

Wellington North Solar Farm – Traffic Management Plan

FINAL

December 2022

Prepared by The Transport Planning Partnership for Umwelt (Australia) Pty Limited on behalf of Lightsource bp
Renewable Energy Investments Limited



Traffic Management Plan Wellington North Solar Farm

Prepared for:

Lightsource bp Renewable Energy Investments
Limited (LSbp)

2 December 2022

The Transport Planning Partnership

Traffic Management Plan Wellington North Solar Farm

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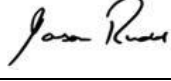
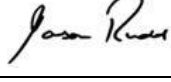
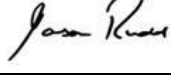
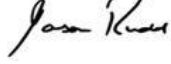
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- C. TRAFFIC MITIGATION AND MANAGEMENT MEASURES FOR THE DEVELOPMENT
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- E. SEAWAY'S TRANSPORT COMPLIANCE MANAGEMENT POLICY AND CHAIN OF RESPONSIBILITY AND DRIVER FATIGUE MANAGEMENT POLICY STATEMENT

1 Introduction

Lightsource Development Services Australia Pty Ltd, a wholly owned subsidiary of Lightsource bp Renewable Energy Investments Limited (LSbp) (the Applicant) received development consent for the Wellington North Solar Farm (SSD 8895) in April 2021.

LSbp is a global leader in the development and management of solar energy projects, and a 50:50 joint venture with bp. Its purpose is to deliver affordable and sustainable solar power for businesses and communities around the world. LSbp is active in 14 countries, across six continents, however are continuing to rapidly expand globally. LSbp provides a full service to its customers, from initial site selection, financing and permitting through to construction, long-term operation and decommissioning. Of the 14 countries LSbp is active in, it currently has seven in-country Environmental Planning and Sustainability teams (Australia, Brazil, Netherlands, Republic of Ireland, Spain, United Kingdom and USA).

The development is located approximately 7 km northeast of Wellington in New South Wales (NSW). It is wholly within the Dubbo Regional Local Government Area (LGA). The development involves the construction, operation and decommissioning of a 330 megawatt (MW) ac/415 MW peak solar farm and associated infrastructure.

The development consent was granted by a delegate of the Minister for Planning and Public Spaces under section 4.38 of the NSW *Environmental Planning and Assessment Act 1979* (EP&A Act).

1.1 Purpose of this Plan

This Traffic Management Plan (TMP) has been prepared to address relevant conditions within the development consent (SSD-8895). Specifically, Schedule 3, Condition 9 requires a Traffic Management Plan to be prepared for the development.

As permitted by the development consent, construction will consist of two stages as follows:

- Early Works: focusing on the road upgrades at the future site access off Goolma Road, required under Condition 6 of Schedule 3 of the development consent.
- Main Works: construction of the solar farm development on the site.

Road upgrades required under Condition 6 of Schedule 3 of the development consent (and associated construction traffic) form part of the early works component of the development. This matter would be documented and considered by the independent verifier for the road work. Accordingly, and at the request of Transport for NSW, construction traffic management practices for road upgrades are beyond the scope of the plan.

Also, this TMP will address Conditions 2 to 8 of Schedule 3 pertaining to separate transport aspects.

This TMP assesses the traffic, public transport, local access, pedestrian, and parking implications associated with the proposed construction works and provides mitigation measures, where necessary, to ensure that impacts on the surrounding road network are mitigated, minimised and managed.

Table 1.1 presents the requirements of Condition 9 and where these items have been addressed in this report. Similarly, Table 1.2 presents the requirements of Conditions 2 to 8 and where these items have been addressed in this report.

Table 1.1: Development Consent Condition 9

Condition 9	Addressed In
(a) details of the transport route to be used for development-related traffic;	Sections 3.3 and 3.4
(b) details of the road upgrade works required by Condition 6 of Schedule 3 to this consent	Section 3.1
(c) details of the independent dilapidation surveys required by condition 7 of Schedule 3 to this consent;	Section 2.6 & Appendix D
(d) details of the measures that would be implemented to minimise traffic impacts during construction, upgrading or decommissioning works, including:	Chapter 5
• temporary traffic controls, including detours and signage	Section 5.1 & Appendix A
• notifying the local community about project-related traffic impacts	Section 5.9
• procedures for receiving and addressing complaints from the community about development-related traffic	Section 5.8
• minimising potential cumulative traffic impacts with other projects in the area (including Ungula Wind Farm), including during construction, upgrading or decommissioning works	Section 2.3
• minimising potential for conflict with school buses, other motorists and road users as far as practicable	Chapter 4
• minimising dirt tracked onto the public road network from development-related traffic	Section 3.3
• details of the employee shuttle bus service, including pick-up and drop-off points and associated parking arrangements for construction workers, and measures to encourage employee use of this service	Sections 3.5 & 3.6
• details of the measures to encourage car-pooling or ride sharing by employees	Section 3.5
• scheduling of haulage vehicle movements to minimise convoy length or platoons	Section 5.4
• responding to local climate conditions that may affect road safety such as fog, dust, wet weather	Appendix B (Driver Code of Conduct)
• responding to any emergency repair or maintenance requirements	Sections 3.2 & 5.7
• a traffic management system for managing over-dimensional vehicles	Section 3.4.2 & Chapter 5
(e) a driver's code of conduct that addresses:	Appendix B (Driver Code of Conduct)
• travelling speeds	
• driver fatigue	
• procedures to ensure that drivers adhere to the designated transport routes	

Condition 9	Addressed In
<ul style="list-style-type: none"> procedures to ensure that drivers implement safe driving practices 	
(f) a program to ensure drivers working on the development receive suitable training on the code of conduct and any other relevant obligations under the Traffic Management Plan.	Sections 5.2 to 5.4 of this Plan & Engineering, Procurement and Construction (EPC) Contractor to Develop and Implement Workers / Drivers Site Induction and Training Program

Table 1.2: Development Consent Conditions 2 – 8

Condition 2	Addressed In
<p>The Applicant must ensure that the:</p> <p>(a) development does not generate more than:</p> <ul style="list-style-type: none"> 60 heavy vehicle movements a day during construction, upgrading and decommissioning; 2 over-dimensional vehicle movements during construction, upgrading and decommissioning; and 5 heavy vehicle movements a day during operations; 	Section 3.1.2
<p>(b) length of any vehicles (excluding over-dimensional vehicles) used for the development does not exceed 19 metres, on the public road network; and unless the Planning Secretary agrees otherwise.</p>	Section 3.4.1
Condition 3	Addressed In
<p>The Applicant must keep accurate records of the number of over-dimensional and heavy vehicles entering or leaving the site each day for the duration of the project.</p>	Section 3.1.2
Condition 4	Addressed In
<p>All over-dimensional and heavy vehicles associated with the development must travel to and from the site via Mitchell Highway and Goolma Road and Twelve Mile Road.</p>	Section 3.4
Condition 5	Addressed In
<p>All vehicles associated with the development must enter and exit the site via the:</p> <p>(a) primary site access on Goolma Road; or</p> <p>(b) transmission line access points on Goolma Road and Twelve Mile Road;</p>	Sections 3.3 & 3.4
Condition 6	Addressed In
<p>Unless the Planning Secretary agrees otherwise, prior to commencing construction, the Applicant must:</p> <p>(a) construct and maintain a new BAR and AUL treatment at the intersection of the primary site access with Goolma Road for the posted speed limit on Goolma Road; and</p>	Section 3.1.1
<p>(b) close the 'Existing Access Road' on Goolma Road, and reinstate the road reserve to match the surrounding roadside landform; and</p>	
<p>(c) undertake upgrades in accordance with the Austroads Guide to Road Design (as amended by TfNSW supplements) and to the satisfaction of the relevant roads authority.</p>	

Condition 7	Addressed In
<p>The Applicant must:</p> <p>(a) undertake an independent dilapidation survey to assess the:</p> <ul style="list-style-type: none"> existing condition of Goolma Road and Twelve Mile Road on the transport route, prior to construction, upgrading or decommissioning activities; and condition of Goolma Road and Twelve Mile Road on the transport route, following construction, upgrading or decommissioning activities; 	Section 2.6 & Appendix D
<p>(b) repair Goolma Road and Twelve Mile Road on the transport route, if dilapidation surveys identify that the road/s have been damaged during construction, upgrading or decommissioning activities;</p> <p>in consultation with the relevant roads authority, and to the satisfaction of the Planning Secretary.</p>	
Condition 8	Addressed In
<p>The Applicant must ensure:</p> <p>(a) the internal roads are constructed as all-weather roads;</p>	LSbp confirms this will be undertaken as part of broader Development design
<p>(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;</p>	Section 3.6
<p>(c) the capacity of the existing roadside drainage network is not reduced;</p>	LSbp confirms this will be undertaken as part of broader Development design
<p>(d) all vehicles are loaded and unloaded on site, and enter and leave the site in a forward direction; and</p>	Section 3.1.2
<p>(e) development-related vehicles leaving the site are in a clean condition to minimise dirt being tracked onto the sealed public road network.</p>	Section 3.3

This TMP was prepared in consultation with Transport for NSW (TfNSW) and Dubbo Regional Council (Council), as documented in Chapter 6. The TMP has been prepared and checked by engineers who hold the RMS Prepare a Work Zone Traffic Management Plan certification.

