

Traffic Management Plan

Limondale Sun Farm

Prepared for Limondale Sun Farm Pty Ltd | 26 July 2018





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Final

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1 Introduction

1.1 Project background

The Limondale Sun Farm ('Limondale') is a large scale solar photovoltaic (PV) generation facility and associated infrastructure in south-western New South Wales (NSW). The project will be developed on a site within the Balranald Shire Local Government Area (LGA), approximately 14 kilometres (km) south of the township of Balranald. Development consent (SSD 8025) under Section 89E of the NSW *Environmental Planning and Assessment Act 1979* (EP&A Act) was granted on 31 August 2017.

Limondale is currently undergoing a detail engineering design process to enable commencement of construction later in 2018.

1.2 Scope and objectives

This Traffic Management Plan (TMP) has been prepared to manage traffic safety on the public road network during construction of the project. The purpose of the TMP is to maximise traffic safety for all road users and project personnel and minimise disruption to local road users during construction. It identifies management practices, mitigation measures, monitoring procedures and protocols that will be implemented to:

- manage and control risks associated with traffic from the project; and
- address the requirements of applicable legislation and the conditions of consent (CoC) issued for the project.

1.2.1 Conditions of consent

Schedule 3, Condition 7 of the CoC requires the preparation of a TMP prior to the commencement of construction. Table 1.1 details the relevant CoC and where they are addressed in this TMP.

Table 1.1 Conditions of Consent

No.	Condition	Section in TMP where addressed
7.	Prior to the commencement of any road upgrades required under this consent, the Applicant must prepare a Traffic Management Plan for the development to the satisfaction of the Secretary. This plan must be prepared in consultation with the RMS, Council and Western Local Land Services, and include:	This document
(a)	details of the entire transport route to be used for development-related traffic;	Section 3.1
(b)	the origin, destination, number, loads, weights and lengths, frequency, including peak and daily traffic volumes and destination of vehicles accessing/exiting the site;	Section 3.1
(c)	details of the measures that will be implemented to minimise traffic safety issues and disruption to local users of the transport route/s during construction, upgrading or decommissioning works, including:	
	• consideration of potential interaction with Sunraysia Solar Farm in consultation with the applicant of that project;	Table 1.2
	• temporary traffic controls, including detours and signage;	Section 4.1
	• notifying the local community about project-related traffic impacts;	Section 4.1

Table 1.1 Conditions of Consent

No.	Condition	Section in TMP where addressed
	<ul style="list-style-type: none"> procedures for receiving and addressing complaints from the community about development-related traffic; 	Section 4.1
	<ul style="list-style-type: none"> minimising potential for conflict with school buses, rail services and other motorists as far as practicable; 	Section 4.1
	<ul style="list-style-type: none"> scheduling of haulage vehicle movements to minimise convoy length or platoons; 	Section 4.1
	<ul style="list-style-type: none"> responding to local climate conditions that will affect road safety such as fog, dust, wet weather; 	Section 4.1
	<ul style="list-style-type: none"> responding to any emergency repair or maintenance requirements; 	Section 4.1
	<ul style="list-style-type: none"> a traffic management system for managing over-dimensional vehicles; and 	Section 4.1
	<ul style="list-style-type: none"> consideration of potential impacts to stock movement on the Travelling Stock Reserve (Lots 7306 and 7307 DP 1158277), including options for fencing the site access track; and 	Section 4.1
(d)	a driver's code of conduct that addresses:	
	<ul style="list-style-type: none"> travelling speeds; 	Appendix A
	<ul style="list-style-type: none"> procedures to ensure that providers adhere to the designated transport routes; and 	Appendix A
	<ul style="list-style-type: none"> procedures to ensure that drivers implement safety driving practices and manage driver fatigue, particularly if using roads through Balranald. 	Appendix A

1.2.2 Stakeholder consultation

Stakeholder engagement has been undertaken during preparation of the TMP as required by the CoC. Outcomes are detailed in Table 1.2.

Table 1.2 Stakeholder consultation

Stakeholder	Date	Matters discussed
Balranald Shire Council (BSC)	23 May 2018 Phone call to Allan Lodge, BSC	BSC advised that a draft TMP will be submitted to Council for review and comments will be provided.
	6 June 2018 phone calls and emails	A copy of the TMP was issued to Council on 6 June. No response has been received. Attempts to follow up included phone calls on 13, 18, 20 June and emails on 13, 20, 25 and 26 June.
Roads and Maritime Services (RMS)	9 May 2018 Phone call to Manager, Land Use for RMS, Maurice Morgan.	RMS advised that a draft TMP will be submitted to RMS for review. Require that TMP addresses final estimated traffic volumes, routes and origin of heavy vehicles travelling to the site, and how these will be managed.
		A copy of the TMP was issued to RMS on 6 June. No response has been received. Attempts to follow up included phone calls on 13, 18, 20 June and emails on 13, 20, 25 and 26 June.
Western Local Land Services (WLLS)	7 May 2018 Email correspondence received from	Advised that WLLS had no objection to the access road through The Travelling Stock Reserve (TSR) subject to the WLLS Standard Conditions. WLLS advised that: Lot7306/DP1158277 (TSR21939) – WLLS have no current permits in place for use of the TSR by bona fide travelling stock, although there is a history of permits in

Table 1.2 Stakeholder consultation

Stakeholder	Date	Matters discussed
WLLS Senior Land Services Officer – TSR, Kerryn Hart.		<p>this area. Western LLS do not have any objections to road construction, subject to satisfying the WLLS Standard Conditions.</p> <p>Lot7307/DP1158277 (TSR40639 SWP1022-10 (Ten) Mile) – WLLS have care, control and management – it has no current lease on the area, nor a history of licence lease agreements. WLLS does not have any objections to road construction, subject to satisfying the WLLS Standard Conditions and the following Special Conditions:</p> <ul style="list-style-type: none">• road construction must not impact beyond the existing road footprint, with the exception of the planned new entrance (in accordance with Roads and Maritime Services direction); and• no further encroachment is made upon the SWP.
Sunraysia Solar Farm	24 May 2018 Phone call with project representatives	<p>Limondale Sun Farm has consulted with the proponent for the Sunraysia Solar Farm regarding the construction schedules for the two developments and concurrent impacts. Representatives for Sunraysia Solar Farm confirmed the construction is planned to commence in July 2018 with full construction from September 2018 to August 2019. No foreseeable conflicts with regards to traffic impacts were identified.</p>

1.2.3 Guidelines and standards

Relevant environmental standards, policies and guidelines relating to traffic and access are provided below:

- AS 1742.1 2003, Manual of uniform traffic control devices, General introduction and index of signs;
- AS 1742.3 2009, Manual of uniform traffic control devices, Traffic control for works in roads;
- RTA Traffic Control at worksite manual (2010);
- Austroads Guide to Road Design (2010);
- Road Transport (Vehicle Registration) Regulation 2017;
- National Heavy Vehicle Mass and Dimension Limits, NVHR July 2016; and
- Australian Code for the Transport of Dangerous Goods by Road and Rail, version 7.5 (2017).

