Bomen Solar Farm

Modification Application for alternative heavy vehicle route and laydown areas during construction

Prepared by Renew Estate Pty Ltd
on behalf of Spark Infrastructure and Energy Solutions Pty Ltd

DOCUMENT CONTROL

Control	Details
Project	Bomen Solar Farm
Report	**Modification Application (MOD 1)**
Author(s)	Lauren Lambert (Senior Environmental Planner, Renew Estate)
Current version	V2
Date	19 July 2019
Approved by	James Millar (Spark Infrastructure) Yogen Mathur (Energy Solutions Pty Ltd)

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1. INTRODUCTION

1.1. Background

On 8 October 2018 Development Consent was granted for the construction, operation and decommissioning of a 120 megawatt (MWdc) solar farm and associated infrastructure at Bomen, New South Wales (NSW) (referred to as the 'Project') (DA ref. SSD-8835).

The Project is classified as a State Significant Development (SSD) under State Environmental Planning Policy (State and Regional Development) 2011 and was therefore subject to assessment and determination by the NSW Minister for Planning under Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

The Project commenced construction on 4 June 2019.

1.2. The Purpose of this document

This Modification Application seeks approval from the consent authority (Department of Planning, Industry and Environment (DPIE) for an alternative heavy vehicle access route to site and two laydown areas during construction.

This Modification Application is the first Modification submitted for the Project.

It is considered that the proposed modification is a minor Modification pursuant to Section 4.55 1(A) of the EP&A Act, due to its negligible environmental impact. Further, the project with the proposed modification remains substantially the same development as originally approved.

This Modification Application has been prepared to meet the information requirements requested by DPIE in a scoping meeting held on 24 June 2019.

1.3. The Proponent

The Project was developed by Renew Estate Pty Ltd, and is now owned by Spark Infrastructure who is the proponent of this application. The appointed Engineer Procure Design (EPC) contractor is Energy Solutions Pty Ltd, trading as Beon Energy Solutions (Beon).

Renew Estate is providing ongoing planning assistance as a consultant to Beon and Spark Infrastructure and has prepared this Modification Application on their behalf.

2. DESCRIPTION OF THE PROJECT AS APPROVED

2.1. General overview

This section provides an overview of the Project, as approved.

The Project includes constructing, operating and eventually decommissioning a 120 MWdc solar farm at Bomen, about seven kilometres north-east of the Wagga Wagga central business district (CBD).

Subject to final detailed design, the primary components of the Project include:

- about 400,000 photovoltaic solar modules
- about 4,500 trackers comprising single-axis tracking framing systems mounted on steel piles
- up to 44 power conversion stations including electrical switchgear, inverters and medium voltage transformers
- new on-site electrical switchyard and substation
- connection into the National Electricity Market via about 3.5 kilometres of 132 kV transmission line between the proposed on-site substation and the existing TransGrid Wagga North Substation.
- battery storage system
- control building including office, supervisory control and data acquisition systems, operation and maintenance facilities, spare parts and staff amenities serviced by septic systems and rainwater tanks
- car park
- internal DC and AC cabling for electrical reticulation
- internal all-weather access tracks
- internal fire trail and bushfire asset protection zones
- security fencing around the solar farm
- vegetation screening – plantings along the site boundaries where required and within the site in select areas
- meteorological stations
- subdivision of four lots.

The general layout of the development as approved is shown in Figure 1.

The construction period is expected to be nine to 12 months from site establishment to commissioning.

The operational lifetime of the solar farm is about 30 years.

Decommissioning at the end of the operational life of the solar farm would involve removing all above ground infrastructure and rehabilitating the site to allow it to be used for other purposes.

The land to which the Project applies is:

- Lot 1 DP1249028 (formerly part of Lot 11 DP1130519 prior to subdivision)
- Lot 3 DP1249028 (formerly part of Lot 2 DP590756 prior to subdivision)
- Lot 8 DP1249028 (formerly part of Lot 174 DP751405 prior to subdivision)
- Lot 7 DP1249028 (formerly part of Lot 108 DP751405 prior to subdivision)
- Lot 110 DP751405
- Lot 109 DP751405.

An easement will be established across the below land for the new transmission line:

- Lot 2 DP594679
- East Bomen Road
- Lot 22 DP1085826
- Lot 1 DP1115229 (TransGrid Wagga North substation).

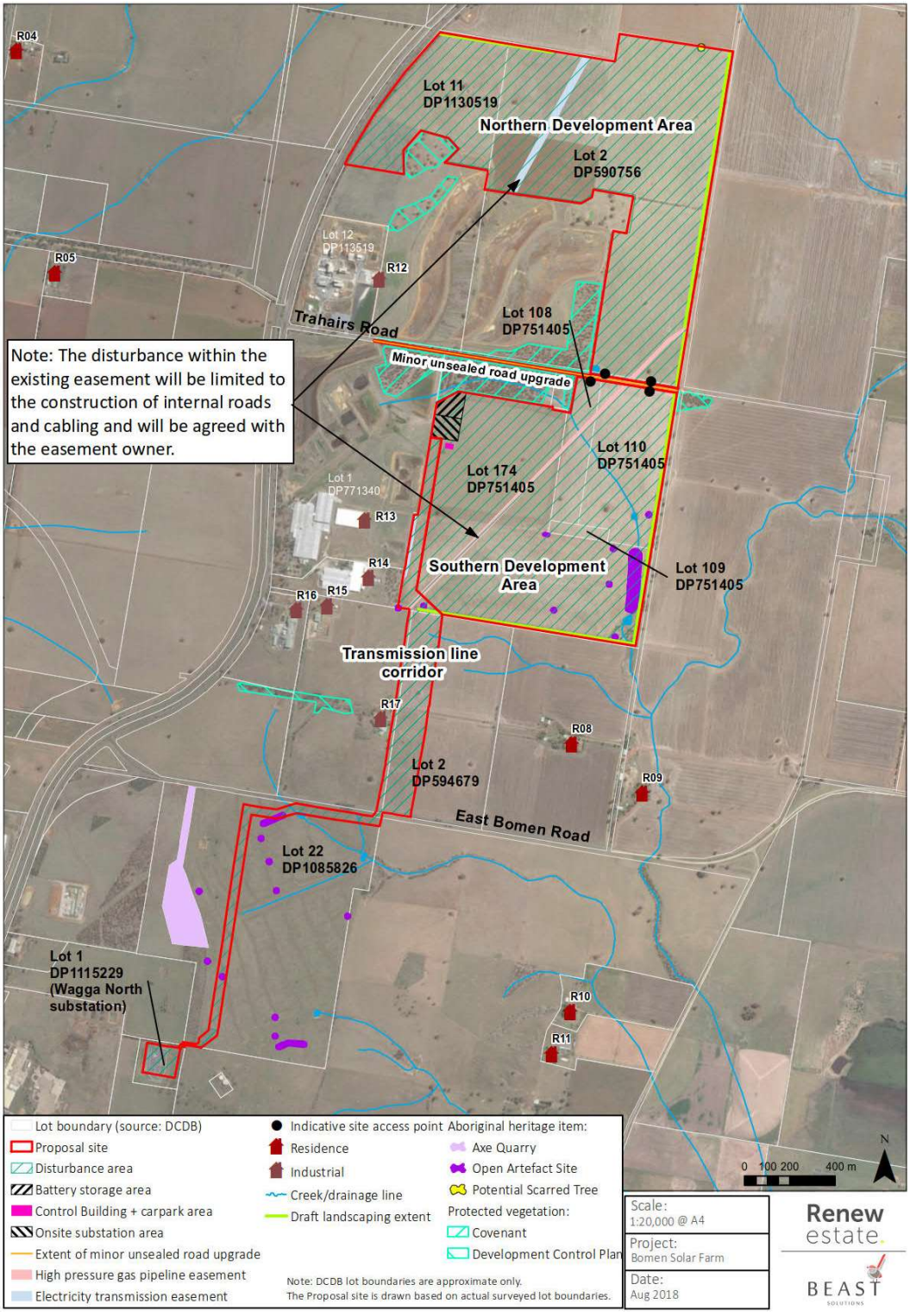


Figure 1 The General Layout of the Development as approved (Appendix 1 of the Development Consent).

2.2. Heavy vehicle access

The heavy vehicle access route as approved is described in Condition 3, Schedule 3 of the Development consent, as copied below:

> *All over-dimensional and heavy vehicles associated with the development must travel to and from the site via the Sturt Highway, Byrnes Road, Eunony Bridge Road and Trahairs Road and the approved site access points (shown in Appendix 1)*[1].

The Council is the road authority for all of the abovementioned roads, except Sturt Highway which is managed by Roads and Maritime Services (RMS).

3. PROPOSED MODIFICATION

3.1. Description of the proposed modification

This Modification Application seeks to obtain approval for an additional heavy vehicle access route (referred to as the 'alternative heavy vehicle route' hereafter) and two laydown areas during construction.

The proposed alternative heavy vehicle route is illustrated in Figure 2 and Figure 3. The proposed laydown areas are shown in Figure 2, Figure 5 and Figure 4. The alternative route and laydown areas are proposed in order to enable some of the Project materials to be transported from port to Bomen via rail and trucks to transport the materials from the rail depot to site, via laydown areas. All other materials not railed to Bomen would still be transported to the site via the currently approved access route (as described in Section 2.2).

The materials transported to Bomen by rail would be delivered to existing rail sidings and associated freight depot located on Jersey Street, in the Bomen Industrial Park southwest of the Project site (Figure 2 and Figure 3). When the freight arrives to the sidings in shipping containers, the containers would be offloaded from the train and stacked adjacent to the sidings at the depot.

Over the days following a rail delivery (i.e. not all at one time), the shipping containers would be picked up at the Jersey Street depot by side-loader trucks and transported by road to one of two laydown areas, both located on Byrnes Road on the currently approved access route (Figure 2). One of the two laydown areas is a warehouse located at 560 Byrnes Road (referred to as Laydown area 1), which will be the laydown site for materials that need to be undercover (Figure 5). The other laydown area (referred to as Laydown area 2) is a hardstand area located at 280 Byrnes Road, which will be the laydown site for materials that don't need to be undercover (Figure 4).

Once the shipping containers arrive at the laydown areas, the materials would be unpacked from the containers and stored until they are required at the Project site. When they are required at the site, the materials would be transported by standard flatbed or curtain sided

[1] the referenced Appendix 1 of the Development Consent is the same figure as Figure 1 of this document.

trailers to the site via Byrnes Road, Trahairs Road, and the approved site access points on Trahairs Road (as per the currently approved access route).

The alternative heavy vehicle route from the Bomen rail sidings/depot on Jersey Street to Byrnes Road where it joins the currently approved access route, is as follows:

- Jersey Street (50 metres): Turn right from the rail depot onto Jersey Street, travel for 50 metres to the intersection with Dorset Drive.
- Dorset Drive (1.5 kilometres): Turn right onto Dorset Drive and travel for 1.5 kilometres to the roundabout intersection with Merino Road.
- Merino Road (300 metres): Turn right onto Merino Road and travel for 300 metres to the roundabout intersection with Byrnes Road. Then turn left onto Byrnes Road (the currently approved heavy vehicle access route).

The route includes an underpass on Merino Road, where it goes under the railway, with a high clearance of 5.4 metres. As such, there are no rail crossings required. All roads of the alternative route are an RMS Approved B Double Route and currently service the Bomen Industrial Park.

All of the roads and intersections subject of the alternative heavy vehicle route are local roads, managed by the Council.

The average number of truck movements between the Bomen rail depot and the laydown areas associated with this modification is expected to be five per day over about a three month period during construction, commencing in July 2019. The five movements would unlikely be concurrent.

The alternative heavy vehicle route, rail sidings/depot, and both of the laydown areas are existing infrastructure and already regularly used for the purposes proposed in this Modification Application. The alternative route is already a regular transport route for heavy vehicles through the Bomen Industrial Park. The rail sidings/depot are already regularly used for the delivery, storage and handling of rail freight in shipping containers. Laydown area 1 is already an operating warehouse used for the storage and handling of materials. Laydown area 2 is already a hardstand area used for the storage and handling of materials.

The rail sidings/depot and part of the alternative heavy vehicle route are located on land zoned SP2 Infrastructure. The remainder of the alternative heavy vehicle route is located on land zoned IN1 General Industrial (Figure 17).

Both of the proposed laydown areas are located on land zoned IN1 General Industrial (Figure 17), and are located adjacent to existing industrial buildings.

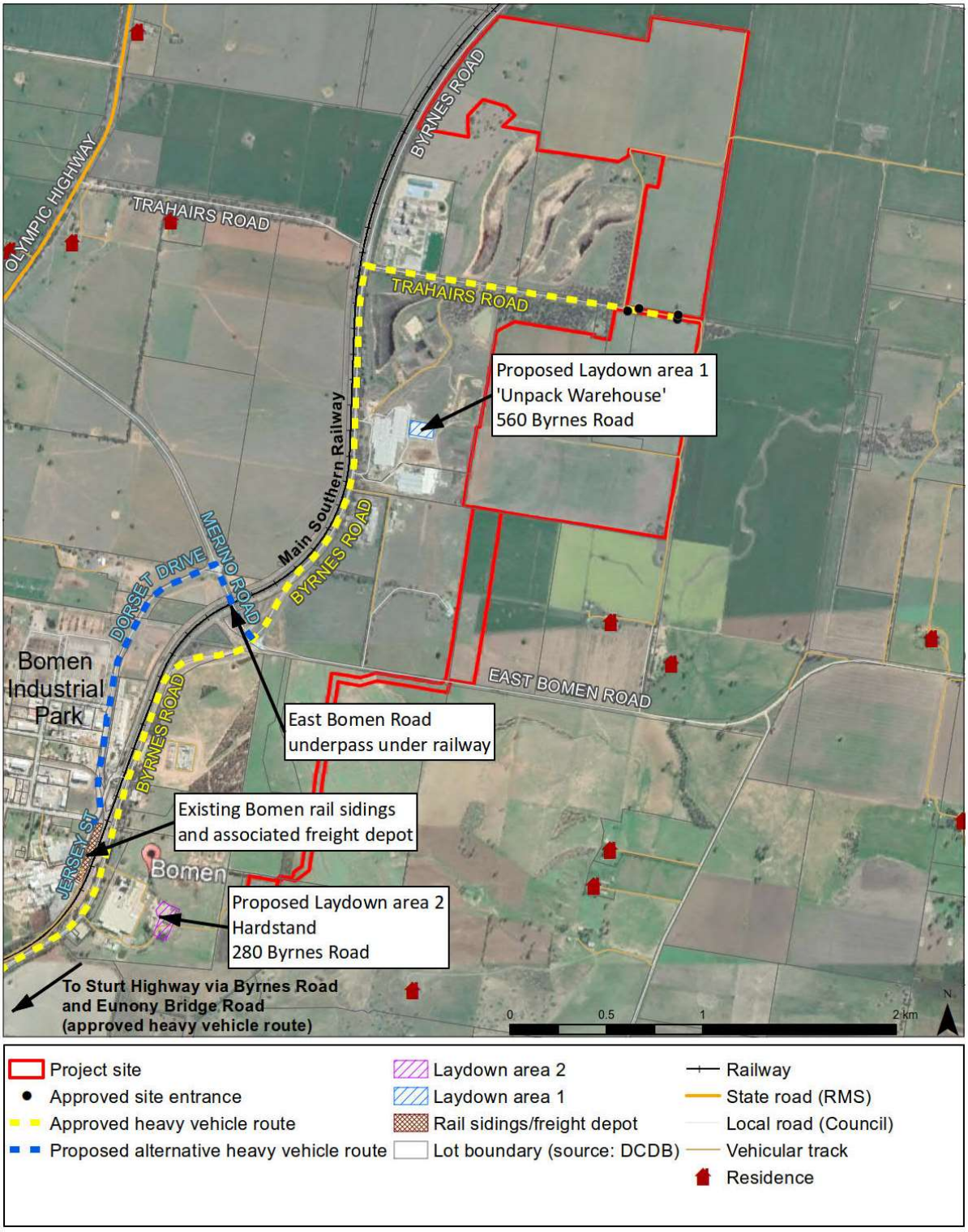


Figure 2 Context of proposed alternative heavy vehicle route and proposed laydown areas. Refer also to following figures.

Figure 3 Proposed alternative heavy vehicle route

Figure 4 Location of Laydown area 1 at 560 Byrnes Road.

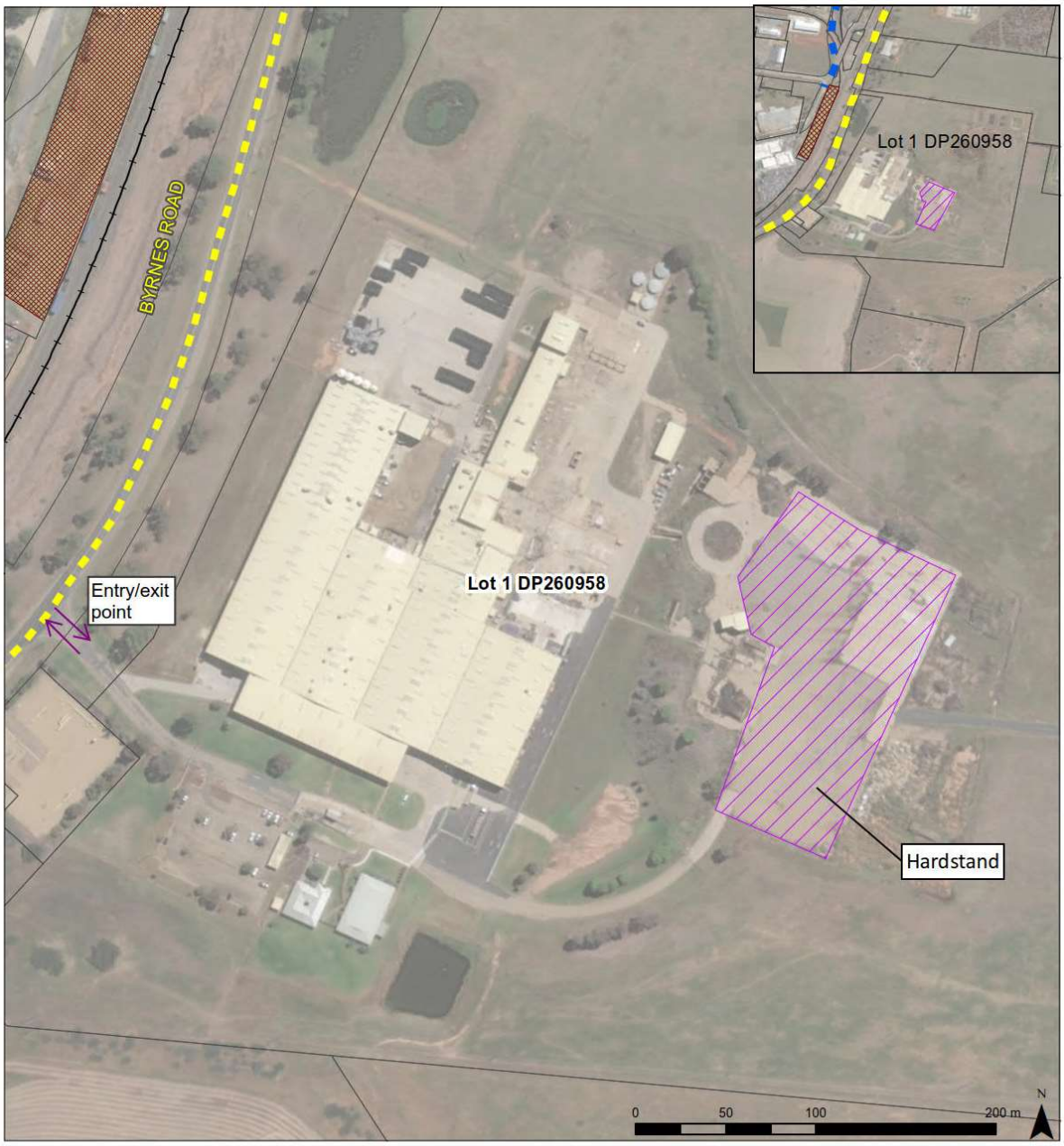


Figure 5 Location of Laydown area 2 at 280 Byrnes Road.

3.2. Land to which the Modification Application applies

The land to which the proposed alternative heavy vehicle route applies are the roadways of alternative route and associated intersections. The corresponding road reserves are owned and managed by Council.

Laydown area 1 is located at 560 Byrnes Road, Bomen, on Lot 1 DP771340. This lot and the warehouse is owned by Riverina Warehousing Solutions Pty Ltd.