2 Existing Transport Conditions

2.1 Site Location

The development site is located at approximately 7 kilometres (km) north-east of Wellington town centre within the Dubbo Regional Local Government Area (LGA). The site area is 978 hectares (ha), however, the development footprint will make up for 83% of the site area.

The site is bounded by Campbells Lane to the north, Goolma Road to the east, and Saxa Road to the west. Along the southern boundary of the development is Wellington Solar Farm (SSD- 8573), and directly east of the development site are Wellington Correction Centre and Macquarie Correctional Centre.

The development area is shown in Figure 2.1 while its location within the regional context is depicted in Figure 2.2.

Figure 2.1: Development Site Location

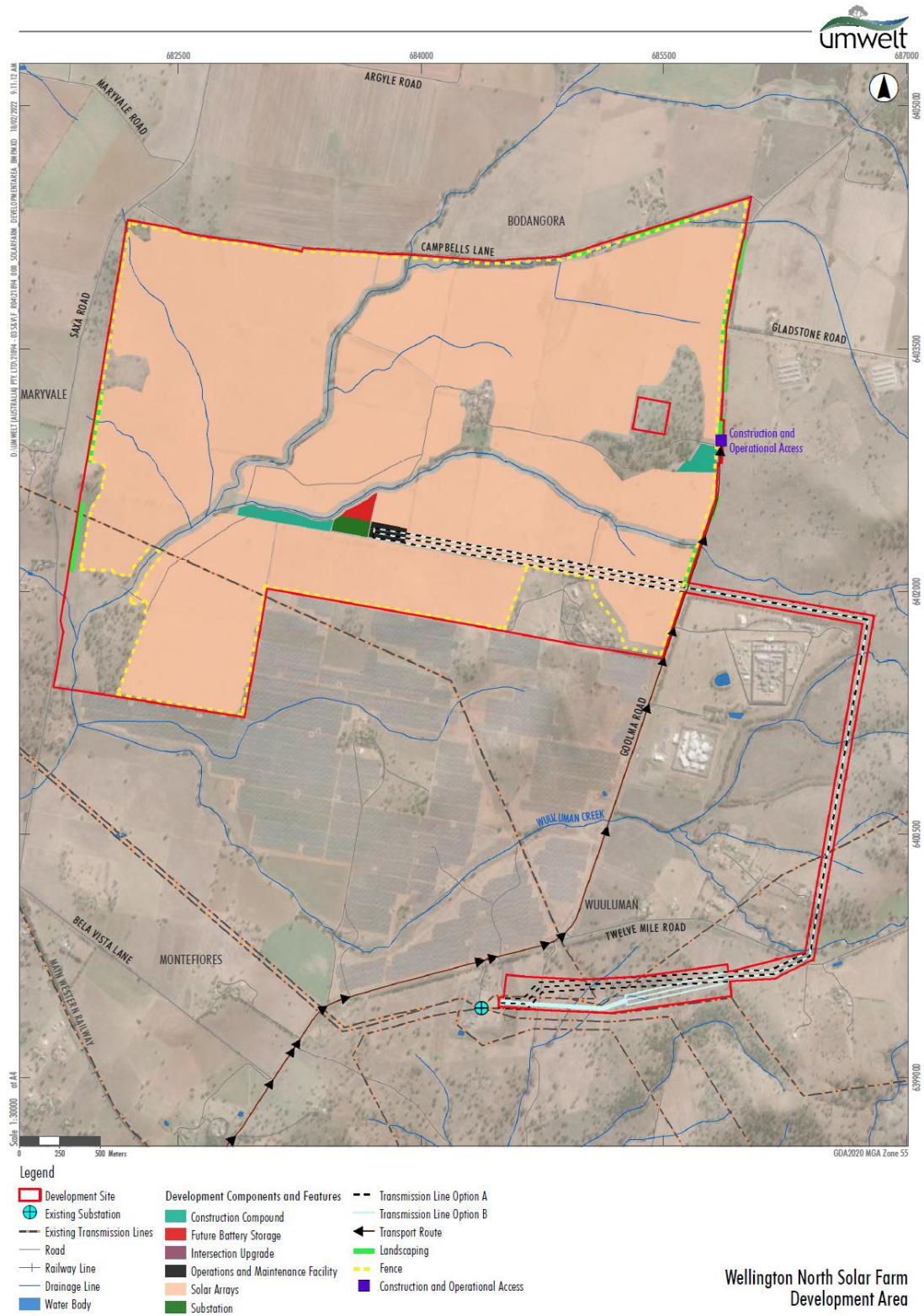


Figure 2.2: Development Site Location

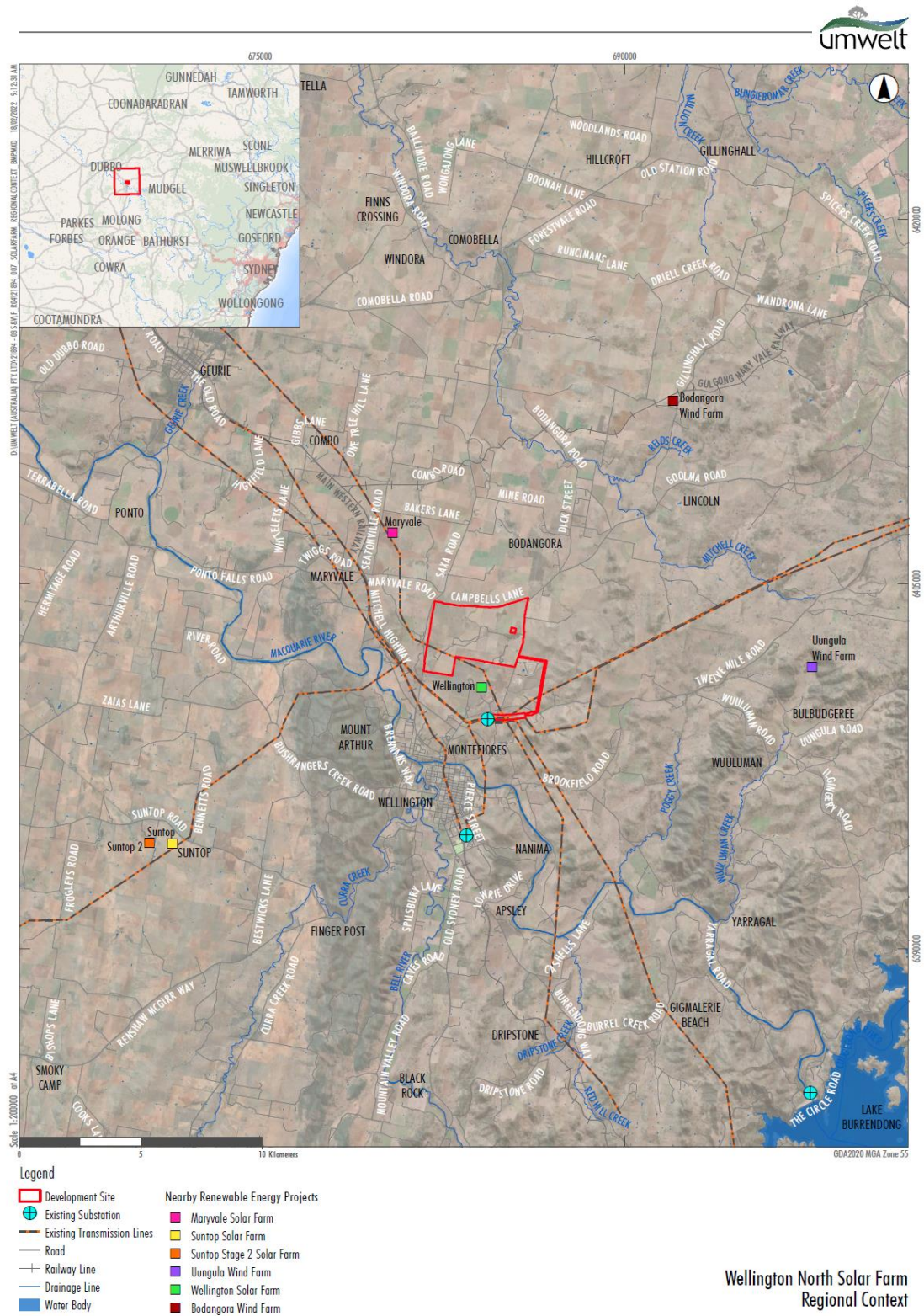


Image Source: ESRI Basemap (2021) Data source: NSW DSFI (2021), NPWS Estate (2019)

2.2 Surrounding Road Network

Goolma Road is a two-lane two-way road with centreline marking separating the opposing travel lanes. According to the NSW Road Network Classifications online map, Goolma Road is a State road. The posted speed limit on Goolma Road is 100 km/h. It has a 7.7 m wide sealed carriageway (opposite the development site). Goolma Road intersects A32 Mitchell Highway approximately 7 km south of the development at a priority-controlled intersection. The development site will be mainly accessed via Goolma Road.