2 Construction of Limondale Sun Farm

2.1 Overview

The project comprises the following key components:

- a network of PV solar panel arrays;
- electrical collection systems, switchyard and control room;
- a operation and maintenance building (offices, amenities and equipment sheds);
- parking and internal access roads; and
- connection infrastructure to the Balranald Substation.

2.2 Construction method

Site establishment works and preparation for construction will include:

- the establishment of a temporary management hub in a fenced off area within the development footprint including a site office, containers for storage and parking areas;
- construction of the site access intersection and access road from Yanga Way;
- construction of internal access tracks and boundary fencing;
- site survey to confirm infrastructure positioning and placement; and
- geotechnical investigations to inform tracking system design, mountings, and foundation pile arrangement.

Upon completion of the site establishment and pre-construction activities described above, construction will typically be as follows:

- posts will be driven or screwed into the ground to provide support for the mounting framework required for the PV solar panels;
- foundations for the inverter blocks, switchyard and management hub structures will be prepared;
- underground cabling will be installed between the PV solar panels and the collection circuit (this cabling will carry power throughout the site, between the inverters and central electrical switchyard, which will be located in the management hub);
- PV solar panel frames will be assembled and mounted on top of the piles;
- PV solar panels, inverters, the onsite substation and switchgear units will be installed;
- transmission infrastructure will be constructed between the project electrical switchyard and the Balranald Substation;

- the operation and maintenance building and parking area will be constructed;
- permanent fencing and security will be constructed; and
- the temporary management hub will be removed.

2.3 Delivery of construction materials and infrastructure

Construction materials and infrastructure will be transported to the site via road. Consistent with the vehicle length allowances of the designated B-Double route for Yanga Way, heavy vehicles up to 26 m in length will require access to the site. Construction materials and infrastructure delivered to the site will include:

- PV solar panels;
- piles, mounting structures and frameworks;
- electrical equipment and infrastructure including cabling, inverters, switchgear, and the onsite substation (or transformer);
- construction and permanent buildings and associated infrastructure; and
- earthworks and lifting machinery and equipment.

Oversized vehicle movements will be required for the delivery of the high voltage substation that will be located at the project electrical switchyard. The transportation of materials is further discussed in Section 3. The local road network is presented in Figure 2.1.

2.4 Construction schedule

The construction period is expected to take approximately 18 months, and is anticipated to commence in July 2018, with completion by the end of 2019. Typical scheduling of activities and deliveries during construction is detailed in Table 2.1.

Table 2.1 Typical activities during construction

Construction month	Typical activities
1-2	<ul style="list-style-type: none">• Contractor mobilisation• Delivery of consumables• Site access intersection and access road construction
3-5	<ul style="list-style-type: none">• Delivery and installation of PV tracker and module components• Delivery of cabling, communication and earthing components• Establishment of internal access roads (ongoing throughout construction phase)• Construction of foundations
6 - 11	<ul style="list-style-type: none">• Delivery and installation of PV tracker and module components (ongoing)• Establishment of internal access roads (ongoing)• Construction of HV substation (ongoing)• Sand trenching

Table 2.1 Typical activities during construction

Construction month	Typical activities
	<ul style="list-style-type: none">• Delivery of inverter-transformer stations• Construction of O&M building
12 – 16	<ul style="list-style-type: none">• Delivery and installation of PV tracker and module components (ongoing)• Establishment of internal access roads (ongoing)• Construction of HV substation (ongoing)
17-18	<ul style="list-style-type: none">• Commissioning• Contractor demobilisation

2.5 Hours of construction

Construction activities will be undertaken during the standard daytime construction hours of:

- 7 am – 6 pm Monday to Friday; and
- 8 am – 1 pm Saturday.

Exceptions to these hours will only occur with agreement of DPE, or in accordance with Schedule 3, Condition 12 of the CoC which permits the following construction, upgrading or decommissioning activities to be undertaken outside these hours without the approval of DPE:

- the delivery of materials as requested by the NSW Police Force or other authorities for safety reasons; or
- emergency work to avoid the loss of life, property and/or material harm to the environment.

2.6 Site access

Access to the site will be from Yanga Way, largely utilising an existing cleared access track. The existing access track is currently accessed from Yanga Way at its intersection with Balranald Road. A new intersection will be constructed approximately 150 m south of the intersection of Balranald Road and Yanga Way, and a short section of new access road will be required from the new intersection to the existing access track (see Figure 2.1).

The following road/intersection upgrade works to the site access are required prior to the commencement of construction in accordance with Schedule 3, Condition 5 of the CoC:

- construction of the intersection with Yanga Way to provide a new Basic Right Turn (BAR) and Basic Left Turn (BAL) treatment to be able to accommodate the largest vehicle accessing the intersection, to the satisfaction of RMS, and in accordance with the Austroads Guide to Road Design (as amended by RMS supplements);
- construction of the site access track to provide for two way vehicular movement between its intersection with Yanga Way and the existing access track which will be sealed for a minimum of 50 m from its intersection with Yanga Way and at the existing site entry off Yanga Way, to the satisfaction of RMS; and

- close the existing site entry off Yanga Way, and reinstate the road reserve to match the surrounding roadside landform, to the satisfaction of RMS and Council.

Figure 2.1 shows the local road network, Figure 2.2 shows the location of the proposed access way. A preliminary intersection design is shown in Figure 2.3.

Once constructed, all vehicles entering and exiting the site will be required to use the new site access intersection and road.

During construction of the new site access intersection and road (which is estimated to take 4-6 weeks), light vehicles requiring access to the site as part of site establishment will use the existing site access near the intersection of Yanga Way and Balranald Road.

2.7 Internal access roads and parking

Internal unsealed access roads of approximately 4–6 m width will be constructed to accommodate construction and operational traffic movements throughout the site. Parking will be provided within the management hubs.

Schedule 3, Condition 6 of the CoC requires internal access roads and parking to be constructed such that:

- internal project site roadways are constructed as all-weather roadways;
- sufficient parking is provided on site for all vehicles (no parking on the public road network in the vicinity of the site is permitted);
- all vehicles are loaded and unloaded on site, and enter and leave the site in a forward direction; and
- vehicles leave the site in a clean condition to avoid tracking dirt onto the public road network.