Laydown area 2 is located at 280 Byrnes Road, Bomen, on Lot DP260958. This lot and the hardstand area is owned by PJR Investments.

3.3. Suggested change to the Development Consent conditions

The suggested change to the Development Consent conditions to reflect the modification is as follows (new text shown in red):

SCHEDULE 3, TRANSPORT

Condition 3 Access Route

All over-dimensional and heavy vehicles associated with the development must travel to and from the site via the Sturt Highway, Byrnes Road, Eunony Bridge Road and Trahairs Road and the approved site access points (shown in Appendix 1) OR via Jersey Street, Dorset Drive, Merino Road, Byrnes Road, Eunony Bridge Road, Trahairs Road and the approved site access points (shown in Appendix 1).

3.4. Traffic Management Plan revision

The currently approved Traffic Management Plan is Revision 3 dated 21 May 2019. The Traffic Management Plan has been updated (in draft form) to include the alternative heavy vehicle route. This draft is provided in Appendix B, for DPIE approval in conjunction with the Modification approval. The changes to the plan are tracked.

4. JUSTIFICATION

The use of rail to transport materials from port to Bomen has clear benefits for all stakeholders. These are outlined below:

Benefits for the Project owner and EPC contractor: The use of rail rather than road is more time, cost and resource efficient. With available rail sidings conveniently located close to the Project site, it is considered an ideal transport opportunity. It also aligns with the Project owner and EPC contractor's environmental policies being a more sustainable and safe transport option (refer below).

Benefits for the environment and community: The use of rail reduces the number of heavy vehicles travelling to Bomen by road all the way from the shipping port. This in turn reduces road safety hazards for other road users associated with sharing the road with heavy vehicles, increases road capacity, and reduces any impacts on amenity for sensitive receptors located adjacent to the heavy vehicle route (e.g noise, visual, air quality).

The use of trains is also a more environmentally sustainable form of transport compared to trucks, due to the ability to transport shipping containers in bulk.

Benefits for the road authorities: The reduction of heavy vehicle movements benefits the road authorities through the reduction in road safety hazards, increase in road capacity, and reduced contribution to deterioration (albeit the project's contribution to deterioration would be minimal).

5. ASSESSMENT OF IMPACTS

This section provides an assessment of potential impacts associated with the proposed modification.

5.1. Traffic and Transport

5.1.1. Heavy vehicle suitability

The heavy vehicles that would utilise the proposed alternative vehicle route would not exceed 26 metres, in accordance with Condition 3, Schedule 1 of the Development Consent.

The proposed alternative route services the Bomen Industrial Park which comprises industrial facilities and businesses. As such, the route has been designed to cater for frequent use by large heavy vehicles and is an RMS Approved 25/26m B Double Route (refer Figure 6).

The project as approved permits 1 over-dimensional vehicle movement, and this vehicle movement will utilise the currently approved heavy vehicle access route.

Figure 6 Map generated from NSW RMS Combined Higher Mass Limits and Restricted Access Vehicle Map, showing the proposed alternative route as an Approved B Double route. Source: https://www.rms.nsw.gov.au/business-industry/heavy-vehicles/maps/restricted-access-vehicles-map/map/index.html

The sections below provide further details of each of the roads of the proposed alternative heavy vehicle route. Photos of the route from Jersey Street to Byrnes Road are provided in Figure 7 to Figure 15.

Jersey Street

Jersey Street has the following characteristics:

- local road, managed by Council
- sealed
- single carriageway
- RMS Approved B Double Route (refer Figure 6)
- IN1 General Industrial land use zone

Jersey Street accommodates heavy vehicles and is already regularly used by trucks transporting shipping containers to and from the rail depot.

Dorset Drive and Merino Road

Dorset Drive and Merino Road have the following characteristics:

- local roads, managed by Council
- sealed
- single carriageway
- RMS Approved B Double Route (refer Figure 6).
- Part SP2 Infrastructure land use zone and part IN1 General Industrial land use zone.

Dorset Drive and Merino Road were recently upgraded in November 2017 as part of the Council's $35m Bomen Enabling Works project. The purpose of the project was to establish an improved Higher Mass Limit (HML) capable road network, to facilitate the effective and efficient movement of freight to and from markets in Sydney, Melbourne and in the future, Brisbane[2]. The Council have stated that the road upgrade works provide the following benefits[3]:

- Cater for future traffic demand
- Improve and address existing traffic constraints
- Address significant safety concerns
- Stimulate economic growth by opening up industrial zoned land in Bomen Business Park
- Support the potential development of the Riverina Intermodal Freight and Logistics (RiFL) Hub [a future project].

[2] https://www.wagga.nsw.gov.au/city-of-wagga-wagga/business/projects/bomen-business-park
[3] https://wagga.nsw.gov.au/city-of-wagga-wagga/business/projects/bomen-business-park/bomen-enabling-roads

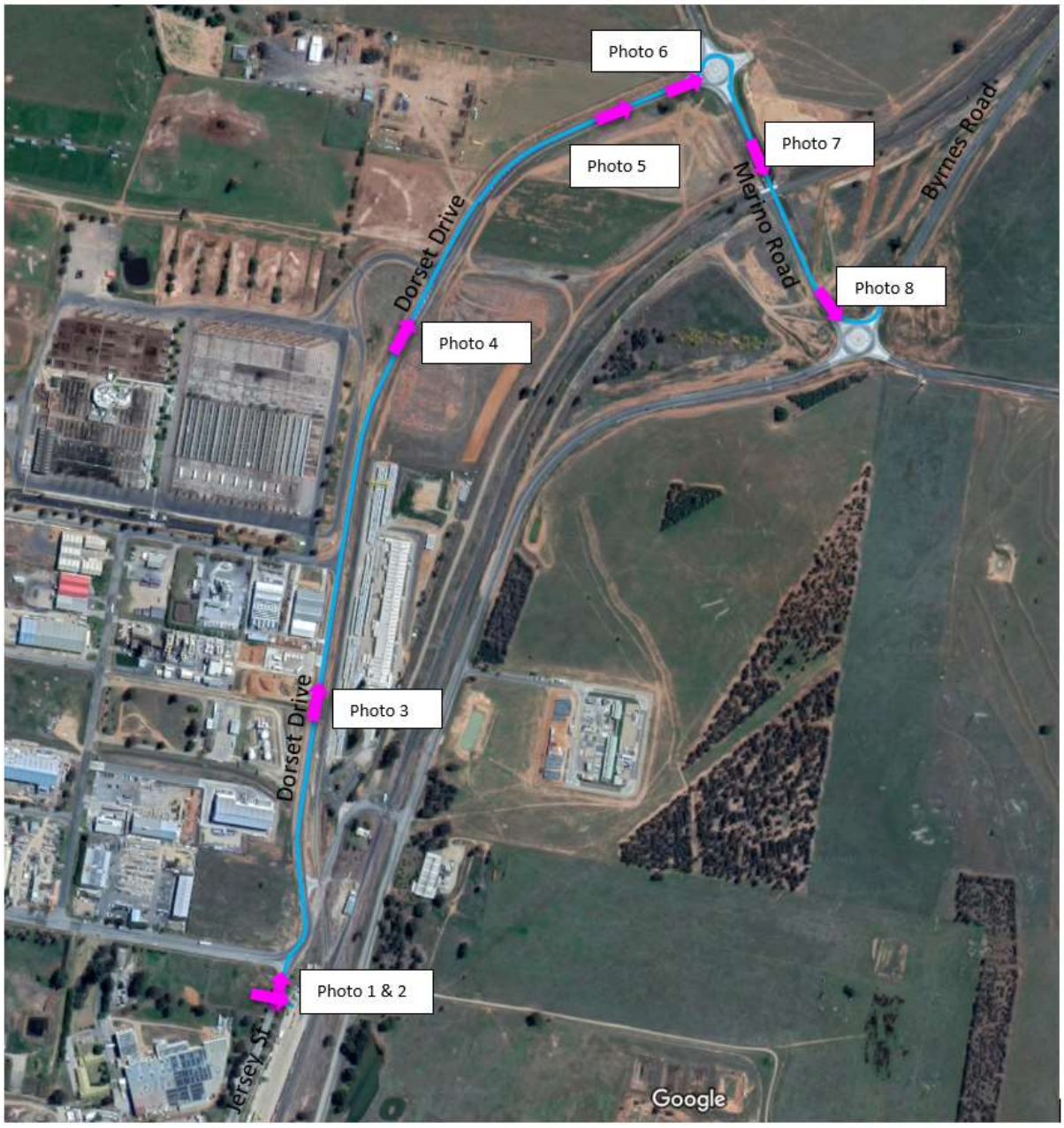


Figure 7 Summary of photo locations along the proposed alternative heavy vehicle route. Refer to photos on the following pages.
Please note Google Maps Street View online should not be used as it has not been updated since the road upgrades in 2017. The photos provided on the following pages should be used instead.

Figure 8 Photo 1: Looking east from Jersey Road to the rail depot driveway/gate entrance.

Figure 9 Photo 2: Looking north from Jersey Street towards the intersection with Dorset Drive.

Figure 10 Photo 3: Looking north on Dorset Drive.

Figure 11 Photo 4: Looking north on Dorset Drive.

Figure 12 Photo 5: Looking northwest from Dorset Drive onto the roundabout intersection with Merino Road.

Figure 13 Photo 6: Looking northwest from Dorset Drive onto the roundabout intersection with Merino Road.

Figure 14 Photo 7: Looking southeast on Merino Road towards the railway underpass (clearance 5.4m).

Figure 15 Photo 8: Looking southeast from Merino Road onto the roundabout intersection with Byrnes Road.

5.1.2. Traffic volumes

The average number of truck movements between the Bomen rail depot and the laydown areas associated with this modification is expected to be five per day over a three month period during construction. The five movements are unlikely to be concurrent. The addition of five movements in a day would have a negligible impact on traffic flows.

Further, as outlined in Section 5.1.1 above, the recent upgrades of Dorset Drive and Merino Road cater for future traffic demand and thus have spare capacity presently.

5.1.3. Safety

As discussed in Section 4, the use of rail reduces the number of heavy vehicles travelling to Bomen by road all the way from the shipping port which in turns reduces the road safety hazards for other road users associated with sharing the road with heavy vehicles.

5.2. Other issues

Table 1 considers other environmental aspects that did not warrant a more detailed assessment, due to negligible or no potential impacts as a result of the proposed modification.

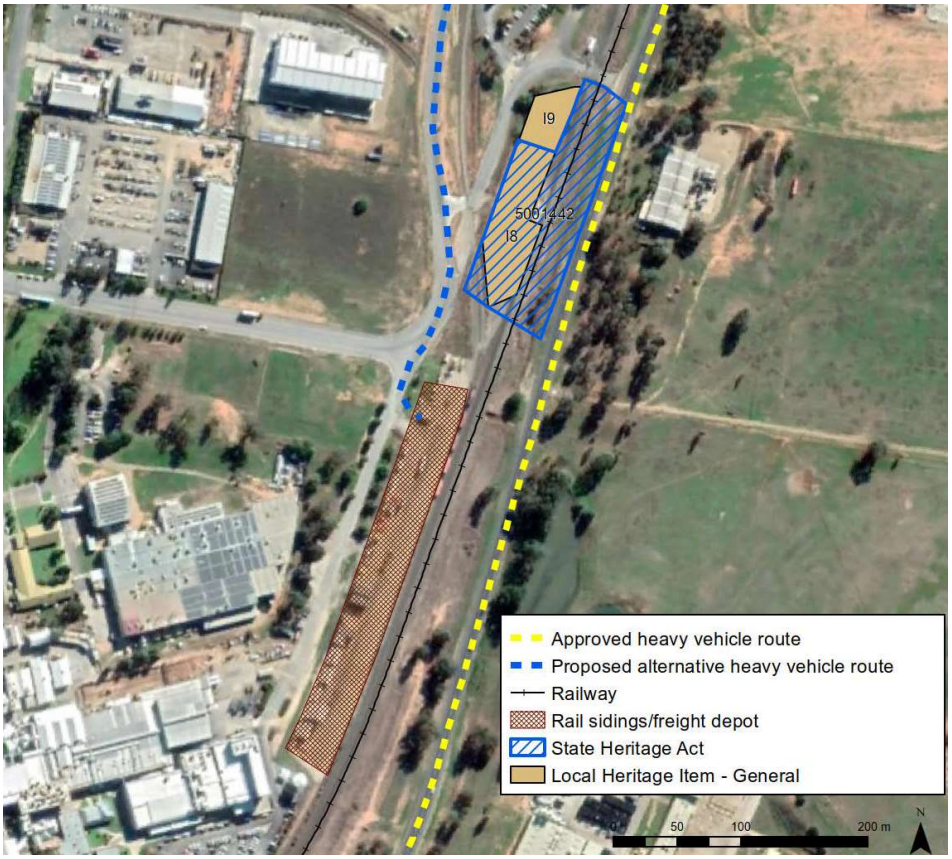
Table 1 Consideration of other environmental aspects

Environmental aspect	Consideration of potential impacts and why further assessment is not warranted.
Aboriginal heritage	There are no recorded Aboriginal heritage items on the land subject to the proposed modification. The proposed modification is highly unlikely to impact undiscovered Aboriginal heritage items as the alternative heavy vehicle route, rail depot, and both of the laydown areas are confined to existing hardstand areas with no ground disturbance proposed. Further, this infrastructure is existing and already regularly used for the purposes proposed in this modification.
Biodiversity	There would be no impacts to flora or fauna as a result of the proposed modification. The alternative heavy vehicle route, rail depot, and both of the laydown areas are confined to existing hardstand areas and there would be no ground disturbance or disturbance to vegetation. Further, this infrastructure is existing and already regularly used for the purposes proposed in this modification.
Landscape and Visual	The proposed modification would not result in any landscape or visual impacts. The alternative heavy vehicle route, rail depot, and both of the laydown areas are existing infrastructure and already regularly used for the purposes proposed in this modification. There would be no changes to receptor views or change in landscape character.
Hazard and Risk	The proposed modification will not result in any hazards or risks additional to those assessed in the EIS. Further, the alternative heavy vehicle route, rail depot, and both of the laydown areas are existing

Environmental aspect	Consideration of potential impacts and why further assessment is not warranted.
	infrastructure and already regularly used for the purposes proposed in this modification. The reduction in the number of heavy vehicles travelling to Bomen by road all the way from the shipping port has a positive impact on safety, as it reduces the road safety hazards for other road users associated with sharing the road with heavy vehicles.
Noise and Vibration	The proposed modification would not result in any adverse noise and vibration impacts. The alternative heavy vehicle route, rail depot, and both of the laydown areas are existing infrastructure and already regularly used for the purposes proposed in this modification. The proposed alternative heavy vehicle route is through an industrial area (predominantly zoned IN1 General Industrial) where all receptors within a 1 kilometre radius are industrial receptors (refer Figure 17). The rail depot and route itself is on land zoned SP2 Infrastructure and IN1 General Industrial. The closest residential receptors are approximately 1.2 kilometres away from the alternative route. Both of the laydown areas are on land zoned IN1 General Industrial (Figure 17). The closest residential receptors are 1 kilometre away from Laydown area 1 and 0.5 kilometres from Laydown area 2. No residences are likely to be affected by the noise generated from the addition of five heavy vehicle movements in a day to/from the rail depot and laydown areas due the minimal noise generated from five (likely nonconcurrent) heavy vehicle movements, their distance from the route and laydown areas, and the fact that the rail depot, alternative route and both of the laydown areas are already being regularly used for the purposes proposed. Further, the Noise and Vibration Assessment undertaken for the EIS (GHD, Feb 2018) states that if road traffic noise increases from construction is within 2dBA of current levels (at sensitive receivers) then the objectives of the NSW Road Noise Policy (DECCW 2011) are achieved. Traffic noise from the additional five (likely nonconcurrent) vehicles per day to/from the rail report and laydown areas is likely to be negligible at residential receivers, and easily within 2dBA of current levels, due to their distance from the proposed additional movements. For comparison, noise levels from an additional 30 heavy vehicles per day along Byrnes Road and Eunony Bridge Road were modelled in the Noise and Vibration Assessment undertaken for the EIS (GHD, Feb 2018). The increased noise levels experienced at residential receivers within 30 metres of the roads were less than 2dBA. This demonstrates that a significant increase in traffic volumes is required to increase road traffic

Environmental aspect	Consideration of potential impacts and why further assessment is not warranted.
	noise by 2dBA. Five additional heavy vehicle movements a day is negligible.
Hydrology, groundwater and water quality	The proposed modification would not impact hydrology, groundwater or water quality. The alternative heavy vehicle route, rail depot, and both of the laydown areas are confined to existing hardstand areas with no proposed ground disturbance or interaction with watercourses. Further, this infrastructure is existing and already regularly used for the purposes proposed in this modification.
Electric and Magnetic Fields	The proposed modification would not generate or interfere with electric and magnetic fields.
Soils and geology	The proposed modification would not impact soils or geology. The alternative heavy vehicle route, rail depot, and both of the laydown areas are confined to existing hardstand areas with no ground disturbance proposed. Further, this infrastructure is existing and already regularly used for the purposes proposed in this modification.
Socio-economic	The proposed modification would not have adverse socio-economic impacts. Residential receptors would not be adversely affected by visual, noise or air quality impacts due to their significant distance from the alternative route and laydown areas, as well as the fact that there is no change in land use at these locations, with the infrastructure already being regularly used for the purposes proposed. The closest residential receptors are more than 1 kilometre away from the alternative route, more than 1 kilometre away from Laydown area 1 and more than 500 metres from Laydown area 2. The delivery of materials to Bomen via rail would have a positive impact on the community through the removal heavy vehicles from the road, resulting in reduced traffic hazards, and through being a more sustainable form of transport.
Air quality and climate change	The proposed modification would not have additional impacts to air quality. The alternative heavy vehicle route, rail depot, and both of the laydown areas are confined to existing hardstand areas with dust unlikely to be generated. Further, this infrastructure is existing and already regularly used for the purposes proposed in this modification. Any trucks transporting loose materials will be covered, in accordance with the Project Traffic Management Plan. The proposed modification would have a positive impact on air quality and climate change, through the reduction of vehicle emissions

Environmental aspect	Consideration of potential impacts and why further assessment is not warranted.
	associated with the use of bulk transport by rail, instead of road transport.
Non-Aboriginal heritage	The proposed modification is highly unlikely to impact historical heritage items. Located near the alternative vehicle route and rail depot is the Bomen Railway Station (ID I8/5001442) listed on both the State Heritage Register and on the Wagga Wagga Local Environmental Plan 2010 (LEP). This station is not operational or open to visitors. Immediately north of the Bomen Railway Station is the Bomen Stationmasters's Residence (IDI9), listed on the LEP (refer Figure 16). The curtilage of the Bomen Railway Station listed on the State Heritage Register (ID 5001442) extends adjacent to, but not encroaching, the road reserve of the proposed alternative route to its southwest and also the currently approved heavy vehicle route to its east. The curtilage of the Bomen Railway Station (ID I8) as listed on the LEP is a smaller area, and is located >20m from the road reserve of the proposed alternative route and >60m from the rail depot. While these heritage items are near the proposed alternative route and depot, the use of the alternative route and the rail depot will not impact the heritage items. The land to which the heritage listings apply will not be encroached, and the alternative heavy vehicle route and the depot are already regularly used for the delivery of rail, storage of shipping

Environmental aspect	Consideration of potential impacts and why further assessment is not warranted.
	containers, and loading of trucks, therefore there is no change to the current land use near the heritage items.  *Figure 16 Location of historical heritage items near the proposed alternative route and rail depot.*
Waste management	The proposed modification will not generate any additional waste to that assessed in the EIS.
Cumulative Impacts	A search of pending and approved development applications was undertaken on the Wagga Wagga City Council website and NSW Major Projects Portal on 25 June 2019. No developments that could have a cumulative impact with the proposed modification were identified.