A32 Mitchell Highway is a state road between Bathurst and Nyngan in central NSW. It has a speed limit of 110 km/h. However, as it passes through regional town centres, including Wellington town centre, the speed limit is reduced to 50 km/h. The highway is a two-lane two-way road with overtaking lanes, auxiliary lanes and turning treatments at various intersections along its length.

Campbells Lane is an unsealed local street located at the north of the development. It spans for 7 km in the south-west direction between Goolma Road and Saxa Road.

Saxa Road is a sealed local road with two-way traffic on an undivided carriageway. It has a north-south configuration, and links Mitchell Highway to the south (in Wellington town centre) with B84 Golden Highway to the north.

2.3 Traffic Volumes

An automatic tube count (ATC) survey was undertaken in 2018 along Goolma Road, Saxa Road and Campbells Lane. The ATC was commissioned at the time of preparing the Traffic Impact Assessment (undertaken by GHD). Traffic counters were located as follows:

- Goolma Road, 300 m south of the access point to the Wellington and Macquarie Correction Centre.
- Saxa Road, 500 m north of the intersection with Bela Vista Lane.
- Campbells Lane, 400 m west of the intersection with Goolma Road.

The 2018 traffic volumes have been adjusted up to 2021 by applying a background traffic growth rate. This rate has been estimated based on population growth within the Dubbo Regional Council as per Australia Bureau Statistic (ABS) census data. Table 2.1 shows that for the period between 2015 and 2020, the average population growth rate in the region was 1.23% per annum (pa). This rate has been applied to the 2018 ATC data to determine the 2021 traffic flows along these roads.

Table 2.1: Population Growth within Dubbo Regional Council LGA (2015-2020)

Year	Population	Growth from Previous Year	Growth from Previous Year as %	Average Growth Rate
2015	50,847	-	-	1.23%
2016	51,404	+557	1.10%	
2017	52,133	+729	1.42%	
2018	53,167	+1,034	1.98%	
2019	53,710	+543	1.02%	
2020	54,044	+334	0.62%	

Source: REMPlan (data accessed online 08/12/2021)

It is noted that the 2018 ATC survey was conducted during the construction of surrounding projects, including the Macquarie Correctional Centre (Wellington) and Bodangora Wind Farm. The construction phase for each project has been assumed to generate a higher trip generation, compared to operational phase. However, these construction projects have since been completed, which means that current traffic flows are likely to be less than those recorded in 2018. This would have a direct impact on Goolma Road, which is the road used to access Macquarie Correctional Centre and Bodangora Wind Farm.

The Wellington Solar Farm (SSD-8573) is currently in the commissioning stage, with limited traffic. It is due to commence operation in December 2022. Goolma Road will be used as the primary access for the development, as well as for Wellington Solar Farm, however with Wellington Solar Farm being at the commissioning and operational stages it will generate substantially less vehicle trips on Goolma Road.

Construction of Ungula Wind Farm is expected to commence in December 2022. The Ungula Wind Farm would be accessed via Twelve Mile Road, which branches off Goolma Road approximately 3.2 km south of the development site. Potential cumulative impacts associated with the concurrent construction of the development and nearby Ungula Wind Farm (SSD 6687) is being managed via consultation between LSbp (and/or the EPC Site Manager) and the wind farm proponent. This is focusing on the likely timing overlap for key road usage activities, such as over-dimensional vehicle access and larger scale equipment deliveries, and timing the Goolma Road - Twelve Mile Road intersection upgrade (to be completed by the Ungula wind farm proponent).

Furthermore, and as required by condition 9(d) of Schedule 3 within the development consent, cumulative impacts associated with any upgrading and decommissioning works are being managed via consultation between LSbp (and/or the EPC Site Manager) and the wind farm proponent. This is focussing on the likely timing overlap for key road usage activities, such as over-dimensional vehicle access and larger scale equipment deliveries. For upgrading and decommissioning works the Goolma Road - Twelve Mile Road intersection upgrade will have been completed by the Ungula wind farm proponent.

Further discussion on possible cumulative project impacts is contained within Section 4.1.1.

Daily traffic volumes on Goolma Road are shown in Figure 2.3, while average hourly traffic volumes are shown in Figure 2.9. Table 2.2 presents the highest hourly vehicle movements during the AM period and the PM period on weekdays and weekends.

Figure 2.3: Daily Traffic Volume on Goolma Road (2021)

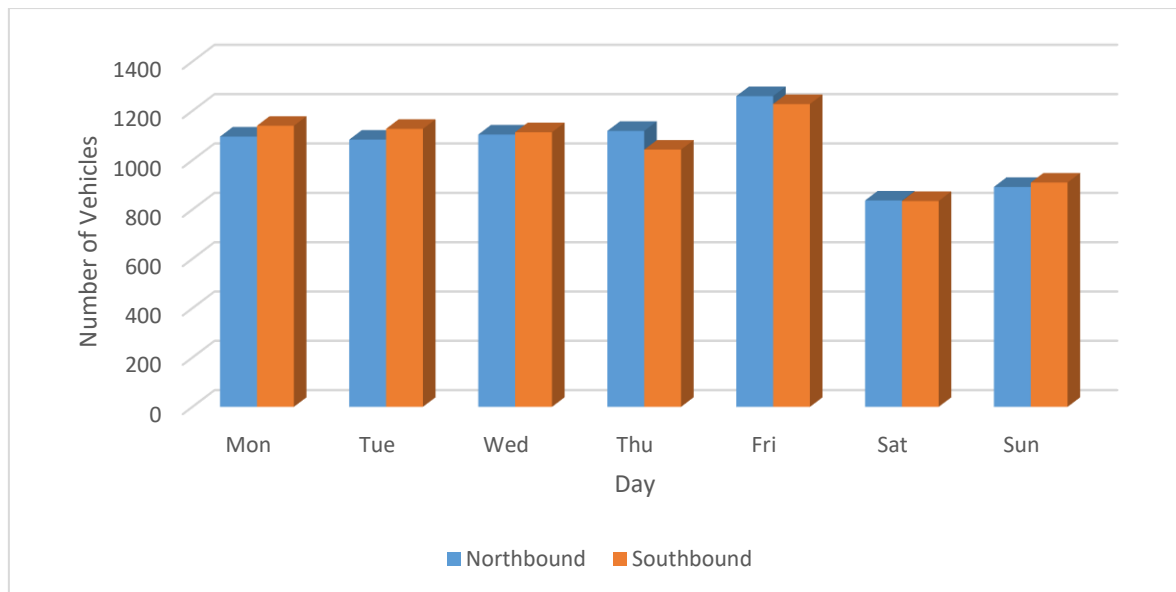


Figure 2.4: Average Hourly Traffic on Goolma Road (2021)