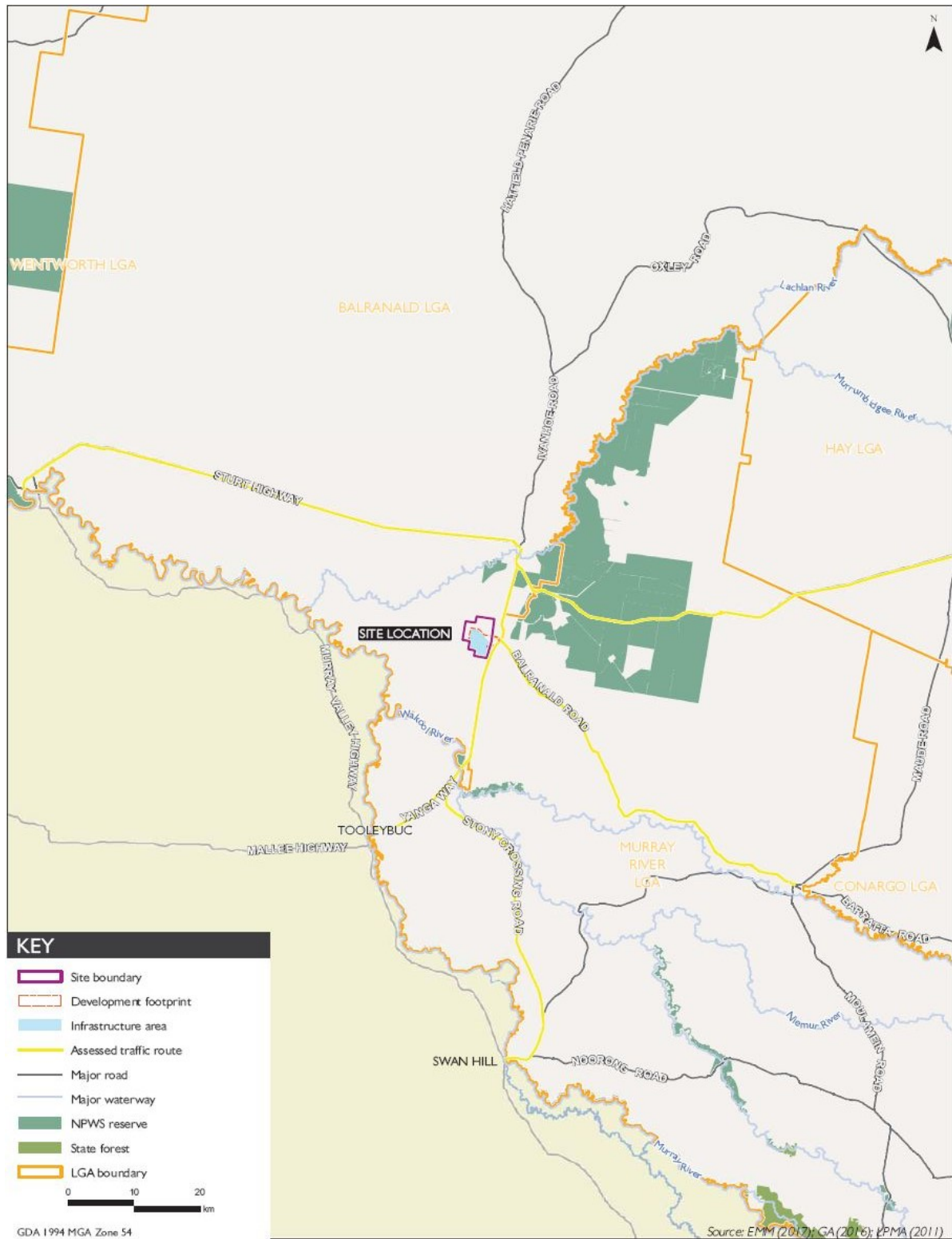


Figure 2.1 Local road network

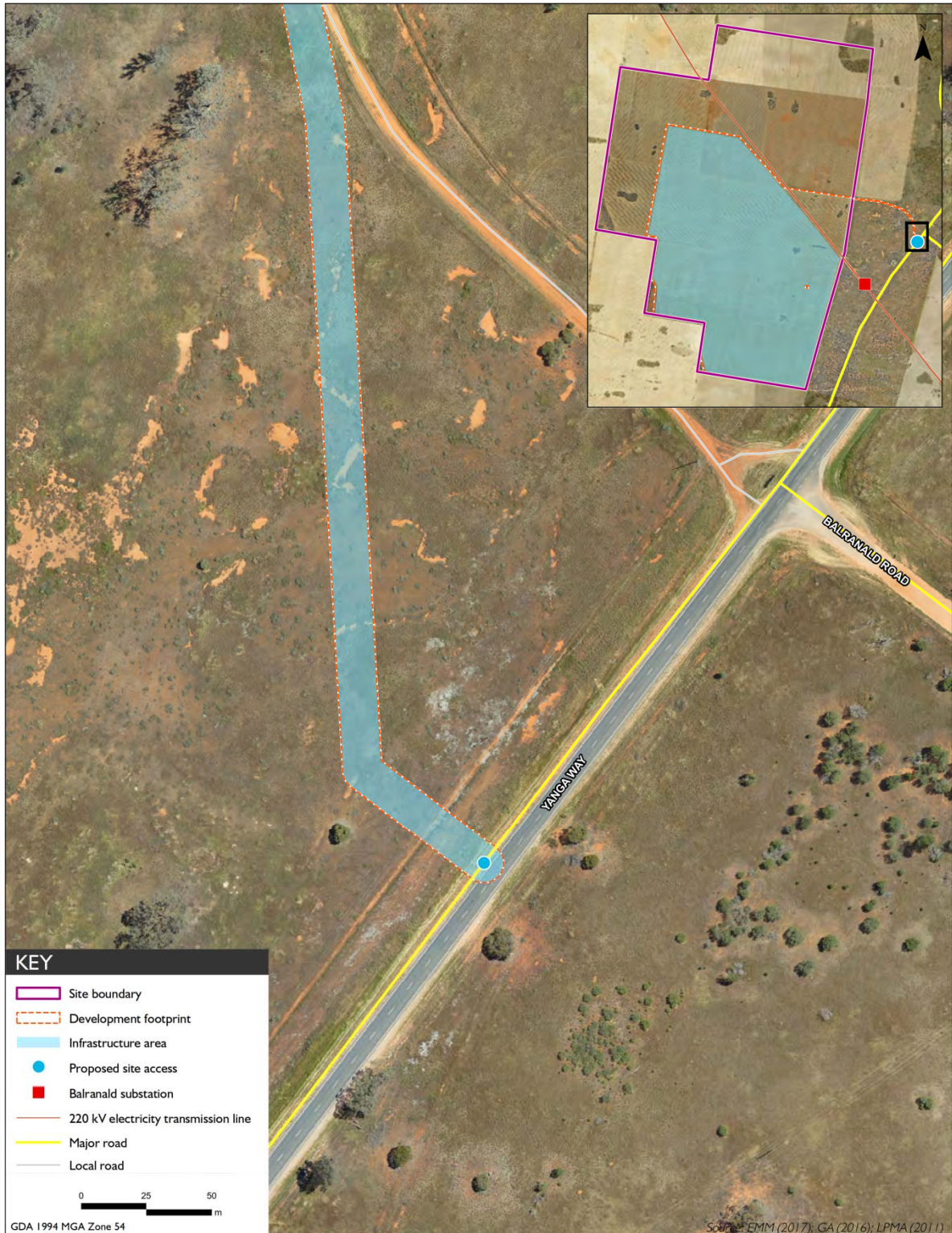


Figure 2.2 Site access intersection location

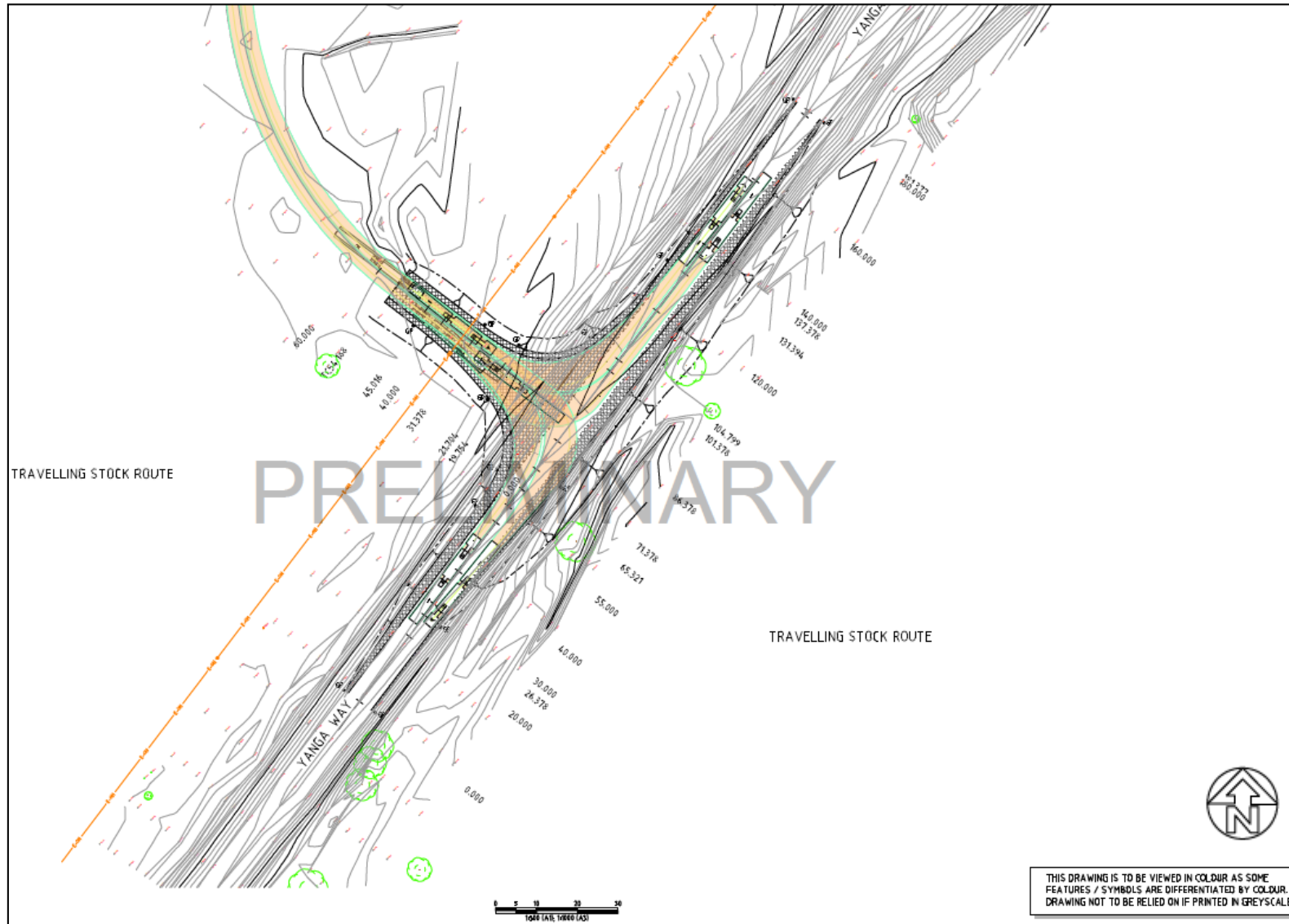


Figure 2.3 Preliminary site access intersection design

3 Traffic generation and site access

3.1 Construction traffic generation – heavy vehicles

3.1.1 Transport routes and ports of entry

During construction, the majority of heavy vehicles movements will be generated by deliveries of PV tracker and module components, which will be from Adelaide and Melbourne. The main origin of deliveries is expected to be Adelaide.

Vehicles leaving the site are generally expected to return in the same direction from which they travelled to site.

For project infrastructure shipped to the port of Adelaide:

- once shipments have been released they will be shipped to the trucking company's yards for loading onto A-Double trucks for road transport.
- The route will be the M20/A20 from Adelaide via Mildura to Balranald NSW which is a gazetted road train route.
- A suitable location (laydown area) will be sought in consultation with BSC near the site, where the road train will be unhitched and reduced to a length less than 26 m as per Schedule 3, Condition 2(b) of the CoC for transport to the site via Yanga Way.
- Vehicles will access the site from Yanga Way via the new site access intersection in Figure 2.1.