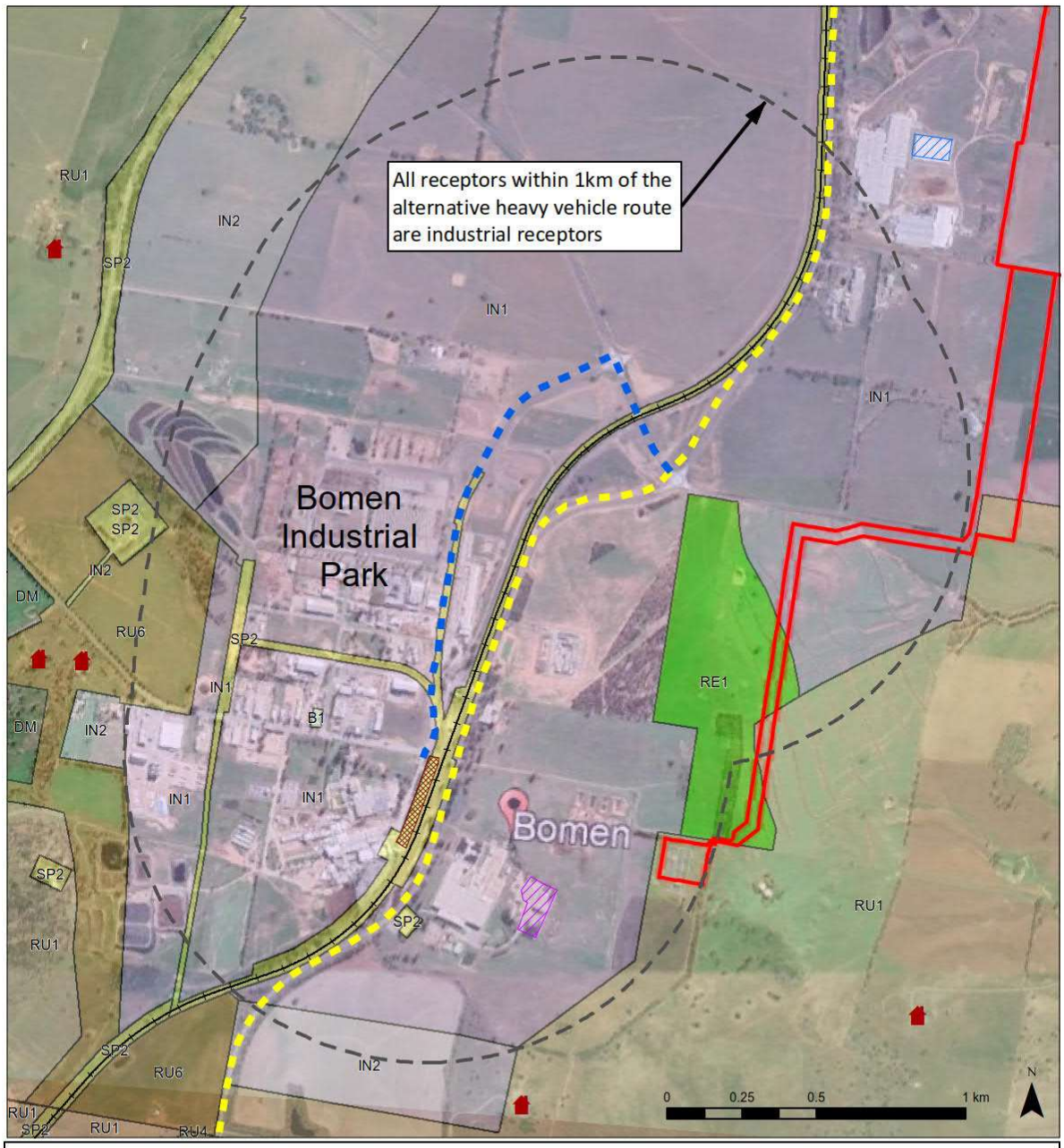


Figure 17 Altnernative heavy vehicle route receptors

6. ENGAGEMENT UNDERTAKEN

6.1. Community

Consultation with the community regarding the proposed modification has not been undertaken as it is not considered necessary due to negligible impacts.

The proposed alternative heavy vehicle route is through an industrial area where all receptors within a 1 kilometre radius are industrial receptors (refer Figure 17). Both of the laydown areas are also on industrial land. The closest residential receptors are approximately 1.2 kilometres away from the alternative route, 1 kilometre away from Laydown area 1 and 0.5 kilometres from Laydown area 2.

Residential receptors would unlikely be affected by the proposed modification due to their significant distance from the alternative route and laydown areas, as well as the fact that there is no change in land use at these locations, with the infrastructure already being regularly used for the purposes proposed. The addition of five heavy vehicle movements in a day to/from the rail depot and laydown areas, over a three month period, is a negligible change from the existing environment.

6.2. Wagga Wagga City Council

On 19 June 2019 Renew Estate sought endorsement from the Council regarding the proposed alternative heavy vehicle route, for which the Council is the road authority. On 25 June 2019, Council confirmed they had no objection to the proposal and also confirmed that the proposed route was an RMS Approved B Double Route. A copy of the correspondence is provided in Appendix A.

7. EVALUATION

This Modification Application demonstrates that the proposed modification has a negligible impact on the environment and community, for the reasons summarised below.

- The alternative heavy vehicle route, rail depot, and the both of the laydown areas are existing infrastructure and already regularly used for the purposes proposed.
- The proposed alternative heavy vehicle route is through an industrial area where all receptors within a 1 kilometre radius are industrial receptors. Both of the laydown areas are also on industrial land.
- The addition of an average of five movements per a day to/from the rail depot and laydown areas, over a three month period, would be a negligible change to the existing environment.
- Residential receptors would unlikely be affected by the proposed modification due to their significant distance from the alternative route and laydown areas, as well as the fact that there is no change in land use at these locations, with the infrastructure already being regularly used for the purposes proposed.

- The proposed alternative route is suitable for heavy vehicles, as is it an RMS Approved B Double Route which currently services the industrial area. There are also no rail crossings due to the high clearance railway underpass on Merino Road.
- The delivery of materials to Bomen via rail has a positive impact on the environment and community through the removal heavy vehicles from the road and associated reduction in traffic hazards, amenity impacts, and increased road capacity. The use of rail is also a more sustainable form of transport.

APPENDIX A – COUNCIL ENDORSEMENT

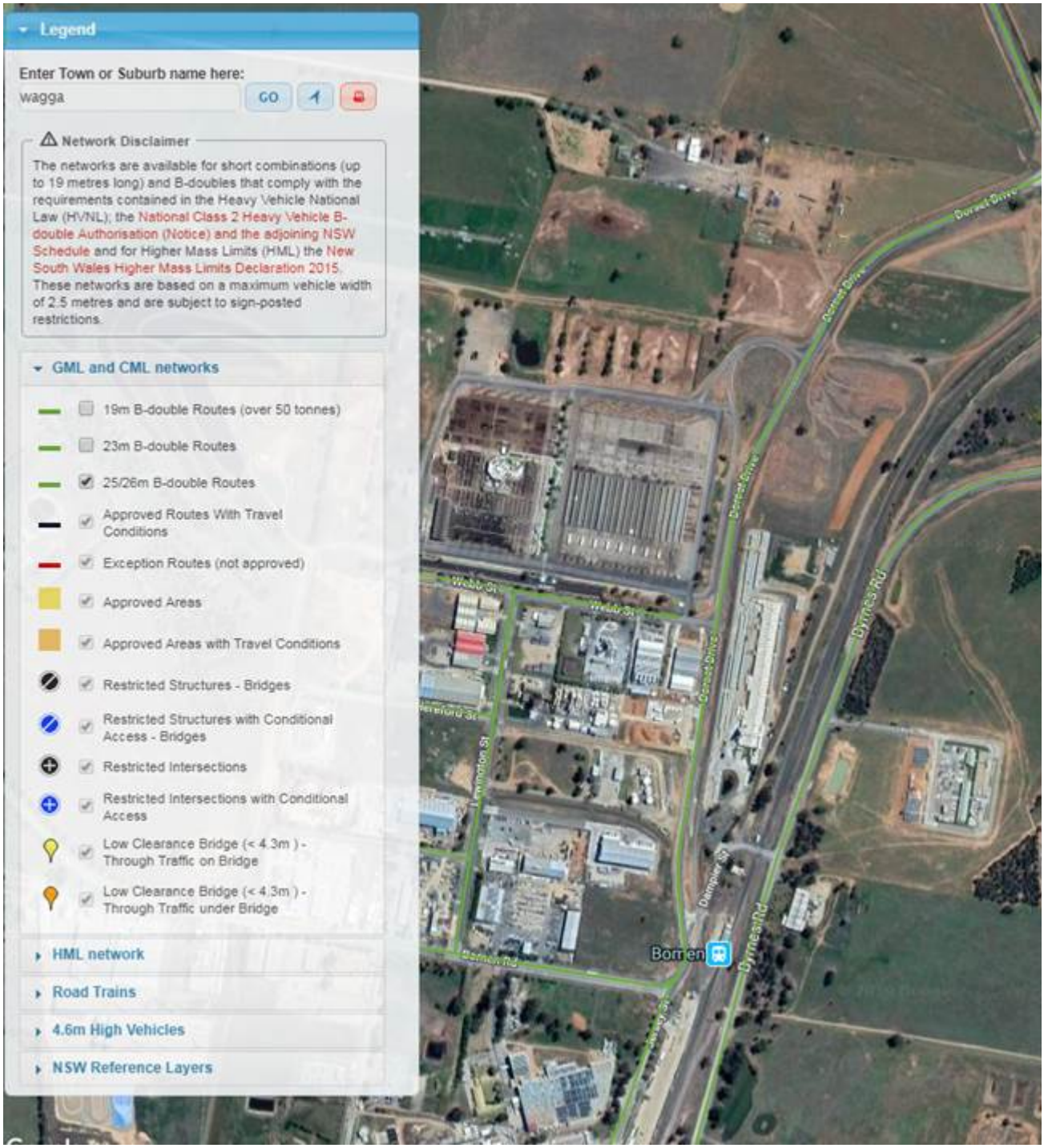
Lauren | Renew Estate

From: Stander, Adriaan <stander.adriaan@wagga.nsw.gov.au>
Sent: Wednesday, 26 June 2019 9:38 PM
To: Lauren | Renew Estate
Subject: Fwd: Bomen Solar Farm - alternative heavy vehicle route from Bomen rail sidings

Hi Lauren. See advice below. With this in mind, we have no objection to the request.

Begin forwarded message:

> **From:** "Shrestha, Tulshi" <Shrestha.Tulshi@wagga.nsw.gov.au>
> **Date:** 25 June 2019 at 11:15:52 am AEST
> **To:** "Stander, Adriaan" <stander.adriaan@wagga.nsw.gov.au>
> **Subject: RE: Bomen Solar Farm - alternative heavy vehicle route from Bomen rail sidings**
>
> Hi Adriaan,
> I had a quick look of the approved B Double Routes. It appears in the link below that the proposed route is already gazetted as B Double route.
> Could you please suggest Lauren about this.
>
> https://www.rms.nsw.gov.au/business-industry/heavy-vehicles/maps/restricted-access-vehicles-map/map/index.html
>
> Thanks.



Regards,
Tulshi

From: Stander, Adriaan <stander.adriaan@wagga.nsw.gov.au>
Sent: Monday, 24 June 2019 5:36 PM
To: Shrestha, Tulshi <Shrestha.Tulshi@wagga.nsw.gov.au>
Subject: FW: Bomen Solar Farm - alternative heavy vehicle route from Bomen rail sidings

Hi Tulshi,

In the absence of Peter Ross, can you please provide comment to the request below? I've highlighted the bit that requires a response from you in yellow.

Thanks,

Adriaan Stander
Strategic Planning Coordinator

1300 292 442
d +61 2 6926 9564 **| m**
e Stander.Adriaan@wagga.nsw.gov.au
Wagga Wagga City Council · 243 Baylis Street (PO Box 20) · Wagga Wagga NSW 2650

From: Lauren | Renew Estate <Lauren@renewestate.com.au>
Sent: Monday, 24 June 2019 2:58 PM
To: Stander, Adriaan <stander.adriaan@wagga.nsw.gov.au>
Subject: RE: Bomen Solar Farm - alternative heavy vehicle route from Bomen rail sidings

Hi Adriaan

Just wondering if you have had the chance to look at this yet?

Kind regards

Lauren Serjeantson
Environmental Planner

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Re.

From: Lauren | Renew Estate
Sent: Wednesday, 19 June 2019 2:12 PM
To: Stander, Adriaan <stander.adriaan@wagga.nsw.gov.au>
Cc: Kell, Tristan <kell.tristan@wagga.nsw.gov.au>; Mathur, Yogen <ymathur@beon-es.com.au>; Coburn, Justin <jucoburn@beon-es.com.au>
Subject: Bomen Solar Farm - alternative heavy vehicle route from Bomen rail sidings

Good afternoon Adriaan

As you know, construction of Bomen Solar Farm commenced a couple of weeks ago and soon many of the materials will begin to be delivered to site. One of our logistics contractors, Seaway Logistics, is proposing to send some of the project materials to Bomen via rail, specifically to the rail sidings in the Bomen Industrial Park, located on Jersey Street. We

consider this to be a great outcome because it removes heavy vehicles from the road, and is a more sustainable form of transport.

However, for the transport of the materials from the rail sidings to the project site by trucks, a DA modification is required from Department of Planning and Environment (DPE) for approval of this alternative heavy vehicle route. Currently the approved heavy vehicle route to site is Sturt Highway > Eunony Bridge Road > Byrnes Road > Trahairs Road.

The route from the rail sidings is shown below (blue dashed line), and follows Jersey Street, Dorset Drive and East Bomen Road before joining up with the currently approved heavy vehicle route on Byrnes Road.

It is proposed to DPE that the DA modification is assessed as a Minor Modification with no public exhibition. We consider this alternative heavy vehicle route to have negligible impact on the environment and community for the following key reasons:

- The alternative route is through an industrial area (Bomen Industrial Park)

- The alternative route is along roads that are suited for heavy vehicles, currently servicing the industrial area. There are also no rail crossings due to the railway underpass on East Bomen Road.

- The closest residential receptors are more than 1km away from the alternative route and therefore will not be affected.

- The average daily number of truck movements along the alternative route is 5 per day over a three month period (commencing July 2019) thereby having a negligible impact on traffic flows.

- The delivery of materials to Bomen via rail has an overall positive impact on the environment and community through the removal heavy vehicles from the road, and being a more sustainable form of transport.

As Council is the road authority for these roads, we would like to seek your endorsement of this alternative heavy vehicle route.

Further, while the specifications of these roads are clearly suited for heavy vehicles and currently carries heavy vehicles travelling within the Bomen Industrial Park, it would be very appreciated if your response could also verify that these roads are suited for heavy vehicles. If you have any information on specifications of these roads I can include this in our DA modification application to demonstrate they are suitable. I note that the East Bomen Road and Dorset Drive components of the route were recently constructed (completed Nov 2017) and can carry a B-Triple vehicle.

We look forward to your response.

Kind regards

Lauren

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APPENDIX B – REVISED TRAFFIC MANAGEMENT PLAN

Bomen Solar Farm

Traffic Management Plan

Prepared by Renew Estate Pty Ltd
for Energy Solutions Pty Ltd

DOCUMENT CONTROL SHEET

Control	Details
Prepared for	Energy Solutions Pty Ltd (Beon)
Project	Bomen Solar Farm
Report	**Traffic Management Plan**
Author(s)	Lauren Serjeantson (Renew Estate Pty Ltd)
Current version	V4
Date	19/07/2019
Approved by	Will Stone (Renew Estate) and Yogen Marthur (Beon)

Version	Date	Details	Approval
V1	15/03/2019	For RMS and Council review	Will Stone (Renew Estate)
V2	29/04/2019	Updated to address RMS comments on V1	Yogen Mathur (Beon)
V3	21/05/2019	Updated to address DPE comments on V2	Yogen Mathur (Beon)
V4	19/07/2019	Updated to add alternative heavy vehicle route and laydown areas	Yogen Mathur (Beon)

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ABBREVIATIONS AND DEFINITIONS

CBD	Central Business District
CoC	Condition of Consent
Council	Wagga Wagga City Council
DP&E	Department of Planning and Environment
EIS	Environmental Impact Statement
EPC	Engineer Procure Construct
Heavy Vehicle	A vehicle that has a combined Gross Vehicle Mass or Aggregate Trailer Mass of more than 4.5 tonnes.
HSEQ	Health, Safety, Environment and Quality
HVNL	Heavy Vehicle National Law
Incident	A set of circumstances that causes or threatens to cause material harm to the environment.
Material harm	Is harm that: • involves actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial; or • results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding $10,000 (such loss includes the reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment
MW	Megawatt
NHVR	National Heavy Vehicle Regulator
NSW	New South Wales
O&M	Operation and maintenance
OSOM	Oversize Overmass
RE	Renew Estate
RMS	Roads and Maritime Services
Site	As shown in Appendix 1 of the Development Consent and Figure 2 of this TMP.
SSD	State Significant Development
SoC	Statement of Commitment
Vehicle movement	One vehicle entering and leaving the site (i.e. two-way).

1. PURPOSE OF THIS DOCUMENT

Development Consent has been granted by the NSW Department of Planning and Environment (DP&E) for the construction, operation and decommissioning of a 120 megawatt (MWdc) solar farm and associated infrastructure at Bomen, New South Wales (NSW) (referred to as the 'Project').

This document addresses Schedule 3, Condition 6 of the Development Consent which requires the preparation of a Traffic Management Plan (TMP) prior to the commencement of construction. Table 1 lists the relevant Conditions of Consent (CoC) and Statement of Commitments (SoC) and where they are addressed in this TMP.

Table 1 Conditions of Consent relevant to the TMP and where they are addressed

Condition of Consent	Where addressed
Over-Dimensional and Heavy Vehicle Restrictions	
Schedule 3, Condition 1 The Applicant must ensure that the: (a) development does not generate more than: • 30* heavy vehicle movements a day during construction, upgrading or decommissioning; • 1 over-dimensional vehicle movement during construction, upgrading and decommissioning; and • 6 heavy vehicle movements a day during operations; on the public road network; (b) length of any vehicles (excluding over-dimensional vehicles) used for the development does not exceed 26 metres, unless the Secretary agrees otherwise.	Section 9 and 13
Schedule 3, Condition 2 The Applicant must keep accurate records of the number of over-dimensional and heavy vehicles entering or leaving the site each day.	Section 13
Access Route	
Schedule 3, Condition 3 All over-dimensional and heavy vehicles associated with the development must travel to and from the site via the Sturt Highway, Byrnes Road, Eunony Bridge Road and Trahairs Road and the approved site access points (shown in Appendix 1) OR via Jersey Street, Dorset Drive, Merino Road, Byrnes Road, Eunony Bridge Road, Trahairs Road and the approved site access points (shown in Appendix 1).	Section 7.3 and 13
Road Upgrades	
Schedule 3, Condition 4 Prior to the commencement of construction, the Applicant must undertake road upgrade works on sections of Trahairs Road, as specified in the EIS (shown in Appendix 1) to the satisfaction of Council.	Section 7.5

Condition of Consent	Where addressed
Operating Conditions (Transport)	
Schedule 3, Condition 5 The Applicant must ensure: (a) the internal project site roadways are constructed as all-weather roads; (b) there is sufficient parking on site for all vehicles, and no parking occurs on the public road network in the vicinity of the site; (c) the capacity of the existing road drainage network is not reduced; (d) all vehicles are loaded and unloaded on site, and enter and leave the site in a forward direction; and (e) development-related vehicles leaving the site are in a clean condition to minimise dirt being tracked onto the sealed public road network.	Section 13
Traffic Management Plan	
Schedule 3, Condition 6 Prior to the commencement of construction, the Applicant must prepare a Traffic Management Plan for the development in consultation with RMS and Council, and to the satisfaction of the Secretary. This plan must include:	This document
(a) details of the transport route to be used for all development-related traffic, including the location of access points;	Section 7
(b) a protocol for undertaking independent dilapidation surveys to assess the: • existing condition of local roads on the transport route prior to construction, upgrading or decommissioning activities; and • condition of local roads on the transport route following construction, upgrading or decommissioning activities;	Section 11
(c) a protocol for the repair of any local roads identified in the dilapidation surveys to have been damaged during construction, upgrading or decommissioning works;	Section 11
(d) details of the road upgrade works required by condition 4 of Schedule 3;	Section 7.5
(e) details of the measures that would be implemented to minimise traffic safety issues and disruption to local users of the transport route during construction, upgrading or decommissioning works, including: • the movement of vehicles on local road network within the site; • temporary traffic controls, including detours and signage;	Section 12, Section 13, Section 14.3

Condition of Consent	Where addressed
• notifying the local community about project-related traffic impacts; • procedures for receiving and addressing complaints from the community about development related traffic; • minimising potential for conflict with school buses and other motorists as far as practicable; • scheduling of haulage vehicle movements to minimise convoy length or platoons; • responding to local climate conditions that may affect road safety such as fog, dust, wet weather; • responding to any emergency repair or maintenance requirements; and • a traffic management system for managing over-dimensional vehicles; and (f) a driver's code of conduct that addresses: • travelling speeds; • driver fatigue; • procedures to ensure that drivers adhere to the designated transport route/s; and • procedures to ensure that drivers implement safe driving practices.	Appendix A
Following the Secretary's approval, the Applicant must implement the Traffic Management Plan.	-
Operating Conditions (Hazards)	
Schedule 3, Condition 24 The Applicant must: (b) ensure that the development: - includes at least a 10 metre defendable space around the perimeter of the solar array area that permits unobstructed vehicle access;	Section 8.1 and 13