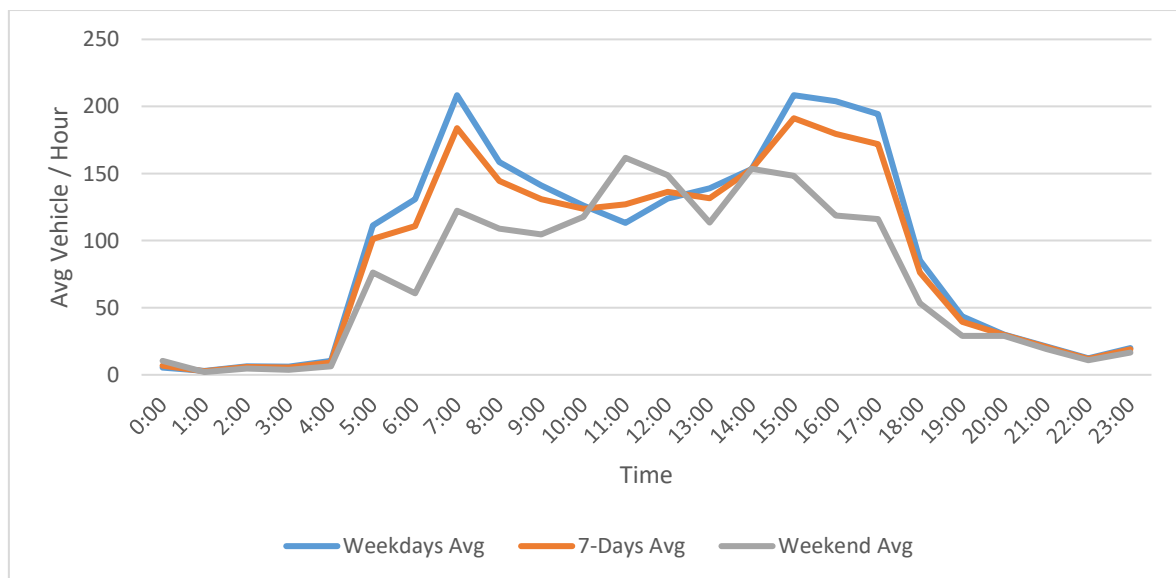


Table 2.2: Peak Hourly Traffic Volume on Goolma Road

Period	Peak Hourly Two-Way Traffic Volume (Vehicles per hour)
Weekday AM Peak (07:00 - 08:00)	217
Weekday PM Peak (15:00 - 16:00)	235
Weekend Peak (11:00 - 12:00)	190

Daily traffic volumes on Saxa Road are shown in Figure 2.5, while average hourly traffic volumes are shown in Figure 2.6. Table 2.3 presents the highest hourly vehicle movements during the AM period and the PM period on weekdays and weekends.

Figure 2.5: Daily Traffic Volume on Saxa Road (2021)

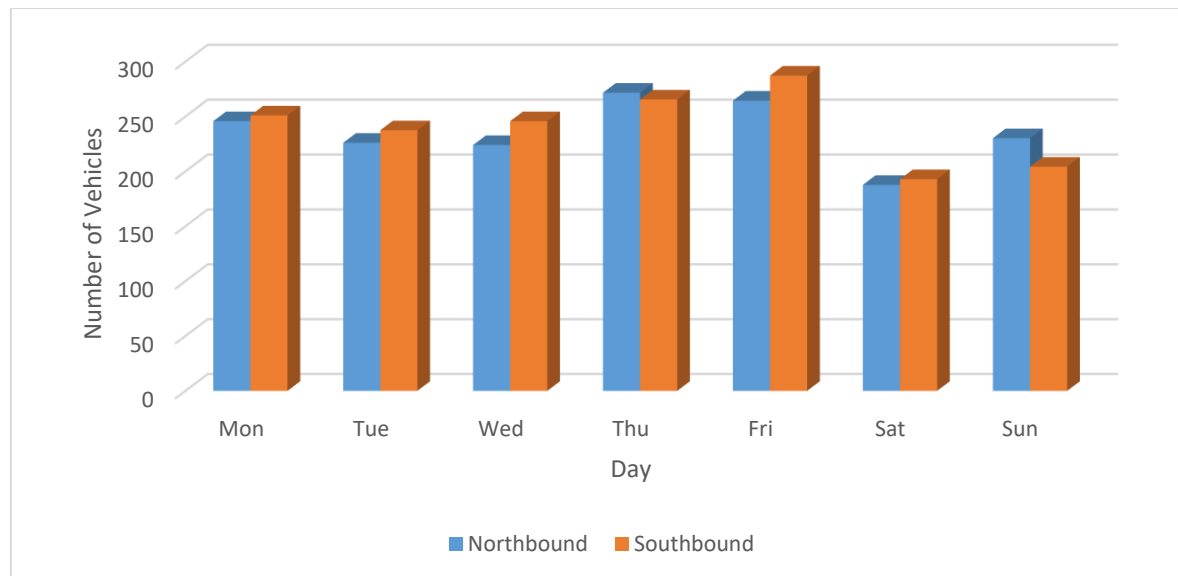


Figure 2.6: Average Hourly Traffic on Saxa Road (2021)

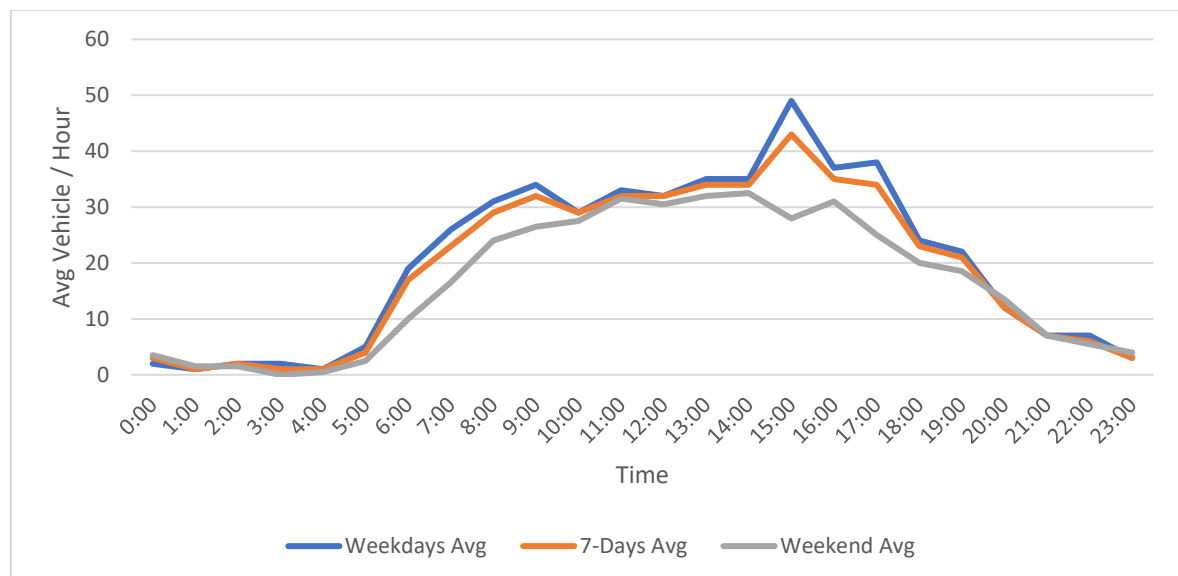


Table 2.3: Peak Hourly Traffic Volume on Saxa Road

Period	Peak Hourly Two-Way Traffic Volume (Vehicles per hour)
Weekdays AM Peak (09:00 - 10:00)	52
Weekdays PM Peak (15:00 - 16:00)	58
Weekend Peak (14:00 - 15:00)	40

Daily traffic volumes on Campbells Lane are shown in Figure 2.7, while average hourly traffic volumes are shown in Figure 2.8. Table 2.4 presents the highest hourly vehicle movements during the AM period and the PM period on weekdays and weekends.

Figure 2.7: Daily Traffic Volume on Campbells Lane (2021)

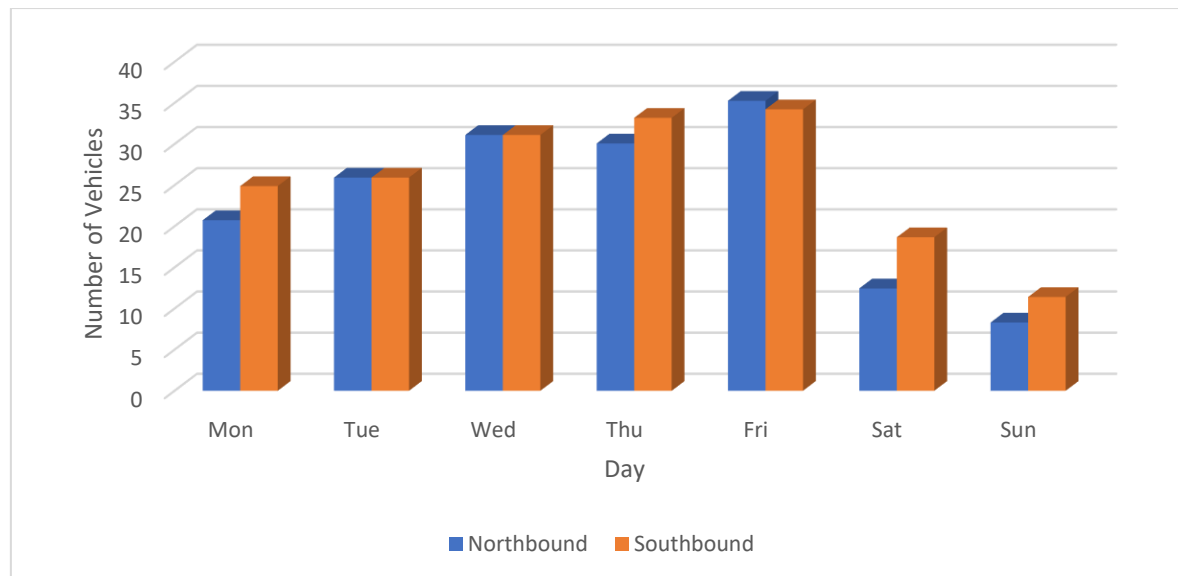


Figure 2.8: Average Hourly Traffic on Campbells Lane (2021)