- Once fully unloaded, empty containers will be transported back to the laydown area via the same route via Yanga Way, the road train rehitched at the laydown area and trucks will return to Adelaide to pickup further loads.

If there are delays due to unforeseen circumstances, alternative transport options to meet delivery timeframes will include:

- Option 1. Goods will arrive in Melbourne and be shipped direct via rail to Adelaide, where they will be picked-up from railhead, rural tailgate performed and transported to the site on road trains as detailed above.
- Option 2. Goods will arrive in the port of Melbourne, be cleared, then loaded onto single transport and transported directly to the site in the same manner as detailed above. This travel route from Melbourne will be along the M79, onto the C274, onto the C260, onto the B400 across the Tooleybuc Bridge and up Stony Crossing Road and Yanga Way to site. In the event that the Tooleybuc bridge is closed vehicles will use the Swan Hill Bridge.

3.1.2 Traffic volumes and frequency

Heavy vehicle traffic generation is primarily associated with the delivery of infrastructure, equipment and materials to site. Forecasted traffic volumes for construction are presented in Table 3.1. These are estimates based on the current construction schedule, and are subject to change with detailed design and construction planning. Table 3.1 includes typical construction activities for each month during

construction. The estimated peak daily traffic is not expected to exceed the maximum daily vehicle movements permitted under the CoC of 54 vehicle movements.