* The Secretary has agreed to a maximum number of 60 heavy vehicle movements per day during construction (see Section 9.2)

Table 2 Statements of commitment relevant to the TMP and where they are addressed

Statement of Commitment	Where addressed
Traffic, transport and access - traffic impacts during construction	
A Traffic Management Plan shall be prepared in consultation with Council and Roads and Maritime Services which addresses, but not necessarily be limited to the following;	This document

Statement of Commitment	Where addressed
• Require that all vehicular access to the site be via the approved access route.	Section 7 and 13
• Details of traffic routes to be used by heavy and light vehicles, and any associated impacts and any road-specific mitigation measures.	Section 7 and 13
• Details of measures to be employed to ensure safety of road users and minimise potential conflict with project generated traffic.	Section 13
• Proposed hours for construction activities, as night time construction presents additional traffic related issues to be considered.	Section 5.4
• The management and coordination of the movement of vehicles for construction and worker related access to the site and to limit disruption to other motorists, emergency vehicles, school bus timetables and school zone operating times.	Section 13
• Loads, weights and lengths of haulage and construction related vehicles and the number of movements of such vehicles,	Section 9
• Procedures for informing the public where any road access will be restricted as a result of the project,	Section 12
• Any proposed precautionary measures such as signage to warn road users such as motorists about the construction activities for the project,	Section 13
• A Driver Code of Conduct to address such items as; appropriate driver behaviour including adherence to all traffic regulations and speed limits, safe overtaking and maintaining appropriate distances between vehicles, etc and appropriate penalties for infringements of the Code,	Appendix A
• Details of procedures for receiving and addressing complaints from the community concerning traffic issues associated with truck movements to and from the site	Section 14.3
• Appropriate exclusion barriers, signage and site supervision are to be employed at all times to ensure that the works area is controlled and that unauthorised vehicles and pedestrians are excluded from the works area.	Section 13
• All traffic control devices are to be in accordance with AS 1742.3-2009 – 'Manual of uniform traffic control Devices: Traffic control for works on roads' and the Roads and Maritime Services 'Traffic control at worksites manual'.	Section 13

Statement of Commitment	Where addressed
• A condition assessment of Trahairs Road will be conducted before and after construction.	Section 11
• If glint or glare from the solar panels is demonstrated to be a nuisance, distraction and/or hazard to the public road, glare mitigation measures shall be implemented.	Section 13
Hazards and risk – vehicle interactions	
Prepare a construction traffic management plan including standard traffic rules and signage.	This document
Implement site speed limits.	Appendix A
Provide designated pedestrian areas.	Section
Ensure driver competency.	Section 13
Land use – biosecurity risk	
Ensure construction vehicles are clean and are parked in a designated area away from livestock or crops.	Section 13
Ensure construction vehicles remain on designated tracks.	Section 13
Hydrology and water quality – contamination of surface water	
Vehicle wash downs and/or concrete truck washouts will be carried out within a designated bunded area on an impervious surface or carried out off-site.	Section 13
Air quality – dust emissions	
All trucks will be covered when transporting loose materials to and from the site.	Section 13
Maximum speed limits will be enforced for construction traffic within the site to limit dust generation.	Appendix A
Construction equipment, machinery and vehicles will be appropriately sized for the task.	Section 13
Machinery and equipment will be serviced regularly to ensure it is operating efficiently.	Section 13
Energy efficiency and related carbon emissions will be considered in the selection of vehicles and machinery	Section 13
Local suppliers will be used to limit transport where practicable.	Section 13

Statement of Commitment	Where addressed
Cumulative Impacts	
The construction traffic management plan will consider other developments that may be under construction to minimise traffic conflict and congestion that may occur due to the cumulative increase in construction vehicle traffic.	Section 13

2. RELATED DOCUMENTS

This TMP sits among a suite of management plans prepared for the Project. An overview of the management plan framework and the relationship to the TMP is illustrated in Figure 1.

The Environmental Management Strategy document is the overarching environmental management document for the Project, providing an overview of the Project, the statutory context and strategic framework for achieving compliance with the Project Development Consent.

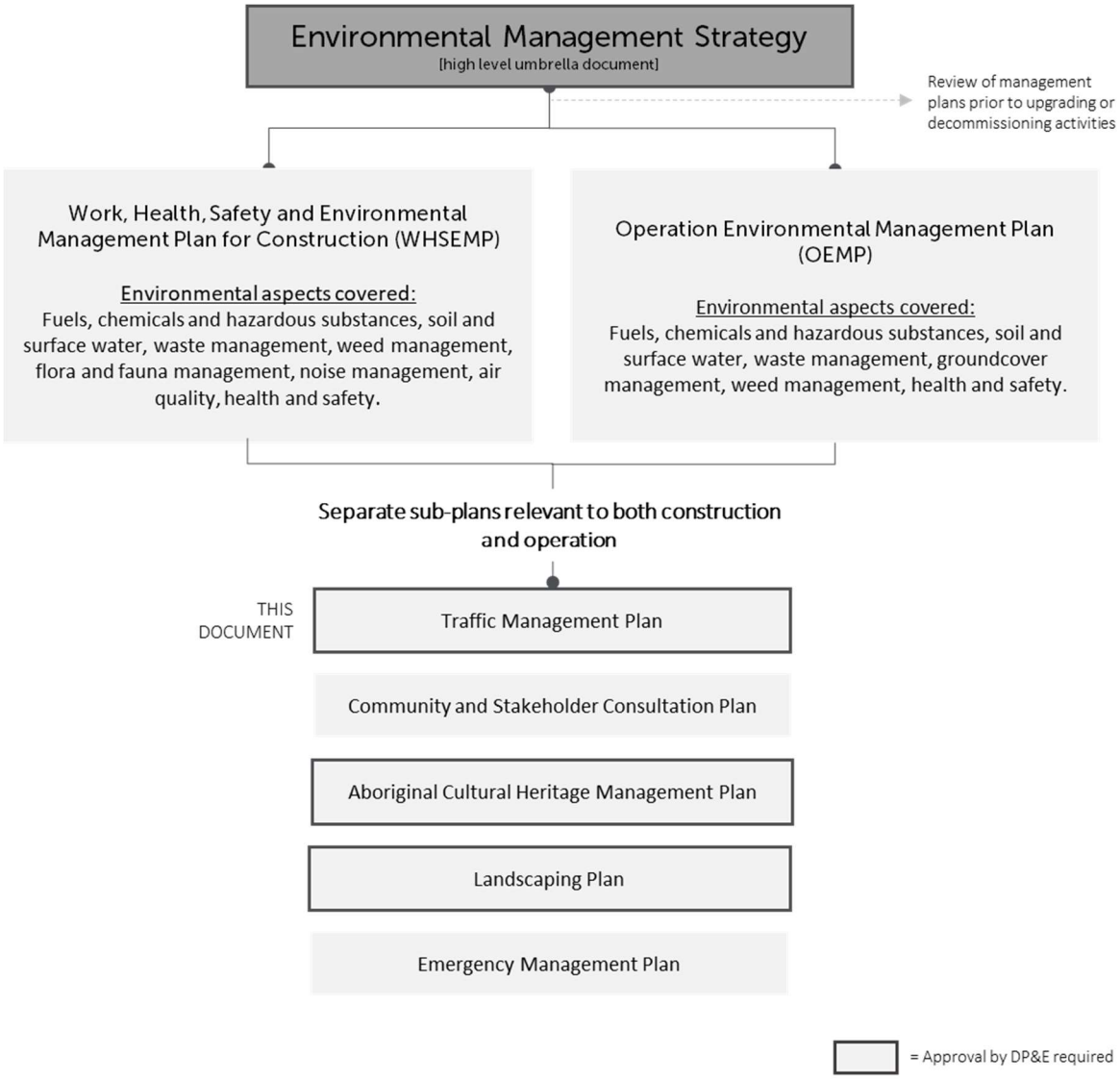

Figure 1 Framework for the suite of management plans for the Project

3. STAKEHOLDER CONSULTATION

As per CoC 5, Schedule 3, this TMP must be developed in consultation with Roads and Maritime Services (RMS) and Council (Wagga Wagga City Council). The TMP must also be developed to the satisfaction of the Secretary. A summary of the consultation undertaken is provided in Table 3 and provided in Appendix B.

Table 3 Summary of stakeholder consultation

Stakeholder	Consultation undertaken
Wagga Wagga City Council	• Request for Council endorsement of the proposed increase in heavy vehicle movements during construction submitted to Council on 12 November 2018. Endorsement received on 21 November 2018. • The draft TMP V1 was issued to Council on 15 March 2019. The Council responded on 28 March 2019 stating that they support the TMP and have no further comments. A copy of the correspondence with Council is provided in Appendix B. • Request for Council endorsement of a proposed alternative heavy vehicle route from Bomen rail sidings on Jersey Street. Endorsement received on 26 June 2019.
Roads and Maritime Services	• Request for RMS endorsement of the proposed increase in heavy vehicle movements during construction submitted to RMS on 6 December 2018. Endorsement received on 13 December 2018. The draft TMP V1 was issued to RMS on 15 March 2019. RMS responded on 29 March 2019 with comments. These comments were addressed in V2 of the TMP which was provided to RMS on 29 April 2019. On 3 May 2019 RMS acknowledged the amendments made and endorsed the TMP V2. A copy of the correspondence with RMS is provided in Appendix B.
Department of Planning and Environment	• Request for Secretary approval to increase heavy vehicle movements during construction submitted to DP&E on 21 December 2018. Approval from the Secretary received 15 January 2019. • The draft TMP V2 was issued to DP&E on 29 April 2019. DPE provided comments on the draft TMP V2 on 21 May 2019. These comments were address in V3 of the TMP.

4. 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 index of signs
- AS 1742.3 2009, Manual of uniform traffic control devices, Traffic control for works in roads

- RMS Traffic Control at worksite manual (2018)
- Austroads Guide to Road Design (2015)
- Road Transport (Vehicle Registration) Regulation 2017
- National Heavy Vehicle Mass and Dimension Limits, NVHR July 2016
- Australian Code for the Transport of Dangerous Goods by Road and Rail, edition 7.6 (2018).

5. CONSTRUCTION OF THE PROJECT

5.1. Overview

The primary components of the Project include:

- about 400,000 photovoltaic solar modules
- about 4,500 trackers comprising single-axis tracking framing systems mounted on steel piles
- up to 44 power conversion stations containing electrical switchgear, inverters and medium voltage transformers
- new on-site electrical switchyard and substation
- connection into the National Electricity Market via about 3.5 kilometres of 132 kV transmission line between the proposed on-site substation and the existing TransGrid Wagga North Substation. The transmission line may be overhead or underground, or a combination of both, subject to detailed design.
- battery storage system (to be constructed in the future)
- control building including office, supervisory control and data acquisition (SCADA) systems, operation and maintenance facilities, spare parts and staff amenities serviced by septic systems and rainwater tanks
- car park
- internal DC and AC cabling for electrical reticulation
- internal all-weather access tracks
- internal fire trail and bushfire asset protection zones
- security fencing around the solar farm
- perimeter and internal landscaping
- meteorological stations.

The approved layout is shown in Figure 2

Figure 2 Approved layout (as per Appendix 1 of the Development Consent).

5.2. Key construction activities

The key construction activities include:

- Site establishment, including:
    - geotechnical investigations
    - constructing internal access roads
    - installing perimeter fencing
    - removing existing internal fence lines (if required)
    - establishing construction compound and laydown areas
    - installing environmental controls
- installing the steel post foundation system for the trackers (driven piling)
- installing the trackers on the steel posts
- installing the solar modules on the trackers
- installing the power conversion stations
- constructing the onsite substation and switchyard
- constructing the transmission line between the onsite substation and the TransGrid Wagga Wagga North substation
- constructing the control building
- installing the battery storage system (future activity)
- installing underground cabling and connecting communications equipment
- installing ancillary facilities and infrastructure
- landscaping works
- removing temporary construction facilities and rehabilitation of disturbed areas.

Construction materials will be transported to the site via road and predominantly by heavy vehicles.

5.3. Construction schedule

The construction period is expected to take approximately 12 months. The broad timing of key activities is outlined in Section 9.1, Table 4.

5.4. Construction hours

As per CoC 10, Schedule 3, construction activities on site must only be undertaken during the following hours, unless approval has otherwise been obtained from the Secretary:

- Monday to Friday: 7 am to 6 pm
- Saturday: 8 am to 1 pm
- Sundays and public holidays: no work.

The following construction activities may be undertaken outside these hours without the approval of the Secretary:

- 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.

6. PERMITS REQUIRED

6.1. Permits under the Roads Act 1993

Under Section 138 of the *Roads Act 1993*, a person must not impact or carry out work on or over a public road otherwise than with the consent of the appropriate roads authority.

The Project involves the following works within a public road:

- Installation of underground electrical cables across Trahairs Road (Council road).
- Installation of underground transmission line across East Bomen Road (Council road).
- Establishment of site entrances on Trahairs Road.
- Any maintenance work required on Trahairs Road following dilapidation surveys (refer Section 11).

A permit is required from Council for each of the above activities under Section 138 of the *Roads Act 1993.*

6.2. Over-dimensional Vehicle Permits under Heavy Vehicle National Law

The National Heavy Vehicle Regulator (NHVR) administers one set of laws (the Heavy Vehicle National Law (HVNL)) for heavy vehicles over 4.5 tonnes gross vehicle mass. The HVNL consists of the Heavy Vehicle National Law (the schedule to the *Heavy Vehicle National Law Act 2012*) and four sets of regulations. The HVNL commenced on 10 February 2014 in the Australian Capital Territory, New South Wales, Queensland, South Australia, Tasmania and Victoria. Each of them passed a law that either adopts or duplicates the HVNL (with some modifications) as a law of that State or Territory.

The Project requires that any over-dimensional vehicles used for the Project obtain an Oversize Overmass Permit (OSOM) from the NHVR.

Note: For Class 1 and 3 (including Special Purpose Vehicles and Oversize Overmass) permits in NSW, approval can be sought through Roads and Maritime Services and individual councils as an alternative to the NHVR.

7. SITE ACCESS

7.1. Site access and entrances

Site access is illustrated in Figure 3 ~~(site entrances) and Figure 4 (heavy vehicle route)~~through to Figure 5. Refer to Section 7.3 for a description of the heavy vehicle transport routes.

All site access is from Trahairs Road (local road), east of its intersection with Byrnes Road (local road). Trahairs road runs in an east-west direction dividing the site into a Northern Development Area and a Southern Development Area.

Up to four site entrances will be established on Trahairs Road for use during construction and/or operation, with up to two accessing the Northern Development Area, and up to two accessing the Southern Development Area.

East of its intersection with Byrnes Road, Trahairs Road has very low existing traffic volumes, mostly limited to traffic associated with the Riverina Oils and BioEnergy (ROBE) facility near the intersection with Byrnes Road. There is no through-traffic on Trahairs Road as the constructed road terminates adjacent to the eastern boundary of the Project site.

All vehicles must be loaded and unloaded within the site, and enter and leave the site in a forward direction. Provision will be made within the site to accommodate turn around movements without the need for reversing.

7.2. Deliveries to the site

The real-time management of deliveries is to be managed to reduce the potential for queuing of heavy vehicles, both outside the site entrance and within the site, through the implementation of scheduling (e.g. staging of deliveries) and communication protocols.

Heavy delivery vehicles from ports are to start transportation as soon as container loads are safely secured, resulting in single vehicle movements rather than convoy/platoon traffic to avoid conflicts with other motorists and congestion upon arrival at the site.

The laydown and delivery area will include adequate provision for standing of multiple heavy vehicles, to allow multiple deliveries to occur simultaneously without causing queuing. The laydown and delivery area will also be designed to allow for heavy vehicles to safely unload away from pedestrian areas, and without the need for reversing.

All vehicles must be loaded and unloaded within the site, and enter and leave the site in a forward direction. Provision will be made within the site to accommodate turn around movements without the need for reversing.

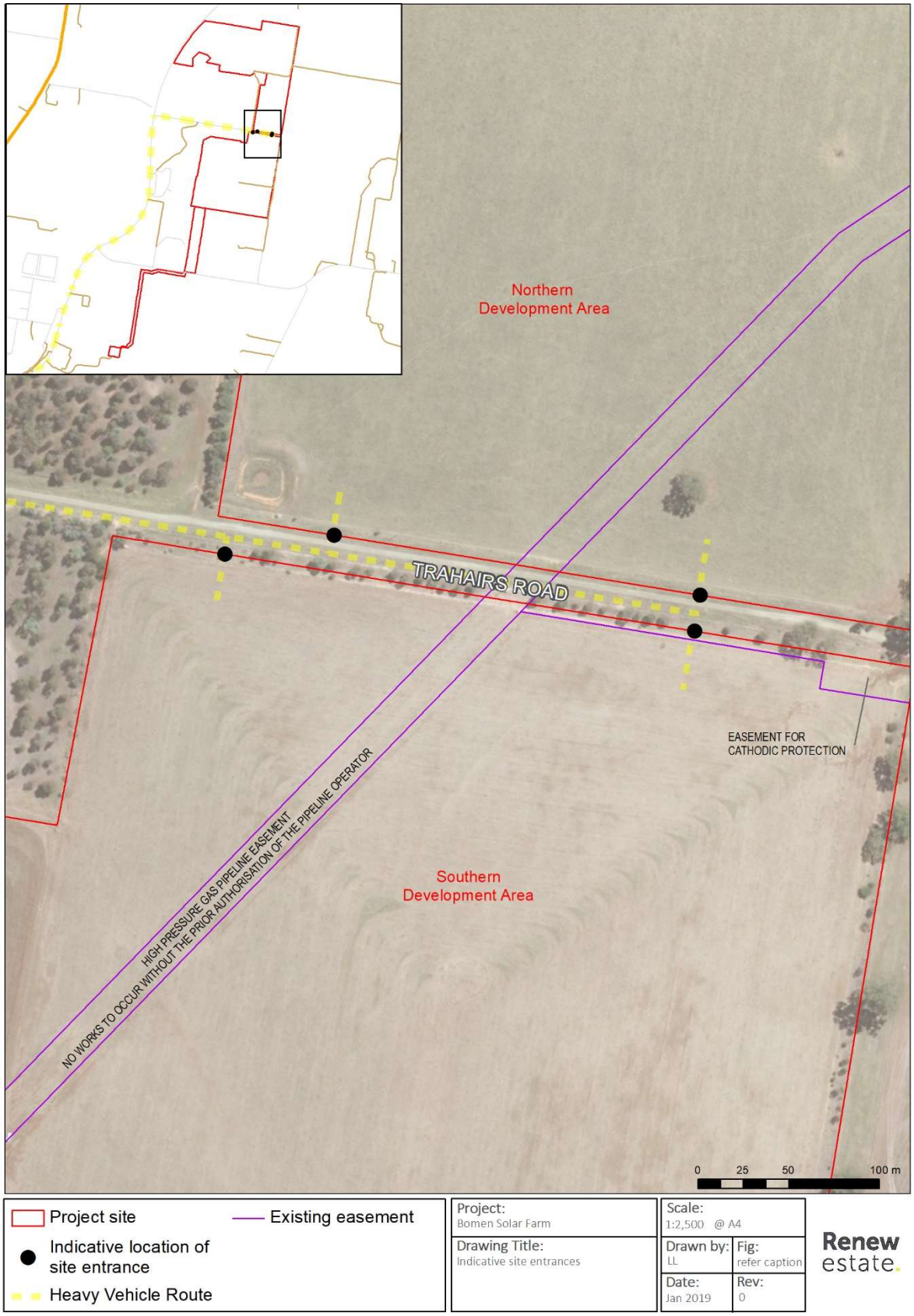

Figure 3 Indicative locations of site entrances (as approved under the Development Consent)