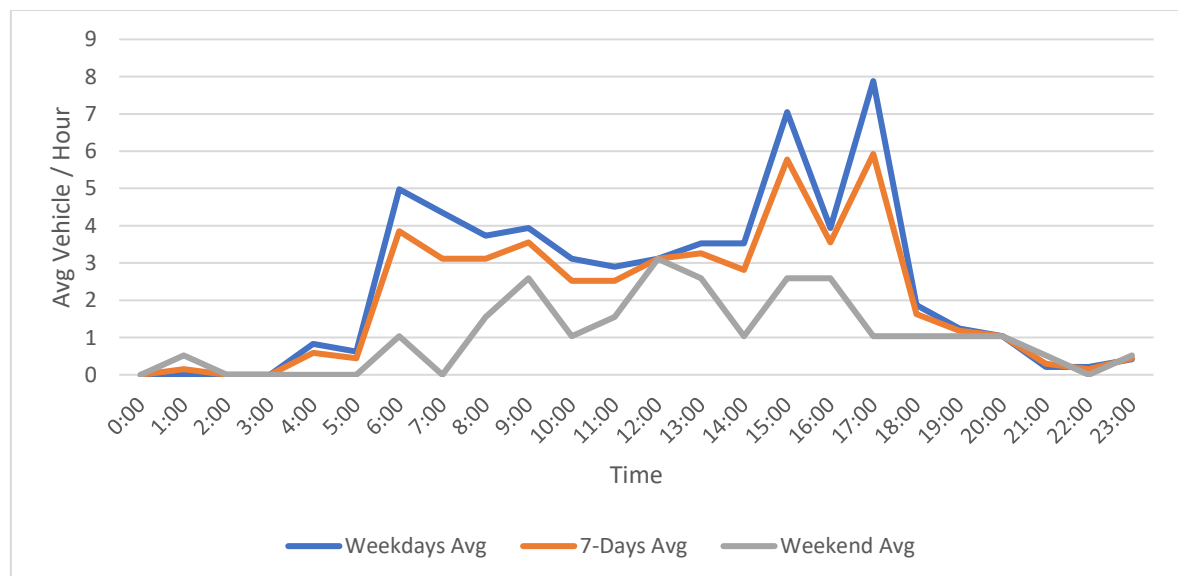


Table 2.4: Peak Hourly Traffic Volume on Campbells Lane

Period	Peak Hourly Two-Way Traffic Volume (Vehicles per hour)
Weekdays AM Peak (07:00 - 08:00)	10
Weekdays PM Peak (15:00 - 16:00)	11
Weekend Peak (12:00 - 13:00 and 13:00 - 14:00)	5

2.4 Pedestrian and Cyclist Facilities

Given the remote characteristics of the solar farm site location, there are currently no pedestrian and cycling facilities in the vicinity. This applies to all roads surrounding the development, including the site frontage road (Goolma Road), of which there are no footpaths and bicycle paths as shown in Figure 2.9.

The photograph of Goolma Road in Figure 2.9 is taken at the approximate location of the future development site access.

Figure 2.9: Goolma Road Street View (looking south)



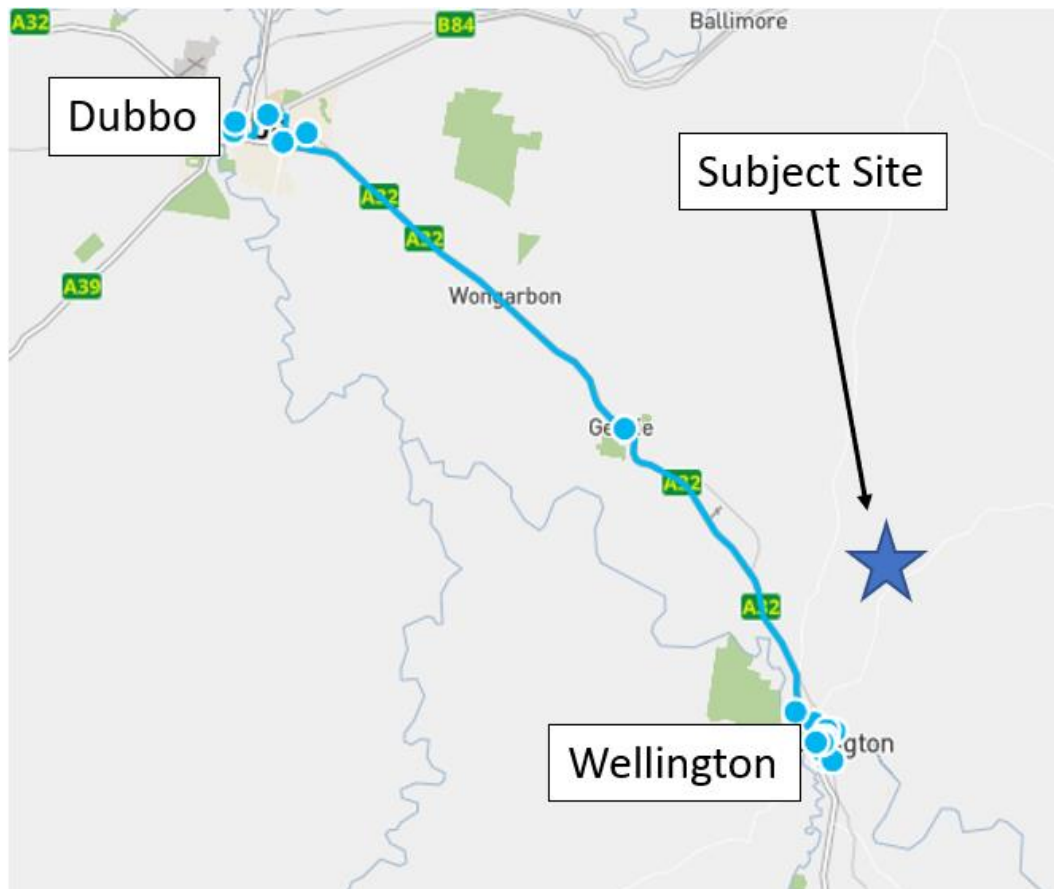
Source: The Transport Planning Partnership, photo taken 27 January 2022

2.5 Public Transport Services

Bus services for route 556 Wellington to Dubbo run along Mitchell Highway via Wellington Station. There are no bus routes that run directly to or close to the development. The nearest bus route to the development site is shown in Figure 2.10.

The nearest train station is Wellington Station, which is situated approximately 8 km from the development. Two train services run via Wellington Station between Central and Dubbo; namely, routes 427 and 428. Each service runs once per day, and is roughly a 6-hour journey from Central and 30-minute journey from Dubbo.

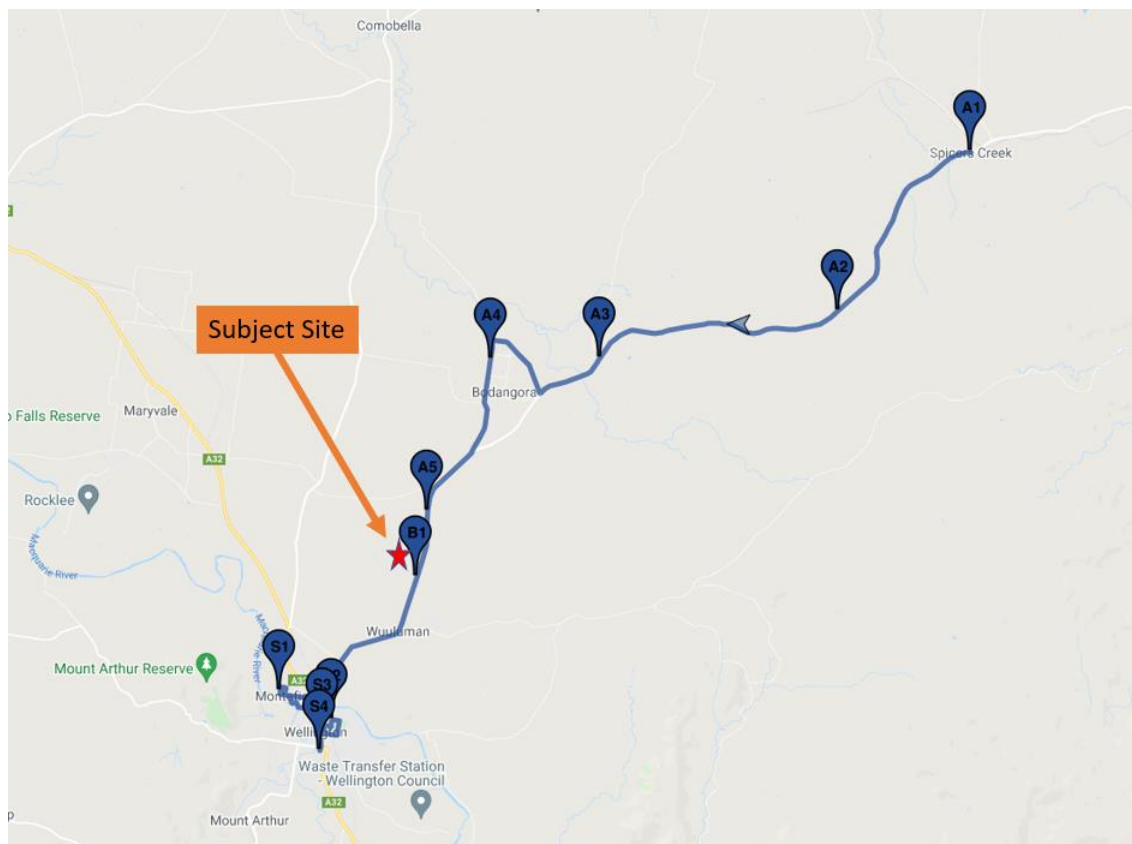
Figure 2.10: Bus Route 556 Wellington to Dubbo