Table 3.1 Forecast heavy vehicle movements during construction

Month	Forecast heavy vehicle traffic movements based on construction schedule ¹		
	Weekly	Daily	Max daily – Schedule 3, Condition 2 of CoC
Month 1	50	12	54
Month 2	125	30	54
Month 3	168	40	54
Month 4	172	41	54
Month 5	203	48	54
Month 6	203	48	54
Month 7	203	48	54
Month 8	209	49	54
Month 9	216	54	54
Month 10	217	54	54
Month 11	214	54	54
Month 12	185	44	54
Month 13	187	44	54
Month 14	90	21	54
Month 15	73	17	54
Month 16	16	4	54
Month 17	15	4	54
Month 18	20	5	54

Notes: 1. A vehicle movement is defined in the CoC as 'one vehicle entering and leaving the site'.

3.1.3 Loads, weights and lengths of heavy vehicles

Subcontractors will be responsible for complying with the Heavy Vehicle National Law (HVNL). Loads weights and lengths of heavy vehicles will be in accordance with the RMS network maps and approved roads lists for road freight transport vehicles, special purpose vehicles and load carrying vehicles of approved transport routes (<http://www.rms.nsw.gov.au/business-industry/heavy-vehicles/maps/index.html>).

Infrastructure arriving at designated ports is expected to be in standard ISO 20 ft or 40 ft containers. Transportation to the site will occur via road, or a combination of road and rail. Depending on the logistic subcontractor company, the approximate vehicle length will be between 16-19 m. The length of any vehicle will not exceed 26 m unless agreed with the DPE.

Heavy delivery vehicles from ports or train stations are to start transportation as soon as container loads are safely secured, resulting in single vehicle movements rather than convoy traffic to avoid conflicts with other motorists.

Maximum anticipated loads of material to be shipped in containers is 5 t to 26 t for 40 ft containers. The maximum resulting load to be carried by heavy vehicles will be 26 t. With an average tare weight of no more than 12 t for truck and trailer, total weight of loaded heavy vehicles will comply with the 50 t maximum load limit defined in the HVNL.

Some deliveries will require the use of oversized or heavy-load vehicles. Delivery of the high-voltage infrastructure provided by Transgrid is anticipated to utilize heavy-load vehicles for transportation. Transgrid will acquire necessary licenses and manage traffic controls for those deliveries. Traffic controls for oversized and heavy-load vehicles are discussed in Section 4.1.

3.2 Construction traffic – light vehicles

3.2.1 Transport routes

The primary transport routes in NSW that will be used by light vehicles accessing the site are:

- Yanga Way, which connects to the Sturt Highway to the north, and the Murray Valley Highway (B400) and Mallee Highway (B12) in Victoria, via the Tooleybuc bridge.
- Sturt Highway, which connects from the Balranald area to Buronga/Mildura and the Silver City Highway in the west and Hay and several other major townships in the east.
- Stony Crossing Road, a local road, which connects Yanga Way, approximately 20 km south of the site, to Swan Hill in Victoria. This route will be used by project traffic which is travelling to and from the direction of Swan Hill.

3.2.2 Origin and destination of workforce vehicles

The origin of workforce related traffic will depend on the location of workforce accommodation and the number of people employed from the region (who will commute daily from their permanent place of residence to and from the site). The majority of daily light vehicle workforce related traffic will travel from towns in the region, or from Mildura if flying into the region for work shifts. Estimated vehicle origins for light vehicles travelling to the site and the likely route to the site are detailed in Table 3.2.

Table 3.2 Origin of workforce-related light vehicles travelling to site on a daily basis

Origin (town)	Route to site
Balranald	<ul style="list-style-type: none"> • Sturt Highway travelling east; and • Yanga Way travelling south.
Euston	<ul style="list-style-type: none"> • Sturt Highway travelling east; and • Yanga Way travelling south.
Tooleybuc	<ul style="list-style-type: none"> • Yanga Way travelling north.
Hay	<ul style="list-style-type: none"> • Sturt Highway travelling west; and • Yanga Way travelling south.
Swan Hill	<ul style="list-style-type: none"> • Murray Valley Highway (Victoria) travelling north; and • Yanga Way travelling north. • Swan Hill Road travelling north; • Stony Crossing Road travelling north; and • Yanga Way travelling north.
Mildura (unlikely that many workers would make a daily commute from Mildura however fly-in-fly-out workers may use this route regularly)	<ul style="list-style-type: none"> • Sturt Highway travelling east; and • Yanga Way travelling south.

3.2.3 Traffic volumes and frequency

Light vehicles will primarily comprise workforce travelling to and from the site. Average daily workforce estimates for each month of construction (based on the current schedule in Section 2.4) are presented in Table 3.3. An allowance has been made to account for carpooling.

Table 3.3 Daily workforce estimates during construction

Month	Daily workforce (number of personnel)	Daily vehicle movements ¹
Month 1	80	80
Month 2	140	120
Month 3	210	160
Month 4	220	170
Month 5	220	170
Month 6	220	170
Month 7	220	170
Month 8	250	200
Month 9	250	200
Month 10	250	200
Month 11	250	200
Month 12	230	180
Month 13	230	180
Month 14	160	140
Month 15	110	100
Month 16	60	60
Month 17	50	50
Month 18	50	50

Notes: 1. A vehicle movement is defined in the CoC as 'one vehicle entering and leaving the site'.

3.3 Interaction with Sunraysia Solar Farm

The CoC requires consideration of potential interaction with Sunraysia Solar Farm in consultation with the applicant of that project. The proposed Sunraysia Solar Farm is also on the western side of Yanga Way, immediately south of Limondale.

As detailed in Table 1.2, Limondale Sun Farm has consulted with the proponent for the Sunraysia Solar Farm regarding the construction schedules for the two developments and concurrent impacts. Representatives for Sunraysia Solar Farm confirmed the construction is planned to commence in July 2018 with full construction from September 2018 to August 2019. While the construction periods for both projects will overlap for most of their durations, no foreseeable conflicts with regards to traffic impacts were identified by either party.

The Limondale Sun Farm EIS (EMM 2017) assessed the combined (cumulative) construction traffic for both projects, on the basis that construction for the two projects could occur simultaneously. The

Limondale Sun Farm traffic assessment conservatively estimated 100¹ daily vehicle construction traffic movements from the Sunraysia Solar Farm occurring concurrently with the average construction stage traffic movements (204 daily vehicle movements) from the Limondale Sun Farm. The traffic assessment concluded that traffic generated by Limondale (including cumulative impacts with the Sunraysia Solar Farm) will not cause the future daily traffic volumes on either the Sturt Highway, Yanga Way or Stony Crossing Road, to increase above the relevant design levels that will trigger road widening improvements.

Due to the location of the Sunraysia Solar Farm to the south of Limondale and the proposed transport routes, there is little overlap in transport routes, and it is not anticipated that there will be significant overlap in terms of causing additional wear and tear on the road.