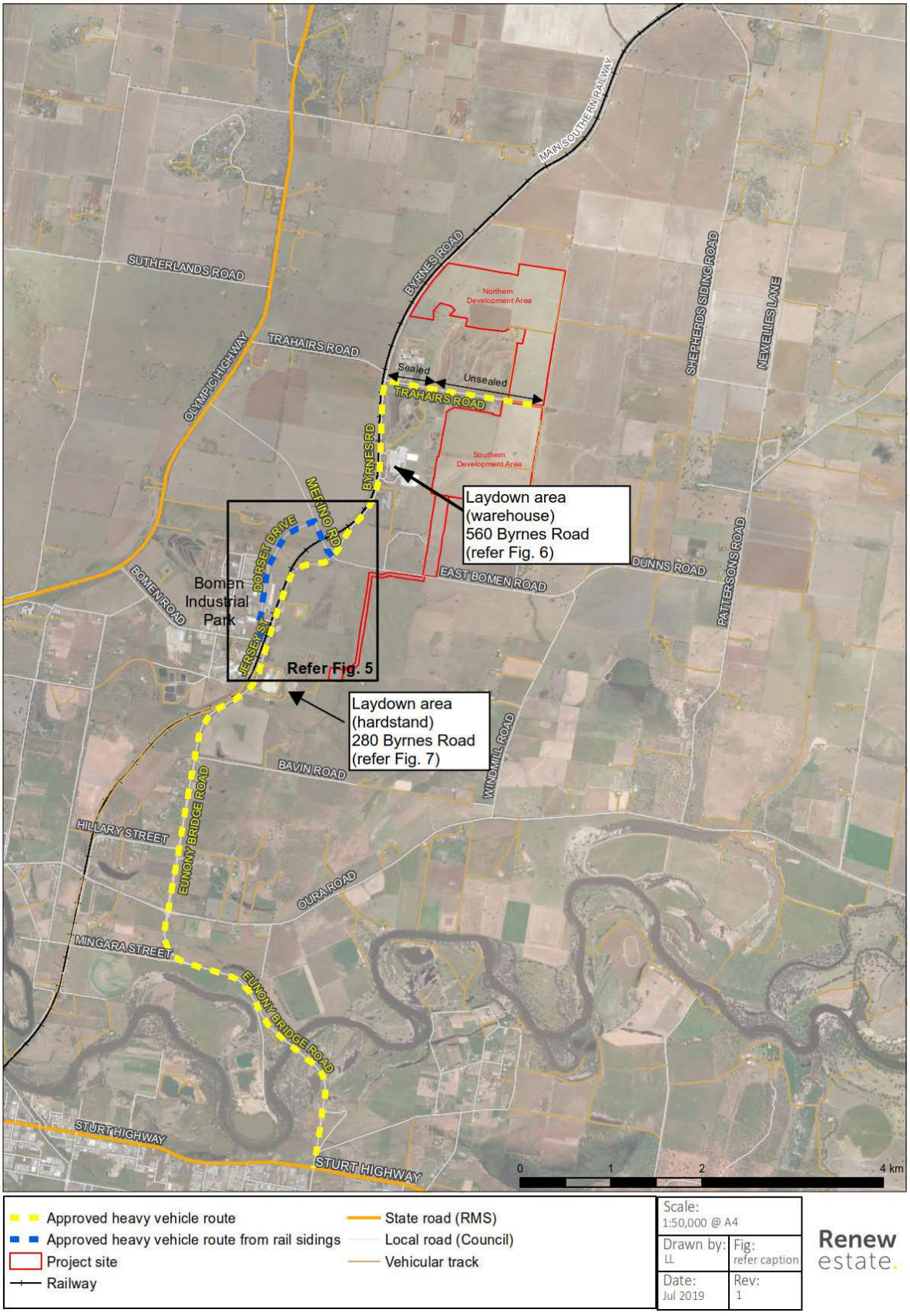

Figure 4 Heavy vehicle routes (as approved under the Development Consent)

Figure 5 Heavy vehicle route from rail sidings

7.3. Heavy vehicle transport route

CoC 3, Schedule 3 states that "*All over-dimensional and heavy vehicles associated with the development must travel to and from the site via the Sturt Highway, Byrnes Road, Eunony Bridge Road and Trahairs Road and the approved site access points (shown in Appendix 1) OR via Jersey Street, Dorset Drive, Merino Road, Byrnes Road, Eunony Bridge Road, Trahairs Road and the approved site access points (shown in Appendix 1)* [of the Development Consent]". These~~is~~ heavy vehicle routes avoid~~s~~ the need to travel through the Wagga Wagga central business district.

The heavy vehicle routes and indicative site entrance locations are shown in Figure 3, ~~and~~ Figure 4 and Figure 5. Site access and entrances is also discussed in Section 7.3.

~~The majority~~Many ~~-~~of the heavy vehicle movements during construction will be generated by the transport of ~~solar modules and tracking system components~~materials from Port Kembla, NSW or Port of Melbourne, Victoria. The approved heavy vehicle route via Sturt Highway is appropriate regardless of which port they travel from. Other construction materials are likely to be sourced locally in the

Riverina region, and will also be transported to site from Sturt Highway via the approved heavy vehicle route.

Materials transported to Bomen by rail would be delivered to existing rail sidings and associated freight depot located on Jersey Street, in the Bomen Industrial Park southwest of the Project site (Figure 4 and Figure 5). When the freight arrives to the sidings in shipping containers, the containers would be offloaded from the train and stacked at the depot. Over the days following a rail delivery, the shipping containers would be picked up at the Jersey Street depot by side-loader trucks and transported by road to either the warehouse laydown area at 560 Byrnes Road (Figure 6) or the hardstand laydown area at 260 Byrnes Road (Figure 7), depending on whether the materials need to be undercover or not .

Once the shipping containers arrive at the laydown area, the materials would be unpacked from the containers and stored until they are required at the Project site. When they are required at the site, the materials would be transported by standard flatbed or curtain sided trailers to the site via Byrnes Road, Trahairs Road, and the approved site access points on Trahairs Road.

~~Other construction materials are likely to be sourced locally in the Riverina region, and will also be transported to site via the approved heavy vehicle route.~~

Figure 6 Location of the warehouse laydown area at 560 Byrnes Road.

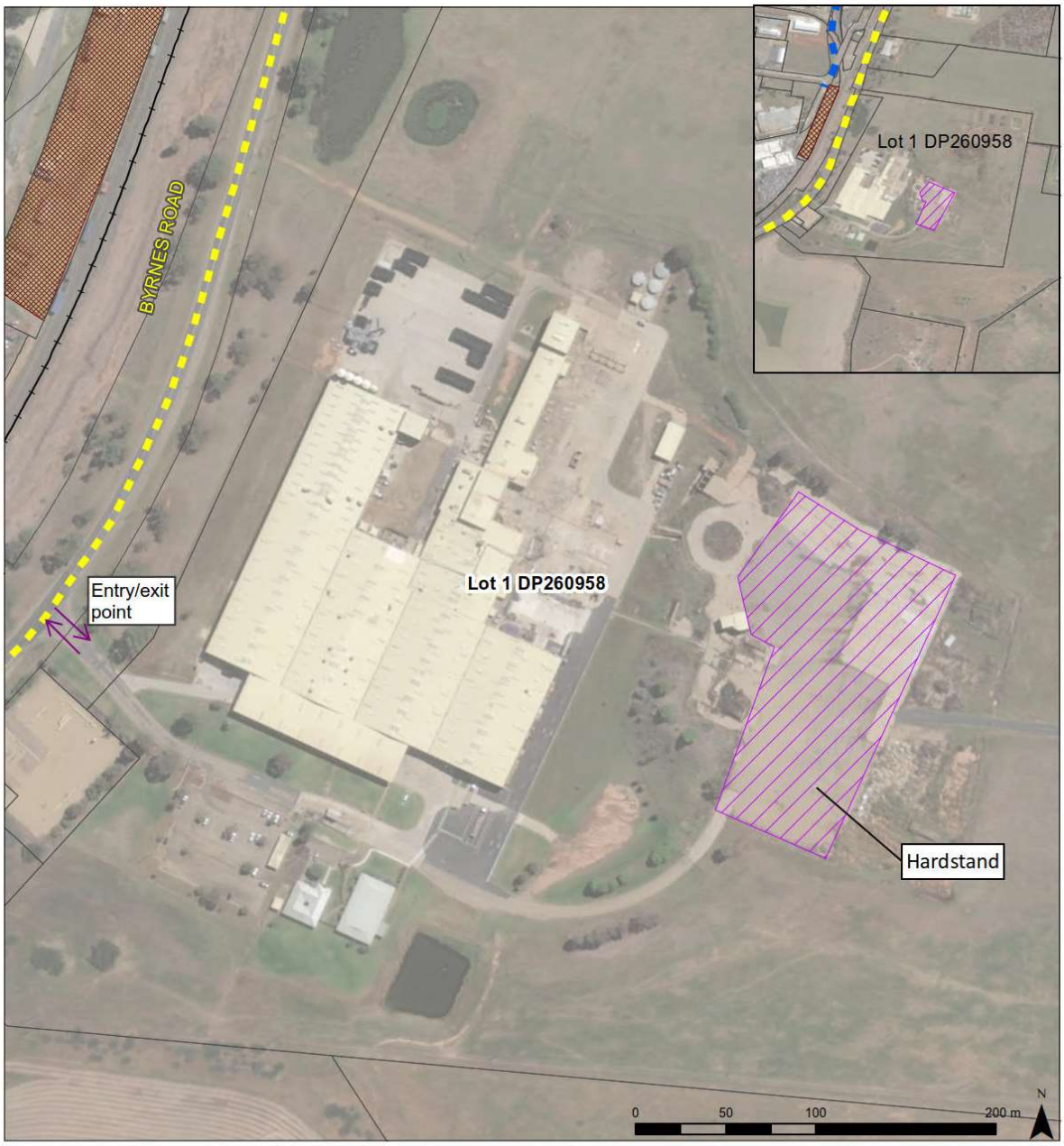

Figure 7 Location of the hardstand laydown area at 280 Byrnes Road

7.4. Light vehicle transport route

It is anticipated that the majority of the construction workforce would reside in Wagga Wagga and would therefore travel to the site from the south along Byrnes Road, making a right turn onto Trahairs Road, the same as heavy vehicles (Figure 4). Indicative site entrance locations are shown in Figure 3 and Figure 4. Site access and entrances is also discussed in Section 7.3.

There are no restrictions in the Development Consent regarding the route light vehicles travel on to arrive at the Trahairs Road site entrances. Any personnel that need to fly in to site, will also travel by road from Wagga Wagga, from the Wagga Wagga Airport.

7.5. Road upgrades

Condition 4, Schedule 3 relates to road upgrades and is as follows:

> *Prior to the commencement of construction, the Applicant must undertake road upgrade works on sections of Trahairs Road, as specified in the EIS (shown in Appendix 1) to the satisfaction of Council.*

The referenced road works as specified in the EIS is minor grading work along the unsealed section of Trahairs Road to a width of four meters, which was recommended in the Traffic Impact Assessment for making the road access to the Project site suitable for use during construction.

However, in the months after the Development Consent was granted, Council undertook a similar scope of upgrade works along Trahairs Road independently of the Project. The unsealed section of Trahairs Road was resurfaced (remaining unsealed) with drainage established, and its width increased to 6 metres. Council have confirmed that these upgrade works satisfy Condition 4, Schedule 3 of the Project Development Consent.

The only further works required on Trahairs Road for the Project are the establishment of the four site entrances, which will require minor surface works from Trahairs Road to the gate locations indicated in Figure 3. An approval under Section 138 of the *Roads Act 1993* must be obtained for these works. The capacity of the existing road drainage system will be maintained.

8. INTERNAL ACCESS TRACKS, LAYDOWN AREAS AND PARKING DURING CONSTRUCTION

8.1. Internal access roads

Internal access roads for use by construction vehicles will be established during construction and be constructed for all-weather access.

The layout of the internal access roads will be determined during the detailed design phase. Where possible, the internal access roads for construction use will be established where operational roads are planned, to allow them to be retained for the operational phase.

Further requirements relating to internal access road are detailed in Table 5 – Traffic Controls.

In addition to the internal all-weather access roads will be a 10 metre wide defendable space around the perimeter of the whole of the solar arrays that permits a minimum four metre wide unobstructed vehicle access for fire-fighting vehicles.

8.2. Construction compound

A temporary construction compound will be established on-site and will include a site office and amenities buildings. The location of the compound will be determined during the detailed design phase, however it will be within the site and avoid all site constraints.

Staff amenities will include the following:

- toilet blocks consisting of water flush systems connected to holding tanks. Tanks are to be equipped with high level alarms and pumped out regularly
- change rooms
- dining room
- offices
- undercover storage area.

Construction compound buildings will be prefabricated structures which can be brought to site on the back of a truck and removed from site when required.

8.3. Laydown areas

Temporary hardstand areas will be established for the laydown and storage of construction materials.

The location of laydown areas will be determined during detailed design, but will be all located within the Project site and avoid all site constraints.

8.4. Parking

All vehicles during construction would park within the site in designated areas which would be determined during detailed design, though at minimum would include locations adjacent to the construction compound. Sufficient parking will be provided for all vehicles, including minibuses, onsite vehicles and workers not utilising shuttle buses. No parking permitted on the public road network in the vicinity of the site.

Vehicles are to be reverse-parked at all times within car parking areas to minimise potential for interaction with people, infrastructure and other plant when moving off.

9. CONSTRUCTION TRAFFIC GENERATION

Traffic generated by construction comprises three categories of vehicles:

- Light vehicles generated by construction staff travelling to/from the site (ie. utes, vans and private cars).
- Heavy vehicles which are used for the delivery of the solar farm components, other construction materials such as aggregate, and plant and equipment.
- Over-dimensional vehicles used for the delivery of the large substation components.

9.1. Forecasted vehicle movements

Table 4 provides the forecasted average daily vehicle movements during construction, along with associated timing construction stage/activity. One movement equates to one vehicle entering and leaving the site (i.e. two-way). The forecasted movements are also illustrated in Figure 8.

The construction period will include a peak heavy vehicle period and a peak light vehicle period. As evident in Figure 8, these periods will not occur simultaneously as the peak in heavy vehicles is earlier in the construction phase, resulting from a peak in materials delivery, whereas the peak in light vehicles occurs in the later part of construction when numbers of workers are greatest during assembly and electrical works.

Table 4 Forecasted average daily vehicle movements and their timing

Month	Pre-mobilisation	Mobilisation	Earthworks	Piling	Trenching	Tracker Assembly	Module installation	Electrical	Commissioning	Average Daily Light Vehicles	Average Daily Heavy Vehicles
1	X									20	15
2		X	X							30	60
3			X							40	60
4			X	X						60	60
5			X	X	X					80	60
6				X	X	X				150	50
7				X	X	X	X			170	40
8					X	X	X	X		150	35
9							X	X		120	25
10								X		100	20
11									X	50	10
12									X	30	5

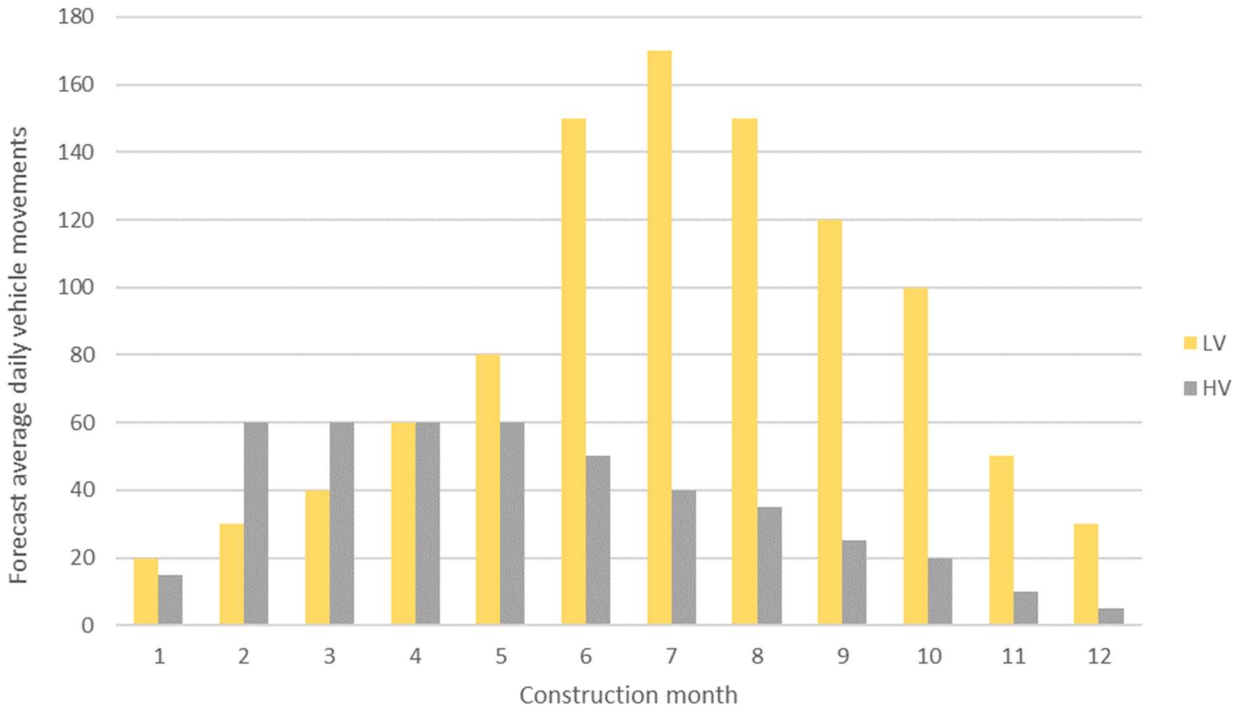

Figure 8 Forecasted average daily vehicle movements over the construction period.

Shuttle Buses

The forecasted average daily movements for light vehicles in Table 4 and Figure 8, is conservative as it does not account for the likely use of shuttle buses. The Project is committed to minimising the risk of congestion during peak worker arrival times. As such it will investigate the options to minimise the risk of congestion once the workforce plan has been prepared and workers have been employed. Once it is known where the workers are coming from, the Project will consider providing transport in the form of shuttle busses. It is anticipated that the majority of workers will come from Wagga Wagga, and therefore it is likely that shuttle busses will be provided to a number of different central locations around Wagga Wagga.

9.2. Maximum permitted heavy vehicle traffic movements

The maximum permitted heavy vehicle movements per day during construction is 60 with a movement defined as one vehicle entering and leaving the site (i.e. two-way). This number was agreed to by the Secretary, following a request to increase the limit to 60 movements from the original limit of 30 movements prescribed within CoC 1, Schedule 3 (copied below):

The Applicant must ensure that the:

(a) development does not generate more than:

- *30 heavy vehicle movements a day during construction, upgrading or decommissioning;*
- *1 over-dimensional vehicle movement during construction, upgrading and decommissioning; and*
- *6 heavy vehicle movements a day during operations;*

on the public road network;

(b) length of any vehicles (excluding over-dimensional vehicles) used for the development does not exceed 26 metres,

unless the Secretary agrees otherwise.

The request to increase the limit to 60 heavy vehicle movements per day during construction was accompanied by a supplementary traffic impact assessment, which concluded that the increase would not materially impact the operation of the surrounding road network. Further, RMS and the Council did not raise any objection to the increase. The Council supported the increase subject to the Project undertaking pre- and post-construction road dilapidation surveys on Trahairs Road and reinstating the road to its current condition (refer to Section 11).

The maximum permitted number heavy vehicle movements per day during upgrading or decommissioning remains as 30, as the approved increase only applies to construction.

The maximum permitted heavy vehicle movements per day during operation is 6.

9.3. Maximum permitted heavy vehicle size

All contractors will be responsible for complying with the Heavy Vehicle National Law (HVNL).

Depending on the logistic subcontractor company, the approximate heavy vehicle length will be between 16-26 m. Compliance with CoC 1, Schedule 3 requires that the "*length of any vehicles (excluding over-dimensional vehicles) used for the development does not exceed 26 metres in length, unless the Secretary agrees otherwise."*

One over-dimensional vehicle movement will be required for the delivery of the substation transformer. This is allowed for in the CoC 1, Schedule 3 which permits no more than "*1 over-dimensional vehicle movement during construction, upgrading and decommissioning".*

If the need for additional over-dimensional vehicle movements is identified, approval must be sought from the Secretary.

10. OPERATIONAL TRAFFIC GENERATION

Traffic generated by construction comprises two categories of vehicles:

- Light vehicles generated by operational staff travelling to/from the site (i.e. utes and private cars).
- Heavy vehicles which are used for the delivery of maintenance equipment and materials.

10.1. Forecasted vehicle movements

Upon completion of the construction phase, the solar farm is expected to generate up to 10 light vehicle peak hour movements per day, generated by operational staff during the defect liability period (first two years), and up to five thereafter.

Heavy vehicle movements during operation are anticipated to be infrequent and mostly on an as-needs basis.

10.2. Maximum permitted heavy vehicle traffic movements

The maximum permitted heavy vehicle movements per day during operation is 6 as prescribed within CoC 1, Schedule 3.