Source: Transport for NSW, viewed online on 14/12/2021

School bus routes WA07-S106 and WP07-S106 utilise Goolma Road past the development site. The service, which is provided Ogden's Coaches, runs between Mt Bodangora and Wellington. There is one service per day for each school bus route. The school bus route via Goolma Road is illustrated in Figure 2.11, while a summary of the bus timetable for these routes is presented in Table 2.5.

Figure 2.11: Mt Bodangora (Spicers Creek) Bus Route



Source: Ogden's Coaches, viewed online on 02/01/2022

Table 2.5: School Bus Timetable

Bus Stop Location	WA07 – S106 (Morning Service)	WP07-S106 (Afternoon Service)
Wellington Public School	8:46am	3:07pm
Wellington High School	8:42am	3:20pm
St Mary's Catholic School	8:39am	3:24pm
Wellington Christian School	8:35am	3:30pm
Soil Research Station, Goolma Rd	8:30am	3:37pm
Cnr Goolma / Gladstone Rd	8:27am	3:40pm
Dick St, Mt Bodangora	8:20am	3:45pm
Cnr Goolma / Gillingall Rd	8:15am	3:50pm
Ahwahnee, Goolma Rd	8:10am	4:00pm
Cnr Goolma / Spicers Creek Rd	8:05am	4:05pm

2.6 Dilapidation Surveys

As required by Condition 7 (a) of the development consent an independent dilapidation survey will be conducted to assess the:

- existing condition of Goolma Road and Twelve Mile Road on the transport route, prior to construction, upgrading or decommissioning activities; and
- condition of Goolma Road and Twelve Mile Road on the transport route, following construction, upgrading or decommissioning activities;

As required by Condition 7 (b) of the development consent LSbp, or its nominated EPC contractor will repair Goolma Road and Twelve Mile Road on the transport route, if dilapidation surveys identify that the road/s have been damaged during construction, upgrading or decommissioning activities. This would occur in consultation with the relevant roads authority, and to the satisfaction of the Planning Secretary.

The 'Road Condition Assessment (Before Construction) - Wellington North Solar Farm' report, prepared for GRANSOLAR (by Rytenskild Traffic Engineering), and dated 11 October 2022, is provided in Appendix D of this TMP.

3 Proposed Construction Works

3.1 Description of Construction Activities

As permitted by the development consent, construction will consist of:

- Early Works: focusing on the road upgrades at the future site access off Goolma Road, required under Condition 6 of Schedule 3 of the development consent.
- Main Works: construction of the solar farm development on the site.

The early works and main works are composed of sub-activities, which can be carried out concurrently. However, it is likely that the road upgrade works will need to be completed for the following components to commence. Details for the sub-activities of the main works are provided herein.

3.1.1 Early Works – Construction Activities

This TMP is prepared in relation to the road upgrade activities on Goolma Road to establish the new site access to the development. To comply with the conditions of the development consent, these early works are limited to:

- road upgrade required under Condition 6 of Schedule 3 of the development consent.
- building/ road dilapidation surveys.
- vegetation buffer planting.
- installation of fencing.
- artefact survey and/or salvage.
- overhead line safety marking.
- geotechnical drilling.
- surveying.

The road upgrade is expected to provide a short Auxiliary Left-Turn (AUL) treatment northbound and Basic Right-Turn (BAR) treatment southbound, as per Condition 6 of Schedule 3 for the development consent. This road will be utilised by construction vehicles throughout the construction of the solar farm, and later, any vehicles accessing the solar farm during operation. The existing site entry point on Goolma Road (immediately south of the new site access) will be closed and the road reserve will be re-instated to match the surrounding roadside landform.

The location of the road upgrades (i.e. development site access) is shown in Figure 3.1. A concept drawing of the future intersection arrangement with AUL and BAR treatments is shown in Figure 3.2.

Early works are scheduled to commence at the end of Q1/ start of Q2 in 2022. The duration of the early works construction period will be approximately three (3) months. Early works will have a construction workforce of approximately 30 workers.

Temporary lane closures will be required to facilitate the road upgrade construction works on Goolma Road. Widening of the carriageway to provide AUL and BAR treatments would be staged to enable general traffic flow along Goolma Road via a contra-flow arrangement.

During the daytime construction period, one traffic controller would manage traffic flow per direction.

During the nighttime period when construction works have ceased yet the works area arrangement is still in place, temporary traffic control signals would be in place to manage traffic under a contra-flow arrangement.

Site-specific traffic control plans (TCP) have been prepared for daytime and nighttime periods showing the arrangement of traffic control devices during the construction period for the early works and main works (which are described in Section 3.1.2). TCPs are discussed in Chapter 5.

3.1.2 Main Works – Construction Activities

The main activities involved with the construction of the solar farm would include:

- Site establishment and enabling works including fencing, ground preparation, construction of the internal access tracks, preliminary civil works and drainage works.
- Installation of steel post and framing system for the solar panels.
- Installation of underground cabling and installation of power conversion (inverter) stations and footings
- Installation of solar panels
- construction of the operations and maintenance facility.
- construction of the on-site substation, transmission line and connection to TransGrid's Wellington substation.

It is expected that some of the above activities would occur concurrently.

Construction of the solar farm is estimated to commence at the end of Q2/ start of Q3 in 2022. The duration of the mains works construction period will be between 18-24 months, with a peak period of nine (9) months.