¹ The Sunraysia Solar Farm EIS states that *'on average, the peak period of the construction phase would add an additional 50 vehicles to the road network per day'* (ngh environmental 2017)

4 Traffic management and controls

4.1 Traffic safety management

General measures that will be implemented to minimise traffic safety issues and disruption to local users of transport routes during construction are detailed in Table 4.1. Once detailed design and procurement of contractors is complete, a Traffic Control Plan (TCP) will be prepared with input from the relevant subcontractors and included as an attachment to the TMP prior to construction. The TCP will describe:

- temporary traffic controls to be implemented during construction of new intersection on Yanga Way;
- traffic safety controls such as signage to notify road users, speed limits, UHF frequencies and other project related information during construction;
- specific control measures to be implemented during local climatic events such as extreme wet weather events, fog and dust storms;
- transport routes for heavy vehicles (and over-dimension vehicles where required);
- location of school bus routes and bus stops in the vicinity of the site.

The TCP will illustrate the signs and traffic control devices that will be installed on the public road network. The TCP will be consistent with the measures contained in the TMP and will comply with the requirements of Australian Standard AS 1742.3 2009 Manual of uniform traffic control devices, Traffic control for works in roads and the Traffic Control at Work Sites manual (RTA 2010).

Table 4.1 Traffic management and controls

Aspect	Management or control measure	Responsibility	When does this apply
General	All personal engaged in managing project-related traffic in the vicinity of the site shall have appropriate training in accordance with RMS requirements.	Site Manager	Prior to construction
	Traffic management and controls will comply with the RMS Traffic Control at Work Sites Manual (RMS 2010) and Austroads Guide to Road Design where necessary.	Site Manager	Prior to construction
	A Section 138 Certificate (Work on Public Lands) will be obtained prior to the commencement of road works for the intersection upgrade.	Site Manager	Prior to construction
	All vehicles entering and leaving the project site will be required to travel via the purpose-built site access intersection with Yanga Way.	Site Manager	During construction
	All vehicles will enter and leave the site in a forward direction.	Site Manager	During construction
	Drivers entering the site will give way to passing vehicles and wait in the designated turning lane until there is a safe distance between the any approaching vehicles and the site access road before making a turn.	Site Manager	During construction
	The TCP will identify traffic controls to be implemented during construction, including during construction of the site access intersection.	Site Manager	During construction
	If detours that will impact public access along the public road network are required, the detour route, duration that the detour will be in place for, and procedures to notify local road users will be submitted to BSC and RMS prior to implementation.	Site Manager	During construction
Notifying the community of project-related traffic impacts	Balranald Shire Council will be notified two weeks prior to commencement of construction. A strategy for communicating information about the project, including traffic related impacts, will be developed in consultation with Balranald Shire Council. This will include use of Balranald Shire Council’s website, the Limondale Sun Farm website, and/or installation of signage in the vicinity of the site prior to construction.	Site Manager	Prior to construction
	All community notifications will include contact details for the Site Manager.	Site Manager	Prior to and during construction
Interaction with Sunraysia Solar Farm	In consultation with the principle contractor for the Sunraysia Solar Farm, a plan will be prepared to including the following details: <ul style="list-style-type: none"> Location of site access for construction of both developments; UHF call in procedures for vehicles approaching both sites; Additional traffic safety controls such as signage, reduced speed limits (where warranted) during overlap of peak periods 	Site Manager	During construction, if there is an overlap between construction of

Table 4.1 Traffic management and controls

Aspect	Management or control measure	Responsibility	When does this apply
	for the two developments; and <ul style="list-style-type: none"> Contact details for the principle contractors of each development. 		the two developments
Potential for conflict with other road users including school buses	The TCP will identify: <ul style="list-style-type: none"> the location of school bus routes and bus stops in the vicinity of the site in consultation with school bus operators; and details of safety signage to inform heavy vehicle drivers, bus drivers and motorists of construction traffic activity and the location of bus stops. 	Site Manager	During construction
Scheduling of haulage vehicle movements	The real-time management of deliveries to the site will be managed by the Site Manager to ensure that no queuing of trucks occurs outside the site entrance or along Yanga Way, and that convoys/platoons of vehicles are avoided.	Site Manager	During construction
	Heavy delivery vehicles from ports or train stations are to start transportation as soon as container loads are safely secured, resulting in single vehicle movements rather than convoy traffic to avoid conflicts with other motorists.	Site Manager	During construction
	The Site Manager will work closely with the logistics providers to co-ordinate the arrival of trucks to allow for minimal vehicle standing time onsite. Drivers will be aware of their required arrival time slots and will be instructed to arrive within their allocated timeslot. Drivers will be expected to coordinate their rests and travel times to meet their allocated timeslots.	Site Manager	During construction
Local climate conditions	Specific control measures will be implemented during local climatic events such as extreme wet weather events, fog and dust storms. Measures will include: <ul style="list-style-type: none"> reduced speed limits that apply in certain conditions, such as reduced visibility due to dust or fog; temporary suspension of heavy vehicle movements to and from, or within the site to suit weather conditions; additional dust suppression in the event of dust storms or high winds. 	Site Manager	During construction
	Real time management of deliveries will be managed by the Site Manager through the use of UHF radio, mobile phone and signage, where appropriate within the site and when travelling to and from the site, will be used to notify drivers when specific control measures are in force, or when there are any changes to road conditions.	Site Manager	During construction
	Where specific control measures need to be implemented over an extended period, such as during an extended wet weather event, appropriate signage shall be installed to notify drivers.	Site Manager	During construction
Emergency repair or maintenance	Clear access to and within the project site to be maintained for emergency services vehicles 24/7.	Site Manager	During construction
	Yanga Way between the Sturt Highway and the site will be utilised by heavy vehicles accessing the Limondale Sun Farm. Any	Site Manager	During

Table 4.1 Traffic management and controls

Aspect	Management or control measure	Responsibility	When does this apply
	damage to the road pavement on this section of Yanga Way will be reported immediately to BSC.		construction
	If emergency repairs or maintenance are required to road infrastructure, Limondale will consult with BSC regarding apportionment of costs if emergency repairs are determined to be substantially attributable to construction of the Limondale Sun Farm.	Site Manager	During construction
	If necessary, construction vehicle movements will be suspended for the duration of the emergency repairs or appropriate alternative haulage routes identified. Relevant road authorities will be notified immediately regarding the use of alternative haulage routes.	Site Manager	During construction
Over-dimensional vehicles	The length of heavy vehicles will not exceed 26 m unless agreed with DPE. If over-dimensional vehicles are required to access the site, an over-dimensional TCP will be prepared will be prepared for managing over-dimensional vehicle movements.	Site Manager	During construction
Travelling stock Reserve (TSR)	The site access road traverses a TSR. Consultation with Western Local Land Services (WLLS) is ongoing. Concurrence was issued by WLLS on 7 May 2018. The WLLS Standard Conditions accompanying the licence will be adhered to and where necessary, included in the TCP.	Site Manager	During construction
Driver code of conduct	A driver code of conduct for construction is included as Attachment A. Copies of the driver code of conduct will be provided to all drivers accessing the site.	Site Manager	During construction
Heavy vehicle restrictions	Daily heavy vehicles movements will not exceed 54 heavy vehicle movements ¹ per day during construction on the public road network.	Site Manager	During construction
	Subcontractors will be responsible for complying with the Heavy Vehicle National Law (HVNL). Loads weights and lengths of heavy vehicles will be in accordance with the RMS network maps and approved roads lists for road freight transport vehicles, special purpose vehicles and load carrying vehicles of approved transport routes (http://www.rms.nsw.gov.au/business-industry/heavy-vehicles/maps/index.html)	Site Manager	During construction
Condition of public roads	Water trucks will be used for dust suppression along internal roads and the site access road from Yanga Way. Vehicles will be hosed down prior to exiting the site if required to avoid tracking dirt onto the public road network.	Site Manager	During construction

