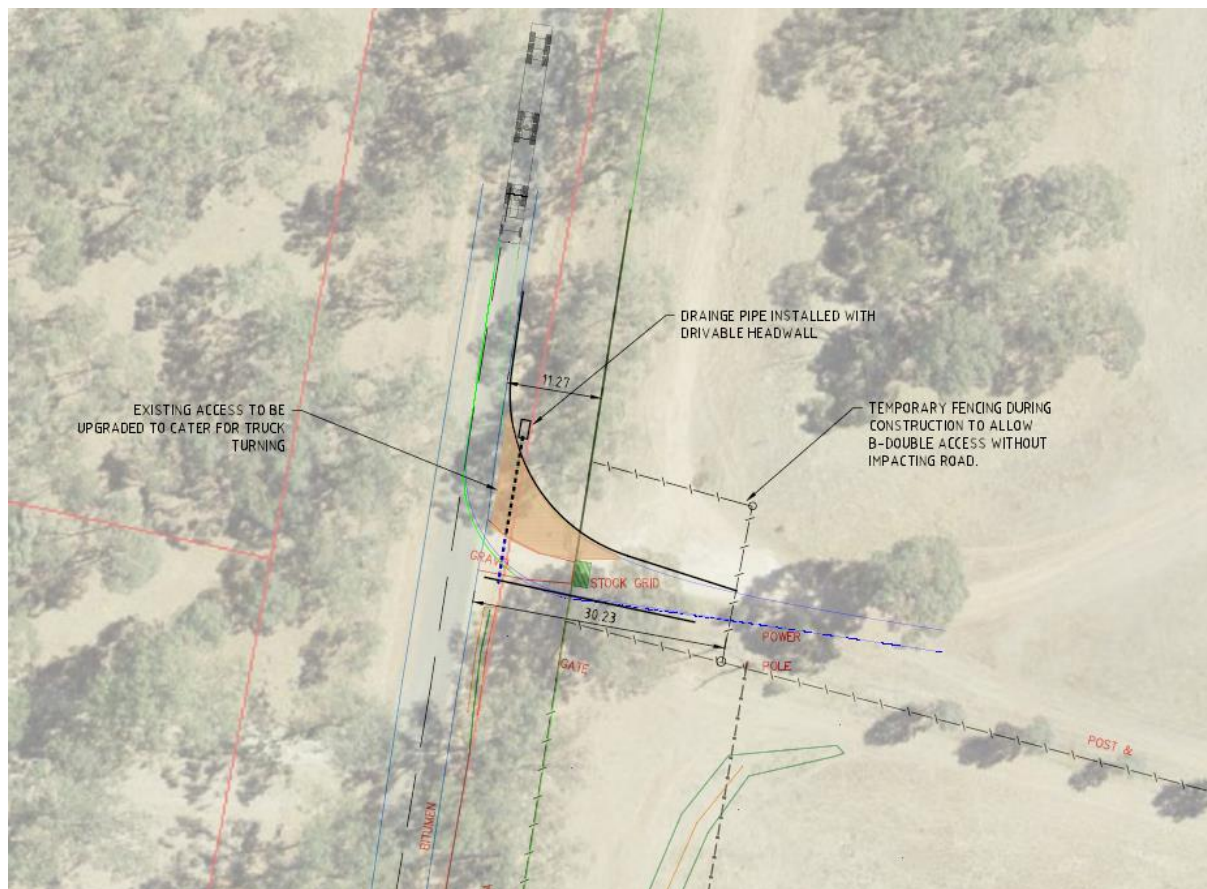


Figure 9 – Proposed access improvements

## 5 Conclusion

The relevant documents, plans and traffic counts have been perused for access requirements to the proposed solar farm development off Moronys Lane.

The main findings and proposed upgrades are outlined below:

### Recommendations

- i. The existing access point should be upgraded to accommodate B-Double access.
- ii. Permits may need to be sought for B-Double access to the site.
- iii. Existing access location is suitable and there are no major geometry issues.
- iv. Dilapidation survey to be undertaken prior to construction works.

### Findings

- v. Sight lines for the proposed access are adequate.

### Proposed Works

- iii. New culvert under proposed widening of the access with trafficable headwall.
- iv. New access to be designed and constructed to a standard to accommodate initial construction phase.
- v. Truck entering signs (W5-22) to be erected either side of the access during construction phase to notify motorist of trucks.

## 6 References

- Austroads Guide to Road Design Part4A: Unsignalised and Signalised Intersections (2017)
- Austroads Guide to Road Design : Part 3 (2016)
- Austroads Guide to Traffic Management Part 3: Traffic Studies and Analysis (2017)
- RTA traffic NSW Guide to Traffic Generating Developments (2002)

## 7 Appendix A