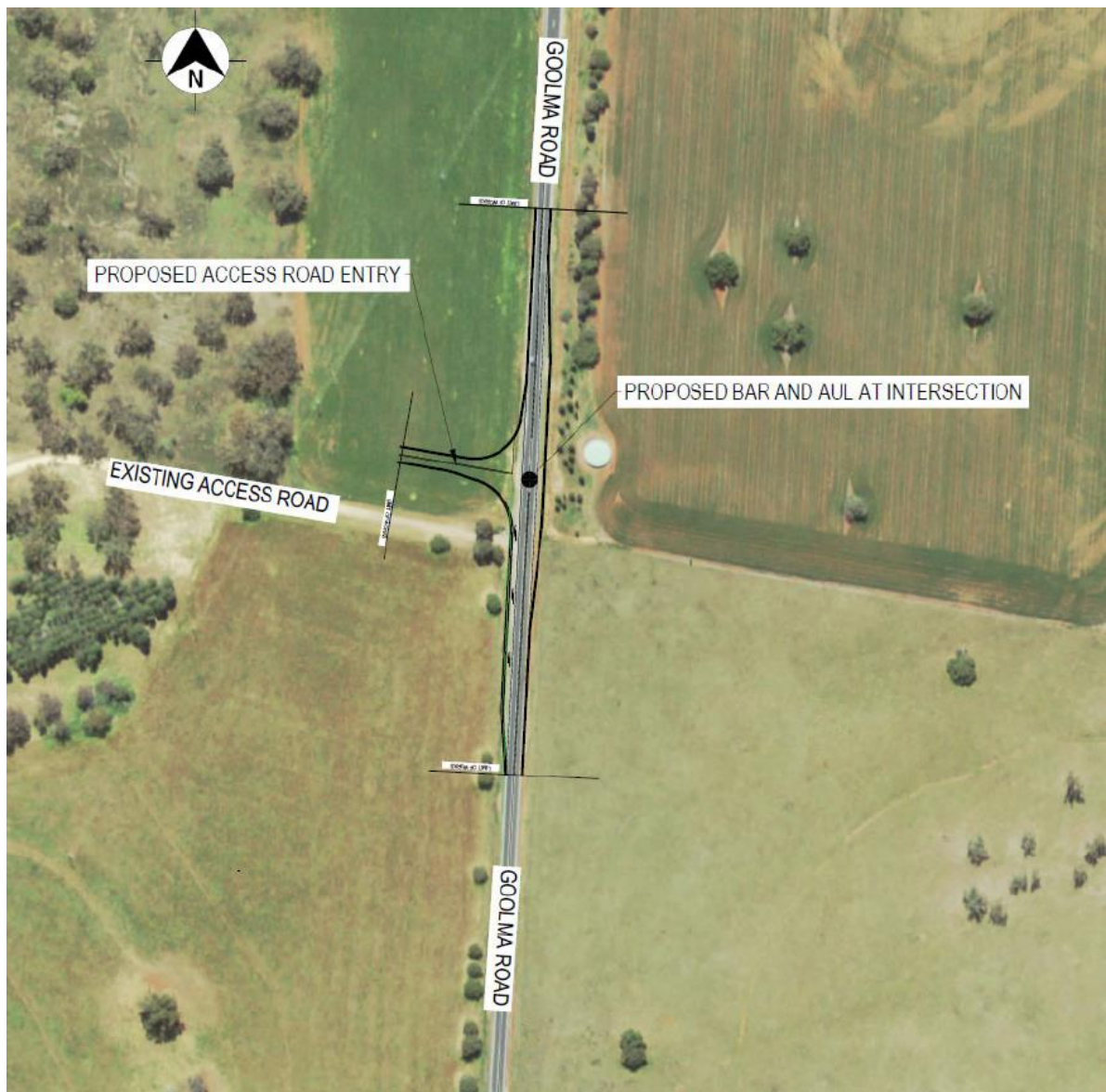
The development will generate around 400 direct full-time equivalent (FTE) jobs during construction (maximum of 250 at any one time) and 2-4 full time staff during the operation and maintenance phase. To provide a precautionary approach and align this TMP with the Traffic Impact Assessment (undertaken by GHD) it has assumed the development will have a worst-case construction workforce of approximately 400 workers during the peak period.

During the peak period, the development is expected to generate up to 267 two-way construction traffic movements, including 55 heavy vehicle movements, 80 shuttle bus movements (associated with worker transport) and 132 light vehicles movements.

There will be likely up two (2) oversize/ overmass (OSOM) vehicles that will be used during the construction period to transport large equipment and/ or machinery to the site. It is proposed that construction vehicles entering and exiting the site, including OSOM vehicles, would be recorded and managed by the EPC Site Manager and EPC Health, Safety and Environment (HSE) Coordinator.

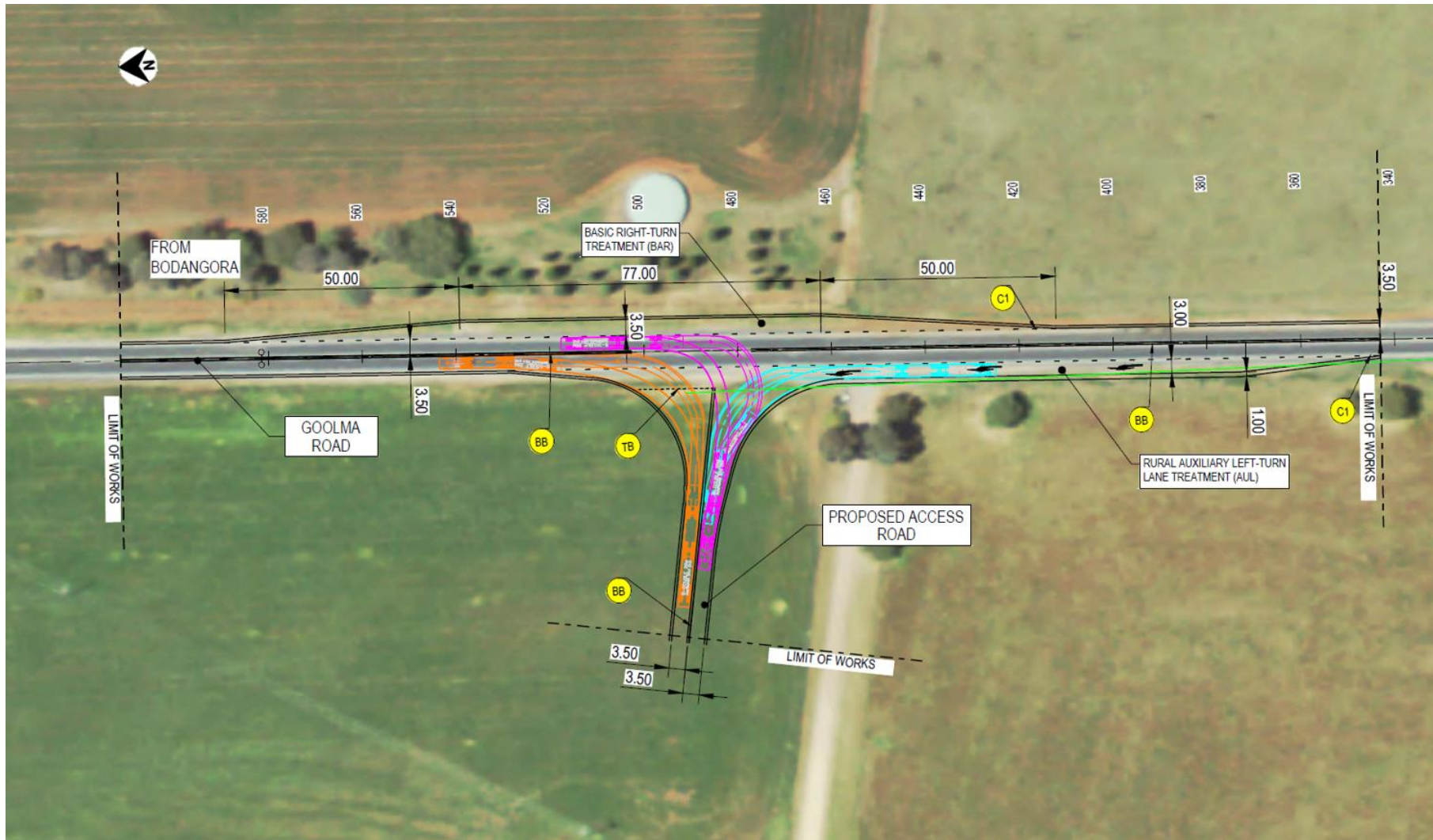
All vehicles will be loaded and unloaded on-site, and equipment and material would be stored on-site. There will be sufficient space on-site to accommodate heavy vehicle turning movements so that all vehicles enter and exit the site in a forward direction.

Figure 3.1: Location of Site Access Intersection Upgrade



Source: Wellington North Solar Plant – Traffic Impact Assessment: Goolma Road, GHD, dated 12 March 2021

Figure 3.2: Concept Drawing of Intersection Upgrade



Source: Wellington North Solar Plant – Traffic Impact Assessment: Goolma Road, GHD, dated 12 March 2021

A new transmission line is proposed to connect Wellington North Solar Farm to the TransGrid Wellington Substation. This is required to carry electric power from the solar farm to the main transmission grid, which is further distributed to consumers.

The substation is a key component of the solar farm as it converts the voltage level from low to high so that the electric power can be transmitted through the power line without significant energy loss. There will be two transformers located at the substation, which comprise an area of 2 ha.

3.2 Hours of Construction

As per Schedule 3, Condition 16 of the development consent, construction hours will generally be limited to:

- 7:00 am to 6:00 pm Monday to Friday.
- 8:00 am to 1:00 pm on Saturday.
- No works on Sundays or Public Holidays.