11. DILAPIDATION SURVEY PROTOCOL

Prior to commencement of construction, and prior to establishing the site entrances, an independent dilapidation survey ('pre-construction dilapidation survey') will be commissioned to document the existing condition of the section of Trahairs Road east of its intersection with Byrnes Road, including the sealed section (refer Figure 9). Within two months following completion of construction, another independent dilapidation survey will be commissioned to document the condition the same section of Trahairs Road ('post-construction dilapidation survey').

The post-construction dilapidation survey will identify any deterioration to the condition of Trahairs Road occurring since the pre-construction survey, and whether the deterioration is likely to have been caused by the Project's construction activities.

Any deterioration attributable to the Project will be reinstated to pre-construction condition by the Project within three months of the post-construction dilapidation survey.

The above protocol for undertaking dilapidation surveys will also be implemented for upgrading or decommissioning works.

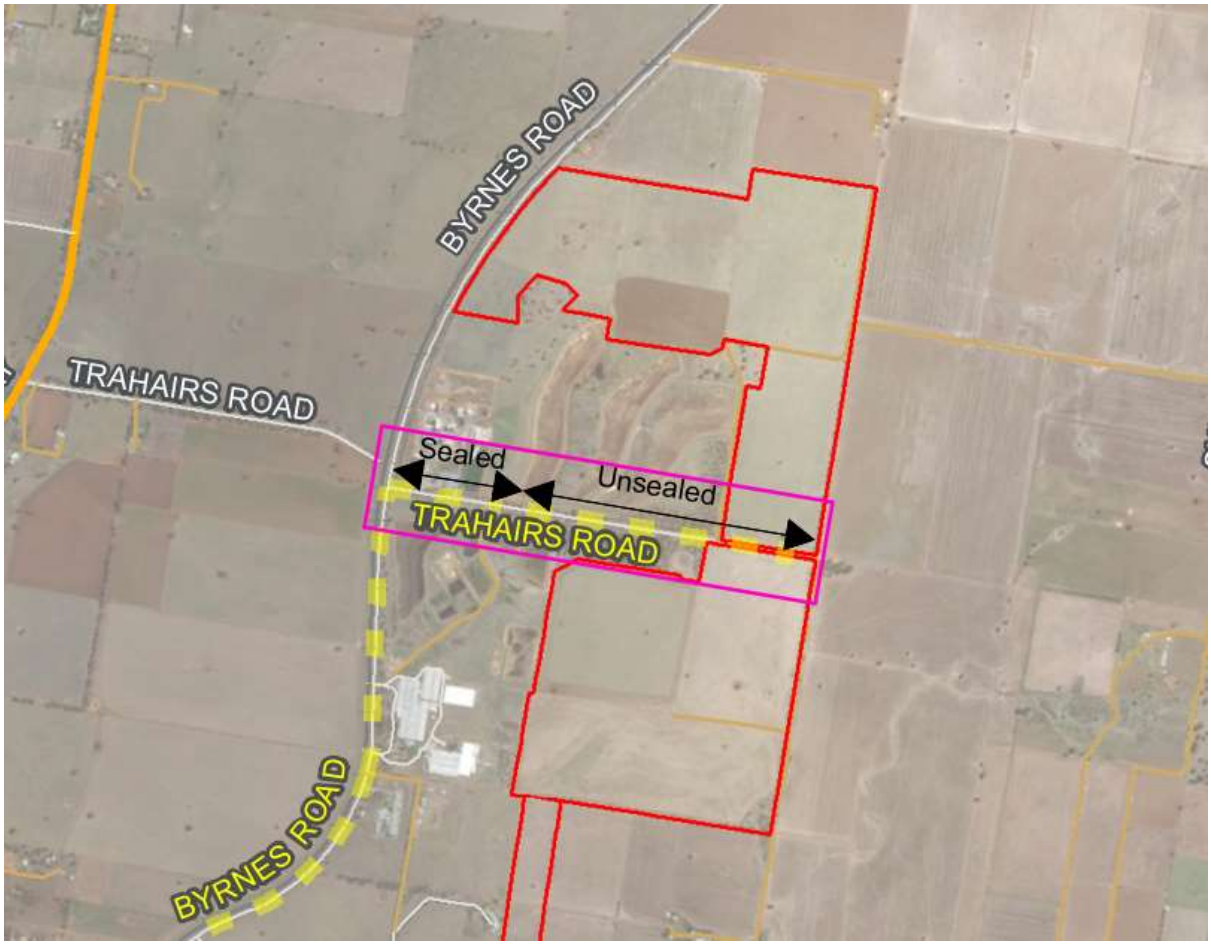

Figure 9 Section of Trahairs Road subject to dilapidation surveys (east-west extent indicated by pink outline)

12. COMMUNITY NOTIFICATION

As per the project Community and Stakeholder Consultation Plan (CSCP), residents and businesses in proximity to the site will be notified at least 1 week prior to the following:

- new construction stage commencing

- construction in new area commencing
- activities which would have an increased impact on amenity
- change in traffic conditions
- out of hours work (if approved by the Secretary)
- activities which would impact utilities.

Notification of construction commencing, and ongoing project progress updates will also be provided to the community and stakeholders in accordance with the CSCP.

Consultation tools to be used for disseminating the notifications are outlined in the CSCP.

13. TRAFFIC CONTROLS

Table 5 provides the traffic controls to be implemented during construction, operation and decommissioning/upgrading phases of the Project along with their timing and the person responsible for each control.

Table 5 Traffic controls to be implemented

Control Ref #	Environmental Control	Implementation		Inspection and monitoring	
		Timing	Responsibility	Measurement criteria	Frequency
	General				
T1	Traffic Control Plans (TCPs) will be prepared by a suitably qualified person, with input from the relevant subcontractors, which detail the layout and nature of temporary traffic control devices necessary to ensure the safe movement within a particular area on the public road network. TCPs may include the following (note this list is not exhaustive): • temporary traffic safety controls such as signage to notify road users, speed limits, detours, UHF frequencies and other; • 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 any school bus routes and bus stops in the vicinity of the site; and • Consideration of any of developments in the area that may have cumulative impacts with the Project. TCPs will be consistent with the measures contained in this 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).	• Construction • Upgrading/ decommissioning	Site Manager and HSE Advisor	Record of Traffic Control Plans, record of incidents, observations.	Weekly
T2	Existing access to private properties is to be maintained unless otherwise agreed with the property owner in advance.	• Construction • Upgrading/ decommissioning • Operation	Site Manager	Record of complaints, observations.	During access works
T3	All construction vehicle drivers must comply with the Driver Code of Conduct (Appendix A).	• Construction • Upgrading/ decommissioning	Site Manager	Record of incidents and complaints, observations.	Weekly
T4	All project vehicle drivers must be competent, licensed drivers.	• Construction • Upgrading/ decommissioning • Operation	HSEQ	Record of incidents, observations.	Weekly

Control Ref #	Environmental Control	Implementation		Inspection and monitoring	
		Timing	Responsibility	Measurement criteria	Frequency
T5	All vehicles regularly used for the Project will be serviced regularly and maintained in good working order.	• Construction • Upgrading/ decommissioning • Operation	HSEQ and office manager	Records of services logged in vehicle maintenance registers.	Monthly
T6	Construction equipment, machinery and vehicles are to be appropriately sized for the task.	• Construction • Upgrading/ decommissioning	Site Manager	Observations.	Weekly
T7	Energy efficiency and related carbon emissions are to be considered in the selection of vehicles and machinery.	• Construction • Upgrading/ decommissioning	HSEQ and site manager	Procurement records.	Monthly
T8	Local suppliers will be used to limit transport where practicable.	• Construction • Upgrading/ decommissioning	HSEQ	Procurement records.	Monthly
T9	An independent dilapidation survey will be commissioned to document the condition of Trahairs Road before and after construction, upgrading or decommissioning activities, in accordance with the protocol described in Section 11 of this TMP. Any deterioration attributable to the Project will be reinstated to its pre-existing condition by the Project in accordance with Section 11 of this TMP.	• Pre- and post-construction • Pre- and post upgrading/ decommissioning	HSEQ and site manager	Records of dilapidation reports and repair work undertaken.	Pre and post construction, upgrading and decommissioning.
T10	If glint or glare from the solar panels is demonstrated to be a nuisance, distraction and/or hazard to the public road, glare mitigation measures shall be implemented.	• Operation	Construction Manager	Record of complaints.	As required
	Site access				
T11	Site entrances are to be established at the indicative locations identified in Figure 3. A permit under Section 138 of the *Roads Act 1993* must be obtained for the minor surface works required in the Trahairs Road corridor at the gate locations (refer section 7.1).	• Construction	Site Manager, HSEQ (permit)	Observations, Section 138 approval granted.	Prior to and following site entrance establishment
T12	The capacity of the existing road drainage system is to be maintained on Trahairs Road during the establishment of site entrances.	• Construction	Site Manager	Section 138 approval granted.	Prior to and following site entrance establishment

Control Ref #	Environmental Control	Implementation		Inspection and monitoring	
		Timing	Responsibility	Measurement criteria	Frequency
T13	All vehicles entering the site are to use only the site access points established on Trahairs Road.	• Construction • Upgrading/ decommissioning • Operation	Site Manager and Logistics Manager	Observations, record of incidents.	Weekly
T14	All vehicles are to be loaded and unloaded within the site, and enter and leave the site in a forward direction.	• Construction • Upgrading/ decommissioning	Site Manager and Logistics Manager	Observations, record of incidents.	Weekly
T15	Turning around on Trahairs road is not to be permitted.	• Construction • Upgrading/ decommissioning	Site Manager	Observations, record of incidents.	Weekly
T16	Provision will be made within the site to accommodate turn around movements without the need for reversing.	• Construction • Upgrading/ decommissioning	Site Manager	Observations, record of incidents.	Weekly
T17	Appropriate exclusion barriers, signage and site supervision are to be employed at all times to ensure that the works area is controlled and that unauthorised vehicles and pedestrians are excluded from the site.	• Construction • Upgrading/ decommissioning • Operation	Site Manager	Observations, record of incidents.	Weekly
	Internal site controls				
T18	Internal access roads are to be constructed as all-weather roadways.	• Construction	Site Manager	Design documentation	At completion of design
T19	Delivery vehicles are to remain on the internal access roads except for instances when this is not practicable.	• Construction	Site Manager	Observations, record of incidents.	Weekly
T20	Designated pedestrian areas/paths/access points are to be provided where appropriate, to ensure safe pedestrian movement.	• Construction	Site Manager	Observations, record of incidents.	Weekly
T21	In addition to the internal all-weather access roads, a 10 metre wide defendable space is to be established around the perimeter of the whole of the solar arrays that permits a minimum four metre wide unobstructed vehicle access for fire-fighting vehicles.	As per Fire and Emergency Management Plan.			

Control Ref #	Environmental Control	Implementation		Inspection and monitoring	
		Timing	Responsibility	Measurement criteria	Frequency
T22	Sufficient designated parking is to be provided on site for all vehicles, and no parking or storing of materials is to occur on the public road network in the vicinity of the site..	• Construction	Site Manager	Observations	Weekly
T23	All construction vehicles leaving the site are to be in a clean condition to minimise dirt being tracked onto the sealed public road network.	• Construction • Upgrading/ decommissioning	Site Manager	Observations	Weekly
T24	Any vehicle wash downs and/or concrete truck washouts onsite are to be within a designated bunded area on an impervious surface.	• Construction • Upgrading/ decommissioning	Site Manager	Observations	Monthly
T25	All vehicles are to be covered when transporting loose materials to and from the site.	• Construction • Upgrading/ decommissioning	Site Manager	Observations	Weekly
	Heavy vehicles				
T26	The number of heavy vehicle movements per day during construction must not exceed 60, unless otherwise agreed by the Secretary.	• Construction	Site Manager and Logistics Manager	Record of the number of heavy vehicles entering and leaving the site each day.	Weekly
T27	The number of heavy vehicle movements per day during operation must not exceed 6, unless otherwise agreed by the Secretary.	• Operation	Site Manager and Logistics Manager	Record of the number of heavy vehicles entering and leaving the site each day.	Weekly
T28	The length of any vehicles (excluding over-dimensional vehicles) used for the Project must not exceed 26 metres, unless otherwise agreed by the Secretary.	• Construction Operation	Site Manager and Logistics Manager	Record of the number of heavy vehicles entering and leaving the site each day.	Weekly
T29	The number of over-dimensional vehicle movements during construction must not exceed 1, unless otherwise agreed by the Secretary.	• Construction	Site Manager and Logistics Manager	Record of the number of over-dimensional vehicles entering and leaving the site each day.	Weekly

Control Ref #	Environmental Control	Implementation		Inspection and monitoring	
		Timing	Responsibility	Measurement criteria	Frequency
T30	Over-dimensional vehicles used during construction must obtain an Oversize Overmass Permit (OSOM) from the NHVR (refer Section 6.2).	• Construction	Site Manager and Logistics Manager, delivery partner	OSOM permit	Weekly
T31	The number of over-dimensional and heavy vehicles entering and leaving the site each day is to be recorded.	• Construction Operation	Site Manager and Logistics Manager	Record of the number of heavy and over-dimensional vehicles entering and leaving the site each day.	Weekly
T32	All over-dimensional and heavy vehicles associated with the Project must travel to and from the site via the Sturt Highway, Byrnes Road, Eunony Bridge Road and Trahairs Road OR via Jersey Street, Dorset Drive, Merino Road, Byrnes Road, Eunony Bridge Road, Trahairs Road and the approved site access points (see Figure 3, Figure 4 Figure 5 ~~and Figure 4~~).	• Construction Operation	Site Manager and Logistics Manager	Observations, record of complaints and incidents	Weekly
T33	The real-time management of deliveries is to be managed to reduce the potential for queuing of trucks both outside the site entrance and within the site, through the implementation of scheduling (e.g. staging of deliveries) and communication protocols.	• Construction	Site Manager and Logistics Manager	Observations, record of complaints	Weekly
T34	Heavy delivery vehicles from ports are to start transportation as soon as container loads are safely secured, resulting in single vehicle movements rather than convoy/platoon traffic to avoid conflicts with other motorists and congestion upon arrival to site.	• Construction	Site Manager and Logistics Manager, delivery partner	Observations, record of complaints and incidents	Weekly
T35	The laydown and delivery area will include adequate provision for standing of multiple heavy vehicles, to allow multiple deliveries to occur simultaneously without causing queuing. The laydown and delivery area will also be designed to allow for heavy vehicles to safely unload away from pedestrian areas, and without the need for reversing.	• Construction	Site Manager	Observations, record of complaints	Weekly
T36	Consider the use of shuttle buses to transport workers to and from the site to minimise light vehicle traffic and parking required.	• Construction	Site Manager	Evidence of analysis of workforce locations and shuttle bus feasibility.	Prior to peak construction period.

Control Ref #	Environmental Control	Implementation		Inspection and monitoring	
		Timing	Responsibility	Measurement criteria	Frequency
	Response to local climatic conditions				
T37	Specific control measures are to be implemented during local climatic events such as extreme wet weather events, fog and dust storms. Measures may include (but not be limited to): • 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. Drivers are to be notified where possible when specific control measures are in force, or when there are any changes to road conditions.	• Construction	Site Manager and Logistics Manager, delivery partner	Observations, record of incidents	Weekly
	Emergency repair and maintenance				
T38	Any damage to the road infrastructure on the heavy vehicle route (Figure 4) from the site to the intersection of Eunony Bridge Road and Sturt Highway which poses a potential safety risk to road users, is to be reported immediately to HSEQ who is to determine whether emergency repair is required.	• Construction	Site Manager and HSE Advisor	Observations, record of complaints and incidents	Weekly
T39	If necessary, construction vehicle movements are to be suspended for the duration of the emergency repairs or appropriate alternative haulage routes identified. Relevant road authorities will be consulted immediately regarding the use of alternative haulage routes.	• Construction	Site Manager and Logistics Manager, delivery partner and HSE Advisor	Observations, record of complaints and incidents	Weekly

14. IMPLEMENTATION

14.1. Roles and responsibilities

The Project Owner has ultimate responsibility and accountability to ensure that the Project is designed, built, operated, upgraded and decommissioned in accordance with the Development Consent. However, all actions to achieve compliance with the Development Consent will be undertaken by the EPC contractor during construction, and O&M contractor during operation.

Figure 10 outlines the structure of organisations and key roles involved in the construction and operation of the Project. Table 6 outlines the responsibilities of the key roles relevant to traffic management.

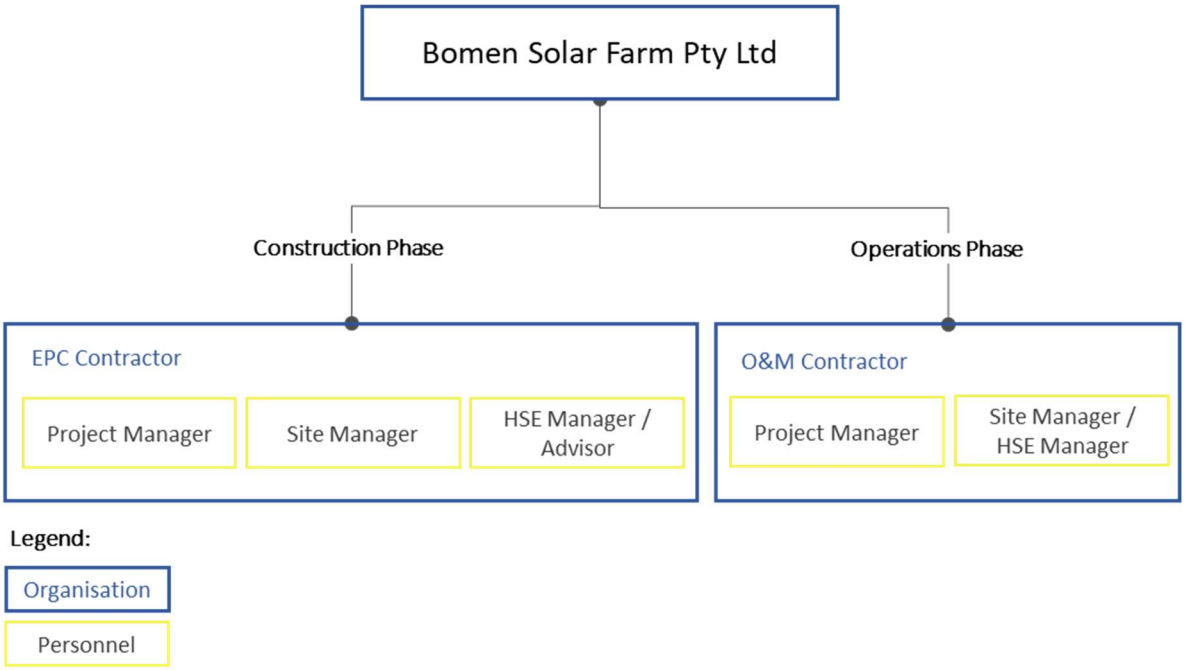

Figure 10 Structure of organisations and key roles

Table 6 Roles and responsibilities

Organisation	Role	Responsibilities and Authorities
EPC Contractor	EPC Construction Manager	• Maintain a working knowledge of this TMP and be aware of all legislative requirements • Provide sufficient resources for the implementation of this plan. • Coordinate complaints recording and investigation processes including associated reporting requirements.
	Site Manager	• Maintain a working knowledge of this TMP and be aware of all legislative requirements

Organisation	Role	Responsibilities and Authorities
	Health, Safety, Environment and Quality (HSEQ) Manager	• Implement and maintain the TMP. • Manage overall compliance with regulatory requirements and undertake external reporting for legislative non-compliances as required. • Coordinate the implementation of corrective actions and evaluate their effectiveness associated with community complaints; liaise with relevant government authorities and affected landholders in relation to regulatory conditions and compliance issues. • Coordinate training to communicate requirements of the TMP to relevant personnel.
	HSE Advisor	• Provide advise on health and safety matters as required by management.
	Logistics manager	• Subcontracted by the EPC Contractor for the management of logistics (i.e. transportation)
O&M Contractor	O&M Project Manager	• Maintain a working knowledge of this TMP and be aware of all legislative requirements • Provide sufficient resources for the implementation of this plan. • Coordinate complaints recording and investigation processes including associated reporting requirements.
	Site Manager/HSEQ Manager	• Facilitate activities so that they are completed in accordance with this TMP and associates management plans and site procedures. • Ensure traffic controls are operated and maintained in a proper and efficient manner. • Report all incidents.
Independent Environmental Auditor	Independent Environmental Auditor	In accordance with CoC 5 Schedule 4, undertake an independent environmental audit within 6 months of commencement of construction, or as directed by the Secretary.