Notes: 1. A vehicle movement is defined in the CoC as 'one vehicle entering and leaving the site'.

4.2 Inspection and monitoring

A daily inspection and monitoring program will be implemented during construction of the project detailed in Table 4.2.

Table 4.2 Inspection and monitoring

Requirement	Responsibility	Frequency
Check signage installed for the project in installed in accordance with the TCP.	Site Manager	Weekly
Maintain a daily record of the number of heavy vehicle movements accessing the site during construction.	Site Manager	Daily
Inspect condition of site access intersection and Yanga Way in the vicinity if the site to observe whether tracking of dirt and dust is occurring from construction.	Site Manager	Daily
Monitor weather forecasts and apply condition-specific safety measures where required.	Site Manager	Daily
Review the TMP in accordance with Section 5.2 of the TMP.	Site Manager	Biannually

4.3 Drivers code of conduct

A Driver's Code of Conduct has been prepared for construction. The Driver's Code of Conduct is included as Attachment A.

5 Implementation of the TMP

5.1 Roles and responsibilities

The roles and responsibilities for implementation of environmental management are detailed in the Environmental Management Strategy (EMS). The Site Manager is responsible for implementation of the TMP, including undertaking all consultation with key stakeholders and ensuring that the relevant subcontractors prepare the TCP in accordance with this TMP and the EMS.

Table 5.1 Roles and responsibilities

Role	Name	Contact
Site Manager	To be confirmed.	

5.2 Review and continuous improvement

During construction, the TMP will be reviewed internally every six months to:

- assess the continuing suitability of the TMP in relation to construction progress, changing conditions and information, and will include review of matters such as:
 - requirements to utilize heavy load vehicles exceeding the weights or dimensions for unrestricted road access, specified in the HVNL;
 - actual traffic volumes compared to predicted volumes in the TMP, and any required amendments to traffic control measures;
 - interaction with the Sunraysia Solar Farm;
- incorporate feedback from external stakeholders, including BSC, road authorities and the general community.

Regular review of the TMP will allow opportunities for improvement to be identified and implemented, achieving the overall aim of continual improvement.

Where the review process identified material changes to the TMP, relevant stakeholders (BSC, RMS, WLLS) will be consulted regarding the changes. Approval for the proposed changes will be sought from the relevant stakeholders. The TMP will be resubmitted to DPE for approval where material changes are required.

5.3 Complaints handling

The Site Manager will respond to community complaints relating to traffic incidents or issues. All complaints received will be documented in a Complaints Register, which will record the nature of the complaint, any corrective / mitigative actions undertaken in response, and response times. All complaints will be responded to within 24 hours.

The following details will be recorded:

- Date and time of the complaint;
- Method by which the complaint was made;
- Personal details of the complainant (if provided);
- Nature of the complaint;
- Action taken in relation to the complaint;
- Follow-up actions required.

All complaints will be investigated by the Environment and Community Manager (ECM), who will also be responsible for:

- Ensuring adequate mitigative actions are implemented to prevent reoccurrence;
- liaising and following-up with complaints; and
- review of the complaints register to monitor the effectiveness of mitigation measures and identify any recurring themes of complaints that indicate a need to amend management approach.

The complaints procedure and contact details for the public to make complaints will be included on the project website and provided to Balranald Shire Council. Contact methods will include a phone number and email address.

5.4 Incident management

The Site Manager and Environmental and Community Manager will be notified immediately of all traffic-related incidents. Vehicles will not be moved and/or removed from the scene until the incident has been investigated. Drivers of any vehicle involved in a traffic-related incident will undertake a standard drug and alcohol testing.

All traffic-related incidents on the public road network will be recorded and investigated in consultation with the relevant road authority and emergency services.

In addition to the above process, incidents and near misses will be investigated and documented in accordance with the Limondale Sun Farm Environmental Management Strategy to:

- establish root cause and identify contributing factors;
- identify preventative and corrective actions to be implemented to prevent reoccurrence; and
- share learnings amongst the project team and other stakeholders as appropriate.

In accordance with Schedule 4, Condition 3 of the CoC, Limondale will:

- immediately notify the Secretary and any other relevant agencies of any incident on site or related to site vehicles;
- within 7 days of the date of the incident, provide the Secretary and any relevant agencies with a detailed report on the incident, and such further reports as may be requested.

As part of incident investigation or complaints resolution, corrective and preventative actions will be identified, assigned to an appropriate person and closed out according to set timeframes. Corrective actions will include reference to the relevant incident report or complaint to track compliance.

References

Austrroads 2012, Guide to Road Design.

EMM Consulting 2017, Limondale Sun Farm Environmental Impact Statement.

ISO 2013, International Standard ISO 668. Series 1 freight containers —Classification, dimensions and ratings

ng environmental 2017, Environmental Impact Statement Sunraysia Solar Farm, Balranald.

Roads and Traffic Authority (RTA) 2010, Traffic Control at Work Sites.

Abbreviations

CoC	Conditions of Consent
DPE	Department of Planning and Environment
EIS	Environmental Impact Statement
HVNL	Heavy Vehicle National Law
LGA	Local Government Area
NSW	New South Wales
RMS	Roads and Maritime Service
TMP	Traffic Management Plan

Driver's Code of Conduct

Appendix A

Driver's Code of Conduct

A.1 Driver's Code of Conduct

This Driver's Code of Conduct (COC) will be read, understood and signed by all personnel associated with Limondale Sun Farm ("Limondale"). The COC address the conditions required in the Development Consent (Schedule 3, Condition 7(d)):

- travelling speeds;
- procedures to ensure that drivers adhere to the designated transport routes; and
- procedures to ensure that drivers implement safe driving practices and manage driver fatigue, particularly if using roads through Balranald.

All personnel associated with this project will conduct an induction/training prior to driving activity for this project.