14.2. Site Inspections

During construction the HSEQ will be responsible for carrying out weekly environmental inspections, post rainfall inspections and post incident inspections using standard forms. The HSEQ and sub-contractors will attend inspections in relevant areas as required. The HSEQ will attend a debriefing session following inspections.

At completion of an inspection, the HSEQ will prepare the following:

- A site inspection report
- Corrective actions required to address non-compliances
- Sub-contractor notices for major/ serious non-compliances
- Actions to address identified improvement opportunities.

All non-compliances must be promptly issued to the applicable parties, actioned, verified and closed out within an appropriate time frame based on the risk score associated with each non-compliance

(refer to Environmental Management Strategy for further details on non-compliances corrective action).

Other specialists may be engaged as required to enter site for the purposes of surveillance or inspection, to liaise with Bomen Solar Farm personnel, and to attend site meetings to discuss aspects of the work.

14.3. Complaints management

14.3.1. Complaints Management Protocol

This Complaints Management Protocol is also within the Environmental Management Strategy document.

The following avenues are available for community complaints:

Email: jucoburn@beon-es.com.au

Phone line: 0437 648 009

Postal address: 11 Tavistock Place, Melbourne VIC 3000

These details will also be provided on the project website. The telephone number, postal address and email address will also be displayed on a sign near the entrance to the site, in a position that is clearly visible to the public. Contact cards for complaints will be located in the local post office and community centres with information that advertises the above contact information for complaints. These cards will also be available at all community engagement meetings and events, in addition to being listed on all newsletters and flyers that are distributed within the community.

In the event of an environment-related complaint from the community, the Construction Manager during construction and the Asset Manager during operation will ensure the matter is recorded and will undertake further investigation. The details of the complaint will be recorded in a Complaints Register which will include the following:

- The date and time, where relevant, of the complaint.
- The means by which the complaint was made (telephone, mail or email).
- Any personal details of the complainant that were provided, or if no details were provided, a note to that effect.
- The nature of the complaint.
- Any action(s) taken in relation to the complaint, including timeframes for implementing the action.
- If no action was taken in relation to the complaint, the reason(s) why no action was taken.
- The status of the complaint (i.e. open/closed).

The Complaints Register will be managed and maintained by the Construction Manager during construction and the Asset Manager during operations. The manager will be responsible for:

- Providing an initial response to the person complaining within 24 hours of the complaint being made, advising them that their complaint is being investigated.
- Forwarding the complaint details to the relevant personnel and contractor, where required.
- Ensuring that the complaint is addressed in a timely manner and that the complaint addressed adequately, ensuring a full response is sent.

- Logging all details on the complaint in the Complaints Register.
- Notifying the relevant authorities, if necessary, in accordance with statutory requirements.
- Ensuring the Complaints Register is made available on the project website and updated regularly, in accordance with CoC 6 Schedule 4, with personal details kept private.

14.3.2. Dispute Resolution

In the event that the procedure for investigating and responding to a complaint, including the implementation of measures for avoiding a recurrence cannot be resolved and a dispute does arise, the Construction Manager (during construction) or Asset Manager (during operations) will do the following:

- Advise DP&E that there is a dispute.
- Provide DP&E with copies of the relevant complaint history.
- If determined necessary by DP&E, engage a specialist with expertise relevant to the issue at hand to investigate the dispute and provide recommendations for resolution.
- Advise the third party in dispute and DP&E in writing, as to when the dispute investigation will be completed.

Provide the third party and DP&E a copy of the dispute investigation report, inclusive of the Construction Manager/Asset Manger's intentions with regards to the implementation of the recommendations for resolution.

14.4. Incident management

An incident is defined in the Development Consent as a set of circumstances that causes or threatens to cause material harm to the environment.

Material harm is defined in the Development Consent as harm that:

- involves actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial; or
- results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding $10,000 (such loss includes the reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment.

14.4.1. Incident Management Procedure

This procedure details the protocols to be followed in the event of an incident. Refer also to the Fire and Emergency Plan which includes additional measures to be taken in the event of an emergency.

This procedure is also within the Environmental Management Strategy document.

Immediate Response

Following an incident, the personnel present at the incident site shall determine whether the area requires isolation. If isolation is required, the following steps should then be taken:

- Stop works around the area;
- Implement containment measures to prevent the impact of the incident spreading; and
- Make a determination as to the significance of the potential environmental impact and, as appropriate, undertake appropriate external notifications.

Internal Reporting

Any incident will be reported immediately to the HSEQ manager. Site inductions will emphasise this obligation to all contractors and personnel working on-site.

External Notifications

All incidents, whether they cause material harm or have the potential to cause material harm, will be notified in writing to the DP&E immediately at compliance@planning.nsw.gov.au. This is in accordance with CoC 3 of Schedule 4. The notification must identify the development (Bomen Solar) and the application number (SSD 8835) and set out the location and nature of the incident.

Depending on whether the incident resulted in material harm or just had the potential to cause material harm, further agency notification may be required, as outlined below.

Material Harm

If the HSEQ determines material harm exists, relevant agencies will be immediately notified and provided the following relevant information:

- the time, date, nature, duration and location of the incident;
- the location of the place where pollution is occurring or is likely to occur;
- the nature, the estimated quantity or volume and the concentration of any pollutants involved, if known;
- the circumstances in which the incident occurred (including the cause of the incident, if known); and
- the action taken or proposed to be taken to deal with the incident and any resulting pollution or threatened pollution, if known.

The agencies that may need to be notified include:

- Fire and Rescue NSW on 000 or for Mobiles Only 112
- NSW EPA on 131 555 (or (02) 9995 5555
- NSW DP&E on 1300 305 695
- The NSW Ministry of Health 02 9391 9000
- Safe Work NSW (formerly WorkCover) on 13 10 50
- The local authority, Wagga Wagga City Council on 1300 292 442 (day time hours)
- Rural Fire Service North West Region on 02 6822 4422
- Roads and Maritime Services on 13 77 88
- Wagga Wagga Police Station on 02 6922 2599

No Material Harm

Where an incident has occurred that has **not** resulted in material harm but had the potential to cause material harm, the HSEQ will immediately investigate and record the following relevant information.

- the time, date, nature, duration and location of the incident;
- the location of the place where pollution is occurring or is likely to occur;
- the nature, the estimated quantity or volume and the concentration of any pollutant involved, if known;

- the circumstances in which the incident occurred (including the cause of the incident, if known); and
- the action taken or proposed to be taken to deal with the incident and any resulting pollution or threatened pollution, if known.

This information will be used to establish measures to avoid a reoccurrence or escalation in scale in the future.

14.4.2. Incident Investigation

As soon as the incident has been contained and external notifications undertaken the HSEQ will then undertake an incident investigation. For major traffic-related incidents, or incidents involving a member of the public, 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.

One purpose of the investigation will be to identify and understand the cause of the incident with a view to modifying procedures to avoid the potential for a recurrence. The types of preventative actions taken could include revision of a Work Method Statement or undertaking targeted Environmental Due Diligence sessions prior to works re-commencing.

The other purpose of the incident investigation will be to define the appropriate remediation work required in order to address any bio-physical impact of the incident. The appropriate remediation work (if required) will be determined by the specific circumstances of the incident.

14.4.3. Incident Reporting

Documentation

Any incident will be recorded on an Incident Report and an updated Incidents Register will be maintained throughout the construction and operation period. Each Incident Report will include details on:

- the date, time and duration of the incident;
- clarify whether there was material harm to the environment;
- detail the nature of the incident;
- climatic conditions;
- the location of the incident;
- pollutants involved;
- circumstances in which the incident occurred; and
- Corrective action taken; external notification (EPA).

Dissemination

For any incident for which there is no material harm, the HSEQ will file a copy of the incident report following the investigation. A summary of Incident Reports will be retained for reporting requirements and made available to agencies on request.

For an incident in which material harm has or could have resulted and the EPA has been notified, the HSEQ will provide reporting to the EPA as may be instructed, in accordance with the timeframes that may be so specified by the EPA.

Copies of any EPA reporting associated with an incident will also be provided to the Department of Planning and Environment and Wagga Wagga City Council.

APPENDIX A – DRIVERS CODE OF CONDUCT

BOMEN SOLAR FARM - DRIVER'S CODE OF CONDUCT

1. INTRODUCTION

All Project personnel must strictly comply with this Driver's Code of Conduct. This Driver's Code of Conduct addresses:

- travelling speeds;
- driver fatigue;
- procedures to ensure that drivers adhere to the designated transport route/s; and
- procedures to ensure that drivers implement safe driving practices.

2. TRAVELLING SPEEDS

Drivers must:

- be aware of the legal speed limit on public roads and designated speed limits for internal access roads within the site;
- not exceed the legal speed limit on public roads; and
- not exceed the speed limit designated for internal access roads within the site.

3. SAFE DRIVING PRACTICE

Drivers must:

- be competent and hold the appropriate licence class for the vehicle used;
- be aware of and comply with all road laws and regulations;
- exercise extra care in adverse weather conditions
- maintain awareness of other drivers and report any observations of driver fatigue or misconduct to the HSEQ manager;
- respect the rights of all road users to share the road;
- cover loose materials when transporting materials; and
- report any incidents in accordance with the Incident Management Procedure.

4. FATIGUE MANAGEMENT

Drivers must:

- rest at least every 2 hours or when required to avoid fatigue;
- stop immediately and rest if feeling drowsy or fatigued;
- ensure adequate length breaks are taken during a shift.

Commuting to and from a project site is a potential contributing factor to fatigue. Where possible this shall be managed by:

- Avoiding long journeys at the end of long shifts
- Incorporating rest breaks into journeys
- Car pooling and rotation of drivers
- Use of minibuses and rotation of drivers
- Use of minibuses or coaches with professional drivers.

Engaging a transport company to provide mini buses or coaches driven by professional drivers has the benefit or enabling people to catch up on sleep to and from the project site (for longer drives), and also means there are fewer cars on the road.

To reduce fatigue, workers who are also driving a mini-bus for more than 30 minutes to or from a site must finish their shift at least 30 minutes before normal finish time and rest in an air-conditioned crib room prior to driving their colleagues back to the nominated drop-off location. In addition, the role of driver shall be rotated within the work group (e.g. one driving leg completed by worker per day).

5. DESIGNATED TRANSPORT ROUTES

Drivers must:

- adhere to the designated heavy vehicle transport route, unless an approved alternative haulage route is in place due to an emergency;
- use only the established site access points on Trahairs Road to enter/exit the site;
- enter and exist the site in a forward direction;
- not turn around on Trahairs Road;
- ensure vehicles leaving the site are in a clean condition; and
- notify the HSEQ manager immediately if there is any damage to the designated heavy vehicle route.

APPENDIX B – CONSULTATION

Lauren | Renew Estate

From: Stander, Adriaan <stander.adriaan@wagga.nsw.gov.au>
Sent: Thursday, 28 March 2019 1:46 PM
To: Lauren | Renew Estate
Cc: Will Stone
Subject: RE: Bomen Solar Farm and Trahairs Road Upgrade (SSD 8835)

Hi Lauren,

We support the TMP and have no further comments.

Thank you,

Adriaan Stander
Strategic Planning Coordinator

1300 292 442
d +61 2 6926 9564 **| m**
e Stander.Adriaan@wagga.nsw.gov.au
Wagga Wagga City Council · 243 Baylis Street (PO Box 20) · Wagga Wagga NSW 2650

From: Lauren | Renew Estate <Lauren@renewestate.com.au>
Sent: Tuesday, 26 March 2019 11:05 AM
To: Stander, Adriaan <stander.adriaan@wagga.nsw.gov.au>
Cc: Will Stone <will.stone@wirsol.com.au>
Subject: RE: Bomen Solar Farm and Trahairs Road Upgrade (SSD 8835)

Hi Adriaan

Many thanks, much appreciated.

Kind regards

Lauren Serjeantson
Environmental Planner

Renew Estate
M: +61 (0) 422689604

From: Stander, Adriaan <stander.adriaan@wagga.nsw.gov.au>
Sent: Tuesday, 26 March 2019 11:01 AM
To: Lauren | Renew Estate <Lauren@renewestate.com.au>
Subject: RE: Bomen Solar Farm and Trahairs Road Upgrade (SSD 8835)

Hi Lauren, I have circulated it for comments to our engineers. Will provide you with feedback before the 29th.

Adriaan Stander
Strategic Planning Coordinator

1300 292 442
d +61 2 6926 9564 **| m**
e Stander.Adriaan@wagga.nsw.gov.au
Wagga Wagga City Council · 243 Baylis Street (PO Box 20) · Wagga Wagga NSW 2650

From: Lauren | Renew Estate <Lauren@renewestate.com.au>
Sent: Monday, 25 March 2019 11:08 AM
To: Stander, Adriaan <stander.adriaan@wagga.nsw.gov.au>
Cc: Ross, Peter <Ross.Peter@wagga.nsw.gov.au>; Will Stone <will.stone@wirsol.com.au>
Subject: RE: Bomen Solar Farm and Trahairs Road Upgrade (SSD 8835)

Hi Adriaan,

Hope you had a good weekend. I just wanted to confirm you received the below email a couple of Friday's ago.

Many thanks

Lauren

Lauren Serjeantson
Environmental Planner

Renew Estate

M: +61 (0) 422689604

From: Lauren | Renew Estate
Sent: Friday, 15 March 2019 3:19 PM
To: Stander, Adriaan <Stander.Adriaan@wagga.nsw.gov.au>
Cc: Ross.Peter@wagga.nsw.gov.au; Will Stone <will.stone@wirsol.com.au>
Subject: RE: Bomen Solar Farm and Trahairs Road Upgrade (SSD 8835)

Good afternoon Adriaan

A Traffic Management Plan (TMP) has now been drafted for the approved Bomen Solar Farm, which is soon to go into construction. Condition 6 of Schedule 3 of the project's Development Consent requires that we consult with Council on this plan before seeking approval of the plan from the Department of Planning and Environment. As such, we have attached the draft TMP for your comment.

As this TMP requires approval from the Department of Planning and Environment prior to the commencement of construction, which is fast approaching, it would be greatly appreciated if Council's review could be completed in the next couple of weeks, by 29 March 2019 if possible.

We would be very happy to answer any questions that you have in relation to the TMP or the project status generally.

Many thanks, and have a good weekend.

Kind regards

Lauren

Lauren Serjeantson
Environmental Planner

Renew Estate
M: +61 (0) 422689604

Lauren Serjeantson
Environmental Planner

Renew Estate

Lauren | Beast Solutions

From: Stander, Adriaan <Stander.Adriaan@wagga.nsw.gov.au>
Sent: Thursday, 22 November 2018 10:07 AM
To: Lauren Lambert
Cc: Will Stone; Tom Harrison
Subject: RE: Bomen Solar Farm and Trahairs Road Upgrade (SSD 8835)

Hi Lauren,

Apologies. Confirm its Condition 4, Schedule 3 of the consent, rather than Condition 1, Schedule 3. Condition 4, Schedule 3 is as below (and in the attached):

Schedule 3, Condition 4 Prior to the commencement of construction, the Applicant must undertake road upgrade works on sections of Trahairs Road, as specified in the EIS (shown in Appendix 1) to the satisfaction of Council.

Regards,

Adriaan Stander
Strategic Planning Coordinator

1300 292 442
d +61 2 6926 9564 **| e** stander.adriaan@wagga.nsw.gov.au
Wagga Wagga City Council · 243 Baylis Street (PO Box 20) · Wagga Wagga NSW 2650

From: Lauren | Renew Estate [mailto:Lauren@renewestate.com.au]
Sent: Thursday, 22 November 2018 9:38 AM
To: Stander, Adriaan <Stander.Adriaan@wagga.nsw.gov.au>
Cc: Will Stone <will.stone@wirsol.com.au>; Tom | Renew Estate <Tom@renewestate.com.au>
Subject: RE: Bomen Solar Farm and Trahairs Road Upgrade (SSD 8835)

Hi Adriaan

Thank you for your response. Council's requirements as outlined in point 2 and 3 will be complied with and incorporated into the project Traffic Management Plan.

In regards to point 1, can you please confirm that you mean Condition 4, Schedule 3 of the consent, rather than Condition 1, Schedule 3. Condition 4, Schedule 3 is as below (and in the attached):

Schedule 3, Condition 4 Prior to the commencement of construction, the Applicant must undertake road upgrade works on sections of Trahairs Road, as specified in the EIS (shown in Appendix 1) to the satisfaction of Council.

Kind regards

Lauren Lambert
Environmental Planner

Renew Estate
M: +61 (0) 422689604

Re.

From: Stander, Adriaan <Stander.Adriaan@wagga.nsw.gov.au>
Sent: Wednesday, 21 November 2018 1:56 PM
To: Lauren | Renew Estate <Lauren@renewestate.com.au>
Subject: FW: Bomen Solar Farm and Trahairs Road Upgrade (SSD 8835)

Hi Lauren,

Apologies for only getting back to you now.

1. Council recently completed works in Trahairs Rd which would satisfy Condition 1, Schedule 3 of the consent.
2. Unsealed section - The road is currently in good condition with no deterioration or potholes because it has been recently graded. Upon completion of construction Council will need to re-inspect the unsealed section of road and will require the developer to reinstate the road to its current condition.
3. Sealed section - The developer should carry out a dilapidation report on the sealed road section. There is signs of cracking at the intersection and longitudinal cracking throughout the pavement that should be noted prior to construction starting at the solar farm. Council will also need to re-inspect the sealed section of road and will require the developer to reinstate the road to its current condition.
4. Change of the conditions to allow additional vehicles trips during construction is supported, subject to the above.

Regards,

Adriaan Stander
Strategic Planning Coordinator

1300 292 442
d +61 2 6926 9564 **| e** stander.adriaan@wagga.nsw.gov.au
Wagga Wagga City Council · 243 Baylis Street (PO Box 20) · Wagga Wagga NSW 2650

From: Lauren | Renew Estate [mailto:Lauren@renewestate.com.au]
Sent: Monday, 12 November 2018 12:17 PM

To: Kell, Tristan <Kell.Tristan@wagga.nsw.gov.au>
Cc: Will Stone <will.stone@wirsol.com.au>; Byron | Renew Estate <byron@renewestate.com.au>
Subject: Bomen Solar Farm - Council endorsement for a change to a condition of Development Consent

Good afternoon Tristan

Renew Estate is seeking from the Department of Planning and Environment (DP&E) a change to Condition 1, Schedule 3 of the project's Development Consent. This condition relates to the permitted number of heavy vehicle movements a day during construction, upgrading or decommissioning. In doing so Renew Estate is also seeking Wagga Wagga City Council's endorsement of the change, as required by the DP&E. The heavy vehicle route to the project site is from the south via Byrnes Road and Trahairs Road which the Council is the road authority for.

The requested change to the condition, as well as the justification and consideration of impacts, is described in the attached letter for your consideration.

We look forward to receiving the Council's response.

Kind regards

Lauren

Lauren Lambert
Environmental Planner

Renew Estate
M: +61 (0) 422689604

From: Lauren | Renew Estate [mailto:Lauren@renewestate.com.au]
Sent: Monday, 12 November 2018 12:17 PM
To: Kell, Tristan <Kell.Tristan@wagga.nsw.gov.au>
Cc: Will Stone <will.stone@wirsol.com.au>; Byron | Renew Estate <byron@renewestate.com.au>
Subject: Bomen Solar Farm - Council endorsement for a change to a condition of Development Consent

Good afternoon Tristan

Renew Estate is seeking from the Department of Planning and Environment (DP&E) a change to Condition 1, Schedule 3 of the project's Development Consent. This condition relates to the permitted number of heavy vehicle movements a day during construction, upgrading or decommissioning. In doing so Renew Estate is also seeking Wagga Wagga City Council's endorsement of the change, as required by the DP&E. The heavy vehicle route to the project site is from the south via Byrnes Road and Trahairs Road which the Council is the road authority for.

The requested change to the condition, as well as the justification and consideration of impacts, is described in the attached letter for your consideration.

We look forward to receiving the Council's response.

Kind regards

Lauren

Lauren Lambert
Environmental Planner

Renew Estate
M: +61 (0) 422689604

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Lauren | Beast Solutions

From:	BAMBERRY Chris D <Chris.BAMBERRY@rms.nsw.gov.au>
Sent:	Friday, 3 May 2019 10:44 AM
To:	Lauren | Beast Solutions
Cc:	Development South West
Subject:	RE: Bomen Solar Farm - RMS endorsement for a change to a condition of Development Consent
Attachments:	BSF Traffic Management Plan v2.pdf

Hi Lauren,

Thanks for making the amendments. On behalf of the Roads and Maritime Services I endorse the Traffic Management Plan.

Regards

Chris Bamberry
Development Assessment Officer
South West Region | Regional & Freight
T 02 6923 6588
www.rms.nsw.gov.au
Every journey matters

Roads and Maritime Services
193-195 Morgan Street Wagga Wagga NSW 2650

From: Lauren | Beast Solutions [mailto:Lauren@beast.solutions]
Sent: Monday, 29 April 2019 9:26 PM
To: BAMBERRY Chris D
Cc: Development South West
Subject: RE: Bomen Solar Farm - RMS endorsement for a change to a condition of Development Consent

Good afternoon Chris,

Thank you again for the review of the Traffic Management Plan for Bomen Solar Farm. Please find below our responses to RMS' comments and an updated TMP (V2).

Once you have reviewed the responses and updates, please confirm if RMS is satisfied with the updated TMP. If possible it would be great to have a response by the end of the week.

Kind regards
Lauren

· 7.2 - If known, please include the details of the source of the other construction materials to be sourced locally. Haulage vehicles for Civil construction materials such as gravel and concrete can make up a significant component of the traffic for a solar farm project, ideally preferred transport routes for these materials should be developed in consultation with the Council and the Roads and Maritime.

The source of the other construction materials has not yet been determined by the EPC Contractor. Under the development consent, all heavy vehicles, regardless of their origin, are required to travel to the site via the

approved vehicle route (Sturt Highway, Byrnes Road, Eunony Bridge Road and Trahairs Road). All contractors will be required to comply with the Heavy Vehicle National Law at all stages of materials transport.

· 7.3 - Consideration needs to be given to the number workers who will travel to the site in light vehicles. What measures will be taken to minimise the risk of congestion at peak worker arrival times? Will there be adequate parking on site to accommodate light vehicles? Has provision of a shuttle bus from Wagga been considered during peak construction periods?

The forecasted average daily light vehicle movements in Table 4 is conservative as it does not account for the likely use of shuttle busses. The Project is committed to minimising the risk of congestion during peak worker arrival times. As such it will investigate the options to minimise the risk of congestion once the workforce plan has been prepared and workers have been signed up. Once it is known where the majority of workers are coming from, the Project will consider providing transport in the form of shuttle busses. It is anticipated that the majority of workers will coming from Wagga Wagga, and therefore it is likely that shuttle busses will be provided to a number of different central locations around Wagga Wagga. The commitment to investigate shuttle bus options has been added to the TMP in Section 9.1 and 13.

There will still be parking on site for the buses, onsite vehicles and the balance of the workers not utilising the shuttle busses. Adequate parking will be provided to comfortably accommodate these vehicles.

· 8.3 - Consideration needs to be given to how heavy vehicle deliveries will be managed within the construction site. For example, adequate provision for standing heavy vehicles within the site, staging of deliveries to avoid queueing and congestion, provision for heavy vehicles to enter and leave without the need for reversing and anything else that needs to be considered to ensure safety of workers and the general public and minimal disruption to traffic.

A new Section 7.2 has been added on the management of heavy vehicle deliveries. The real-time management of deliveries will be managed to reduce the potential for queuing of heavy vehicles, both outside the site entrance and within the site, through the implementation of scheduling (e.g. staging of deliveries) and communication protocols. Heavy delivery vehicles from ports are to start transportation as soon as container loads are safely secured, resulting in single vehicle movements rather than convoy/platoon traffic to avoid conflicts with other motorists and congestion upon arrival at the site.

The laydown and delivery area will include adequate provision for standing of multiple heavy vehicles, to allow multiple deliveries to occur simultaneously without causing queuing. The laydown and delivery area will also be designed to allow for heavy vehicles to safely unload away from pedestrian areas, and without the need for reversing.

All vehicles must be loaded and unloaded within the site, and enter and leave the site in a forward direction. Provision will be made within the site to accommodate turn around movements without the need for reversing.

The location of the site is particularly favourable with respect to site access, as Trahairs Road east of its intersection with Byrnes Road, has very low existing traffic volumes (virtually no traffic near the Bomen Solar Farm site entrances), and is a no-through road, significantly reducing the potential for the project traffic to cause disruption to the public. Existing users of Trahairs Road are mostly limited to traffic associated with the Riverina Oils and BioEnergy (ROBE) facility. The ROBE entrance is located on Trahairs Road near the intersection with Byrnes Road and as such, ROBE traffic would not travel beyond the facility's entrance along Trahairs Road towards the Bomen Solar Farm site. Further, there is no through-traffic on Trahairs Road as the constructed road terminates adjacent to the eastern boundary of the Project site.

· The Drivers Code of Conduct could consider fatigue issues in a bit more detail. As well as take a break every 2 hours drivers should be encouraged to stop immediately and rest if feeling drowsy or fatigued. Drivers should also be encouraged to plan their journey with rest breaks, ensure adequate length breaks are taken, avoid lengthy journeys at the end of long shifts, etc.

The Drivers Code of Conduct has been revised to include more detail on fatigue management (refer Section 4 of the Code).

· Consider rewording the Drivers code of conduct slightly to include ‘exercise extra care in adverse weather conditions’. This should apply to light and heavy vehicles. Amended.

Lauren Serjeantson
Environmental Planner

Renew Estate
M: +61 (0) 422689604

Re.

From: BAMBERRY Chris D <Chris.BAMBERRY@rms.nsw.gov.au>
Sent: Friday, 29 March 2019 5:50 PM
To: Lauren | Beast Solutions <Lauren@beast.solutions>
Cc: Development South West <development.south.west@rms.nsw.gov.au>
Subject: RE: Bomen Solar Farm - RMS endorsement for a change to a condition of Development Consent

Hi Lauren,

Roads and Maritime Services has reviewed the Traffic Management Plan for the Bomen Solar Farm, please refer to the comments provided below:

- 7.2 - If known, please include the details of the source of the other construction materials to be sourced locally. Haulage vehicles for Civil construction materials such as gravel and concrete can make up a significant component of the traffic for a solar farm project, ideally preferred transport routes for these materials should be developed in consultation with the Council and the Roads and Maritime.
- 7.3 - Consideration needs to be given to the number workers who will travel to the site in light vehicles. What measures will be taken to minimise the risk of congestion at peak worker arrival times? Will there be adequate parking on site to accommodate light vehicles? Has provision of a shuttle bus from Wagga been considered during peak construction periods?
- 8.3 - Consideration needs to be given to how heavy vehicle deliveries will be managed within the construction site. For example, adequate provision for standing heavy vehicles within the site, staging of deliveries to avoid queueing and congestion, provision for heavy vehicles to enter and leave without the need for reversing and anything else that needs to be considered to ensure safety of workers and the general public and minimal disruption to traffic.
- The Drivers Code of Conduct could consider fatigue issues in a bit more detail. As well as take a break every 2 hours drivers should be encouraged to stop immediately and rest if feeling drowsy or fatigued. Drivers should also be encouraged to plan their journey with rest breaks, ensure adequate length breaks are taken, avoid lengthy journeys at the end of long shifts, etc.
- Consider rewording the Drivers code of conduct slightly to include ‘exercise extra care in adverse weather conditions’. This should apply to light and heavy vehicles.

If you would like to further discuss any of these comments or if you require any further information in regard to this matter please contact either myself on 6923 6588 or Maurice Morgan on 6923 6611.

Regards

Chris Bamberry
Development Assessment Officer
South West Region | Regional & Freight
T 02 6923 6588
www.rms.nsw.gov.au
Every journey matters

Roads and Maritime Services
193-195 Morgan Street Wagga Wagga NSW 2650

From: Lauren | Beast Solutions [mailto:Lauren@beast.solutions]
Sent: Friday, 15 March 2019 3:14 PM
To: MORGAN Maurice W
Cc: Development South West; BAMBERRY Chris D; Will Stone
Subject: RE: Bomen Solar Farm - RMS endorsement for a change to a condition of Development Consent

Good afternoon Maurice

A Traffic Management Plan (TMP) has now been drafted for the approved Bomen Solar Farm in Wagga Wagga, which is soon to go into construction. Condition 6 of Schedule 3 of the project's Development Consent requires that we consult with RMS on this plan before seeking approval of the plan from the Department of Planning and Environment. As such, we have attached the draft TMP for your comment.

The heavy vehicle route to the site utilises Sturt Highway and its intersection with Eunony Bridge Road, after which the heavy vehicle route follows local Council roads to the site.

As this TMP requires approval from the Department of Planning and Environment prior to the commencement of construction, which is fast approaching, it would be greatly appreciated if RMS' review could be completed in the next couple of weeks, by 29 March 2019 if possible.

We would be very happy to answer any questions that you have in relation to the project or the TMP.

Many thanks, and have a good weekend.

Kind regards

Lauren

Lauren Serjeantson
Environmental Planner

Renew Estate
M: +61 (0) 422689604

From: MORGAN Maurice W <Maurice.MORGAN@rms.nsw.gov.au>
Sent: Thursday, 13 December 2018 12:48 PM
To: Will Stone <will.stone@wirsol.com.au>

Cc: Development South West <development.south.west@rms.nsw.gov.au>
Subject: FW: Bomen Solar Farm - RMS endorsement for a change to a condition of Development Consent

Wil

I refer to your request to modify schedule 3 condition 1 to include the maximum number of heavy vehicle movements from 30 to 60 per day during the peak construction period. Roads and Maritime Services questions the need for the maximum number of 60 as proposed however as Roads and Maritime Services is the road authority for the Sturt Highway and its intersection with Eunony Bridge road Roads and Maritime considers that this increased volume will not be detrimental to the highway and this intersection.

Regards

Maurice Morgan
Manager Land Use
South West NSW| Regional and Freight Division
193 Morgan Street, Wagga Wagga NSW 2650
T: (02) 6923 6611 | maurice.morgan@rms.nsw.gov.au

Every journey matters
rms.nsw.gov.au

We work flexibly. If you receive an email from me outside of normal business hours, I'm not expecting you to read or reply until normal business hours.

From: Will Stone <will.stone@wirsol.com.au>
Date: 6 December 2018 at 4:29:25 pm AEDT
To: "maurice.morgan@rms.nsw.gov.au" <maurice.morgan@rms.nsw.gov.au>
Cc: BAMBERRY Chris D <Chris.BAMBERRY@rms.nsw.gov.au>, Lauren | Beast Solutions <Lauren@beast.solutions>, Tom Harrison <tom@renewestate.com.au>, "Byron Serjeanston" <byron@renewestate.com.au>
Subject: Bomen Solar Farm - RMS endorsement for a change to a condition of Development Consent

Dear Maurice,

Renew Estate is seeking an amendment from the Department of Planning and Environment (DP&E) to a condition of consent for Bomen Solar Farm, a State Significant Development north of Wagga Wagga, NSW:
http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=8835

The condition we are seeking to amend (Schedule 3, Condition 1) relates to the permitted number of heavy vehicle movements per day during construction, upgrading or decommissioning.

Renew Estate is seeking RMS's endorsement of the change, as required by the DP&E. The requested change to the condition, as well as the justification and consideration of impacts, is described in the attached letter for your consideration.

Please note that WIRSOL Energy is a major shareholder of the renewable energy development company Renew Estate (www.renewestate.com). WIRSOL is the owner of one of the largest portfolios of solar farms in Australia with nearly 400 MW (5 solar farms) either under construction

or operational. WIRSOL is also involved in the Hay Sun Farm which is a project developed by Overland.

Please let me know if you require any more information. I look forward to your response.

Regards
Will Stone
Development Manager

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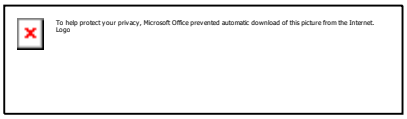

Before printing, please consider the environment

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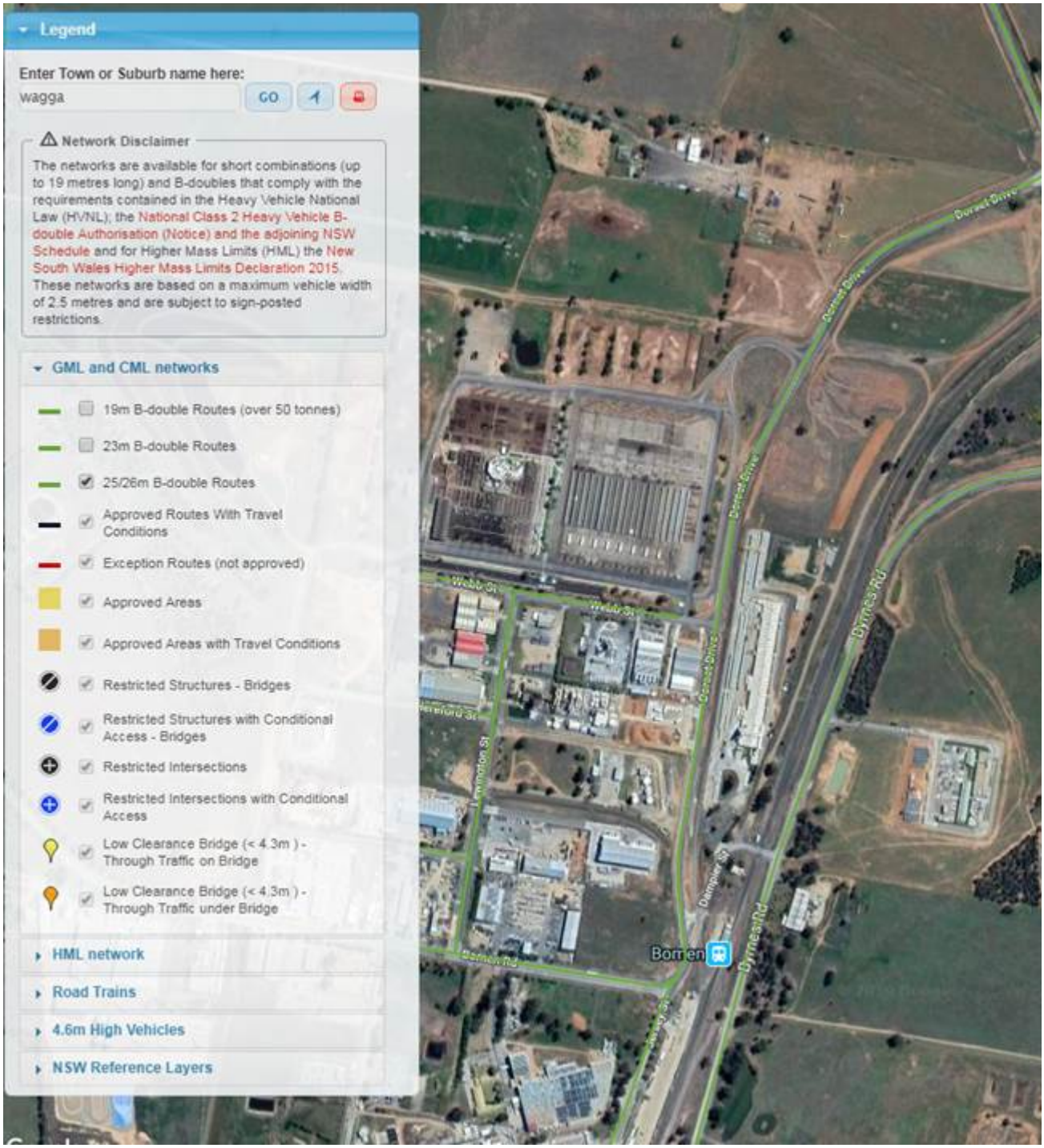
Lauren | Renew Estate

From: Stander, Adriaan <stander.adriaan@wagga.nsw.gov.au>
Sent: Wednesday, 26 June 2019 9:38 PM
To: Lauren | Renew Estate
Subject: Fwd: Bomen Solar Farm - alternative heavy vehicle route from Bomen rail sidings

Hi Lauren. See advice below. With this in mind, we have no objection to the request.

Begin forwarded message:

> **From:** "Shrestha, Tulshi" <Shrestha.Tulshi@wagga.nsw.gov.au>
> **Date:** 25 June 2019 at 11:15:52 am AEST
> **To:** "Stander, Adriaan" <stander.adriaan@wagga.nsw.gov.au>
> **Subject: RE: Bomen Solar Farm - alternative heavy vehicle route from Bomen rail sidings**
>
> Hi Adriaan,
> I had a quick look of the approved B Double Routes. It appears in the link below that the proposed route is already gazetted as B Double route.
> Could you please suggest Lauren about this.
>
> https://www.rms.nsw.gov.au/business-industry/heavy-vehicles/maps/restricted-access-vehicles-map/map/index.html
>
> Thanks.



Regards,
Tulshi

From: Stander, Adriaan <stander.adriaan@wagga.nsw.gov.au>
Sent: Monday, 24 June 2019 5:36 PM
To: Shrestha, Tulshi <Shrestha.Tulshi@wagga.nsw.gov.au>
Subject: FW: Bomen Solar Farm - alternative heavy vehicle route from Bomen rail sidings

Hi Tulshi,

In the absence of Peter Ross, can you please provide comment to the request below? I've highlighted the bit that requires a response from you in yellow.

Thanks,

Adriaan Stander
Strategic Planning Coordinator

1300 292 442
d +61 2 6926 9564 **| m**
e Stander.Adriaan@wagga.nsw.gov.au
Wagga Wagga City Council · 243 Baylis Street (PO Box 20) · Wagga Wagga NSW 2650

From: Lauren | Renew Estate <Lauren@renewestate.com.au>
Sent: Monday, 24 June 2019 2:58 PM
To: Stander, Adriaan <stander.adriaan@wagga.nsw.gov.au>
Subject: RE: Bomen Solar Farm - alternative heavy vehicle route from Bomen rail sidings

Hi Adriaan

Just wondering if you have had the chance to look at this yet?

Kind regards

Lauren Serjeantson
Environmental Planner

Renew Estate
M: +61 (0) 422689604

Re.

From: Lauren | Renew Estate
Sent: Wednesday, 19 June 2019 2:12 PM
To: Stander, Adriaan <stander.adriaan@wagga.nsw.gov.au>
Cc: Kell, Tristan <kell.tristan@wagga.nsw.gov.au>; Mathur, Yogen <ymathur@beon-es.com.au>; Coburn, Justin <jucoburn@beon-es.com.au>
Subject: Bomen Solar Farm - alternative heavy vehicle route from Bomen rail sidings

Good afternoon Adriaan

As you know, construction of Bomen Solar Farm commenced a couple of weeks ago and soon many of the materials will begin to be delivered to site. One of our logistics contractors, Seaway Logistics, is proposing to send some of the project materials to Bomen via rail, specifically to the rail sidings in the Bomen Industrial Park, located on Jersey Street. We

consider this to be a great outcome because it removes heavy vehicles from the road, and is a more sustainable form of transport.

However, for the transport of the materials from the rail sidings to the project site by trucks, a DA modification is required from Department of Planning and Environment (DPE) for approval of this alternative heavy vehicle route. Currently the approved heavy vehicle route to site is Sturt Highway > Eunony Bridge Road > Byrnes Road > Trahairs Road.

The route from the rail sidings is shown below (blue dashed line), and follows Jersey Street, Dorset Drive and East Bomen Road before joining up with the currently approved heavy vehicle route on Byrnes Road.

It is proposed to DPE that the DA modification is assessed as a Minor Modification with no public exhibition. We consider this alternative heavy vehicle route to have negligible impact on the environment and community for the following key reasons:

- The alternative route is through an industrial area (Bomen Industrial Park)

- The alternative route is along roads that are suited for heavy vehicles, currently servicing the industrial area. There are also no rail crossings due to the railway underpass on East Bomen Road.

- The closest residential receptors are more than 1km away from the alternative route and therefore will not be affected.

- The average daily number of truck movements along the alternative route is 5 per day over a three month period (commencing July 2019) thereby having a negligible impact on traffic flows.

- The delivery of materials to Bomen via rail has an overall positive impact on the environment and community through the removal heavy vehicles from the road, and being a more sustainable form of transport.

As Council is the road authority for these roads, we would like to seek your endorsement of this alternative heavy vehicle route.

Further, while the specifications of these roads are clearly suited for heavy vehicles and currently carries heavy vehicles travelling within the Bomen Industrial Park, it would be very appreciated if your response could also verify that these roads are suited for heavy vehicles. If you have any information on specifications of these roads I can include this in our DA modification application to demonstrate they are suitable. I note that the East Bomen Road and Dorset Drive components of the route were recently constructed (completed Nov 2017) and can carry a B-Triple vehicle.

We look forward to your response.

Kind regards

Lauren

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