A.1.1 Travelling speeds

While travelling on road, vehicles must not exceed the maximum default speed limit in an area. Driving above the speed limit is illegal and creates unacceptable safety risks to the driver and other road users.

Heavy vehicles must strictly travel within the speed limit, or sometimes in a lower speed than the speed limit in tough road conditions for safety purposes.

A.1.2 Designated transport routes

Drivers must adhere to the designated transport routes only. If the designated transport routes change, the Site Manager will inform the driver's of alternate transport route(s). Should the designated transport routes change under any circumstances (eg. road closure, give way to emergency vehicle and etc), driver's must report to the Site Manager immediately.

A.1.3 Safe driving practice

Drivers must strictly follow these safe driving practices at all times:

- obey all NSW road laws and regulations;
- do not drive under the influence of drug, alcohol and medication that may influence the ability to drive, seek professional medical advice if in doubt;
- respect other road users;
- maintain a high level of conduct;
- maintain awareness of required road and traffic controls;
- drive with care under tough weather conditions;
- rest at least every 2 hours or when required to avoid fatigue;
- report any near misses;

- report any vehicle accident to the Site Manager;
- report any vehicle defect to the Site Manager;
- only drive to the site during approved construction hours; and
- keep wheels of vehicles clean and in good condition to minimise environmental and road surface impacts.

Drivers will be assessed their performance regularly and provided refresher training programs when required.

Record of agency consultation

Appendix B

Record of agency consultation



24 July 2018
SF2018/241171

William Radford
Belectric Australia Pty Ltd
Suite 204, 23 Milton Parade
MALVERN VIC 3144

Dear William

Limondale Sun Farm, Balranald
Traffic Management Plan Approval

This letter acknowledges that RMS has reviewed the Traffic Management Plan (Report J180140RP1 / Prepared for Limondale Sun Farm Pty Ltd / 5 June 2018) submitted for the abovementioned project and finds it acceptable. No further comments will be made on the plan.

Please contact me on (02) 6923 6642 if you require any further advice.

Yours sincerely

Peter Johnson
RMS Authorised Representative

Enc.



Kate Cox

From: Kerryn Hart [kerryn.hart@lls.nsw.gov.au]
Sent: Wednesday, 13 June 2018 4:28 PM
To: John Zammit; Admin Western
Cc: Kate Cox; Niccolo Segato; Wayne Rolph; William Radford; Brett Thomas
Subject: RE: Limondale Solar Farm - Traffic Management Plan for review

Follow Up Flag: Follow up
Flag Status: Flagged

Hello John,

Thank you for the opportunity to review your Traffic Management Plan, with regard to Travelling Stock Reserves (TSR) 21939 and 40639 (Stock Watering Place SWP1022-10 (Ten) Mile).

Please note comments (yellow highlights) below, on relevant sections:

Section		Page
Table 1.1 – Condition of Consent		
7.(c)	Consideration of potential impacts to stock movement on the Travelling Stock Reserves (Lots 7306 and 7307 DP 1158277), including options for fencing the site access track; and	4
Table 1.2 – Stakeholder consultation		
7 May 2018 Email correspondence received from WLLS Senior Land Services Officer – TSR, Kerryn Hart.	Advised that WLLS had no objection to the access road through the Travelling Stock Reserves (TSR) subject to provided the relevant WLLS Standard Conditions and relevant obtaining a licence for occupation of travelling stock reserve (TSR). WLLS advised that: Lot7306/DP1158277 (TSR21939) – WLLS have one no current permits in place for use of the TSR by bona fide travelling stock, although there is a history of permits in this area. Western LLS do not have any objections to road construction, subject to satisfying the WLLS Standard Conditions. Lot7307/DP1158277 (SWPTSR40639 SWP1022-10 (Ten) Mile) – WLLS have care, control and management – it has no current lease on the area, nor a history of licence lease agreements. WLLS does not have any objections to road construction, subject to satisfying the WLLS Standard Conditions and the following Special Conditions: • road construction must not impact beyond the existing road footprint, with the exception of the planned new entrance (in accordance with Roads and Maritime Services direction, attached); and • no further encroachment is made upon the SWP.	4-5
Table 4.1 – Traffic management and controls		
Travelling Stock Reserve (TSR)	The site access road traverses a TSR. Consultation with Western Local Land Services (WLLS) is ongoing; an offer of licence for entering the site from Yanga Way across the TSR Concurrence was issued by WLLS on 7 May 2018. The WLLS Standard Conditions accompanying the licence will be adhered to and where necessary, included in the TCP.	22

Comments:

- The stock permit has expired and is no longer in place.
- I did write SWP40639 in my response to you but it should be TSR40639 (Stock Watering Place SWP1022-10 (Ten) Mile).
- Department of Industry-Lands issues licenses; Western Local Land Services issues use permits over TSRs.

Please let me know if you have any further queries and all the best with the project.

Kind Regards,

Kerryn Hart | Senior Land Services Officer - TSR
Western Local Land Services
32 Enterprise Way | PO Box 363 | Buronga NSW 2739
T: 03 5021 9401 | **M:** 0447 337 653
E: kerryn.hart@lls.nsw.gov.au
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From: John Zammit [mailto:john.zammit@overlandsunfarming.com.au]
Sent: Wednesday, 6 June 2018 11:18 AM
To: kerryn.hart@lls.nsw.gov.au; admin.western@lls.nsw.gov.au
Cc: Kate Cox; Niccolo Segato; Wayne Rolph; William Radford; Brett Thomas
Subject: Limondale Solar Farm - Traffic Management Plan for review

Hi Kerryn,

On behalf of Limondale Sun Farm Pty Ltd please find attached the Traffic Management Plan to be reviewed by Western LLS.

If you could please review at your earliest convenience and provide any feedback if required that would be much appreciated.

One of our team will be in touch in the coming days to see if we can assist with any queries you may have.

Regards
John

John Zammit | Senior Development Manager | OVERLAND Sun Farming

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Kate Cox

From: John Zammit [john.zammit@overlandsunfarming.com.au]
Sent: Wednesday, 6 June 2018 11:12 AM
To: alodge@balranald.nsw.gov.au
Cc: Andre Pretorius; mkitzelmann@balranald.nsw.gov.au; Kate Cox; Wayne Rolph; William Radford; Niccolo Segato; Brett Thomas
Subject: Limondale Solar Farm - Traffic Management Plan for review
Attachments: J180140 Limondale TMP_V2.0_050618.pdf

Hi Allan,

On behalf of Limondale Sun Farm Pty Ltd please find attached the Traffic Management Plan to be reviewed by the Balranald Shire Council.

If you could please review at your earliest convenience and provide any feedback if required that would be much appreciated.

One of our team will be in touch in the coming days to see if we can assist with any queries you may have.

Regards
John

John Zammit | Senior Development Manager | **OVERLAND Sun Farming**

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