As per Condition 16, some activities may be undertaken outside these hours without the approval of the Planning Secretary, which include:

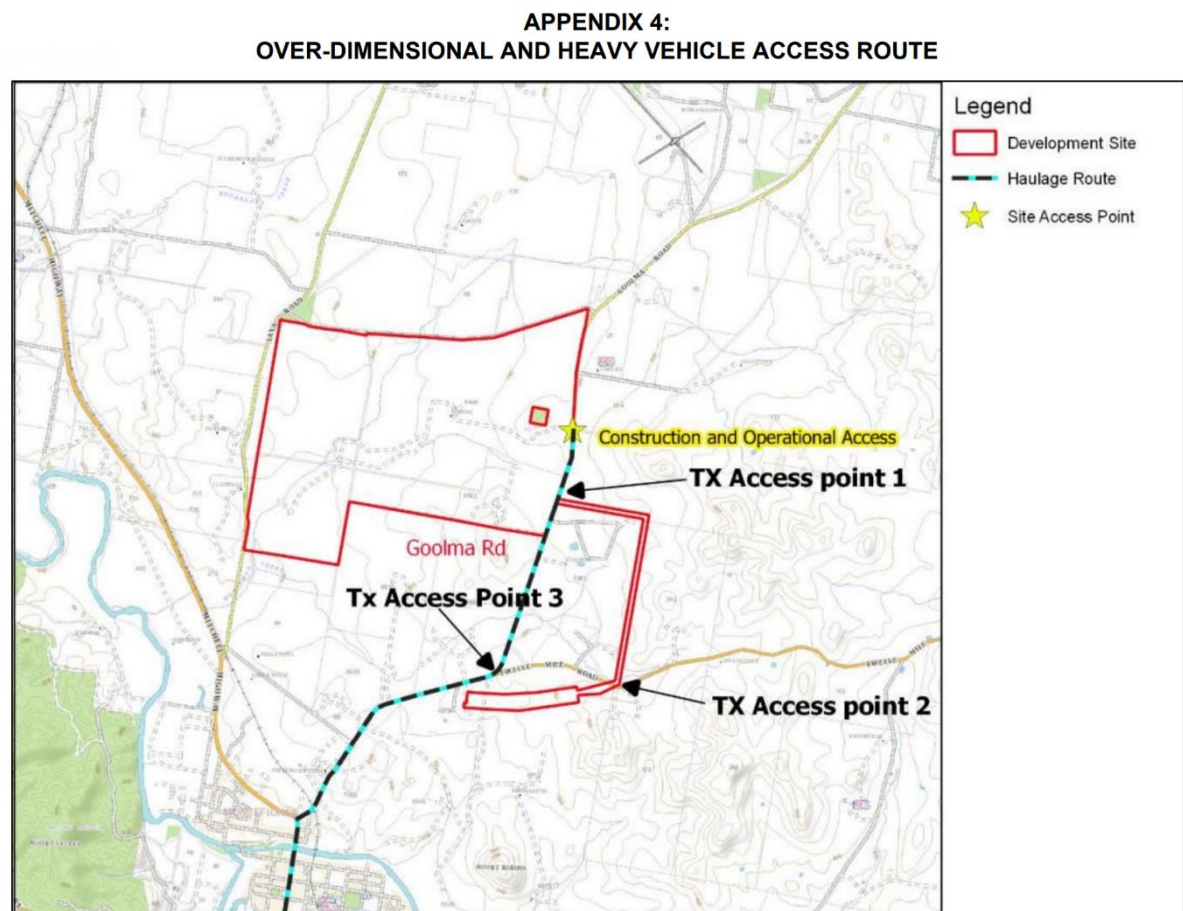
- Activities that are inaudible at non-associated receivers;
- The delivery of materials as requested by the NSW Police Force or other authorities for safety reasons; or
- Emergency work to avoid the loss of life, property and/or material harm to the environment.

3.3 Site Access

The development site will be mainly accessed via Goolma Road. In addition to the main access point on Goolma Road, the transmission line associated with the development will be accessed via the three points shown in Appendix 4 (Over-Dimensional and Heavy Vehicle Access Route) of the development consent, which has been reproduced in Figure 3.3.

During the construction period, implementation of measures such as rumble grids would occur at the site access points to minimise dirt tracked onto the public road network from construction vehicles. This would be the responsibility of the EPC Site Manager and HSE Coordinator to implement during construction.

Figure 3.3: Site Access Locations



Source: Wellington North Development Consent, dated 21 April 2021

3.4 Construction Vehicle Transport Routes

3.4.1 Materials and Infrastructure Deliveries

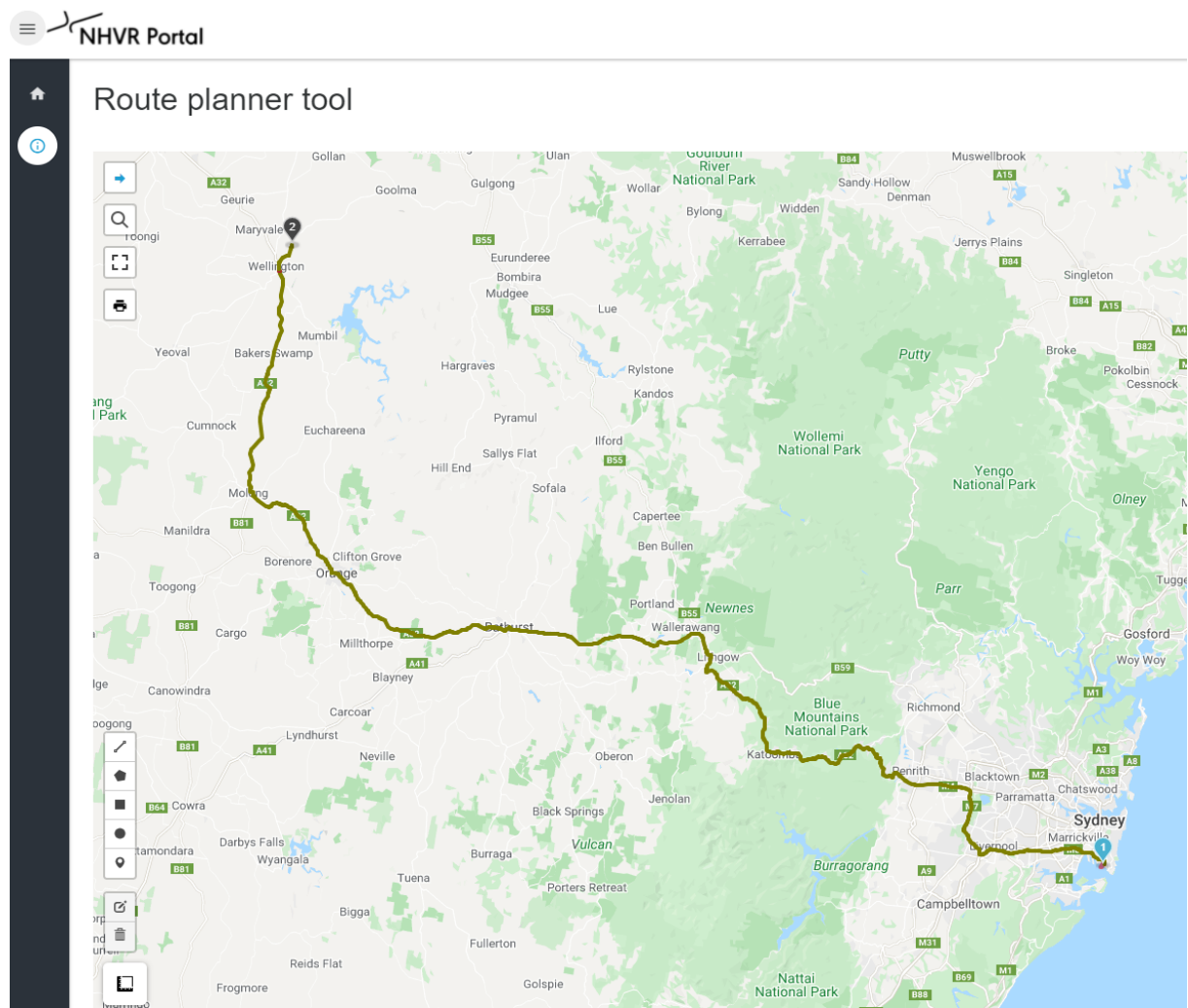
The vast majority of materials and deliveries will occur from the nearest major regional town centres, which in this case, are Dubbo and Orange. Heavy vehicles delivering materials and infrastructure to the development site will travel via Mitchell Highway and Goolma Road. Transport routes for the delivery of any bulky equipment and/or infrastructure may originate from either Port Botany or the Port of Newcastle.

Transport routes have been determined in-line with the National Heavy Vehicle Regulator (NHVR) Route Planner. NHVR is Australia's regulator for all heavy vehicles and provides an online journey planner tool used to identify the acceptable transport routes for various types of heavy vehicles.

According to NHVR, 19 m semi-trailers are permitted to travel between Port Botany and Wellington along the following route, as illustrated in Figure 3.4. This is assumed to be the longest vehicle that will be required for the construction activities. Vehicles exceeding this length will need approval from the Planning Secretary.

- Botany Road,
- M5 East and M5 Motorway,
- M7 Motorway,
- M4 Western Motorway,
- Great Western Motorway (Glenbrook and Bathurst),
- A32 Mitchell Highway (Orange and Wellington), and
- Goolma Road.

Figure 3.4: Port Botany to Wellington – 19 m Semi-trailer

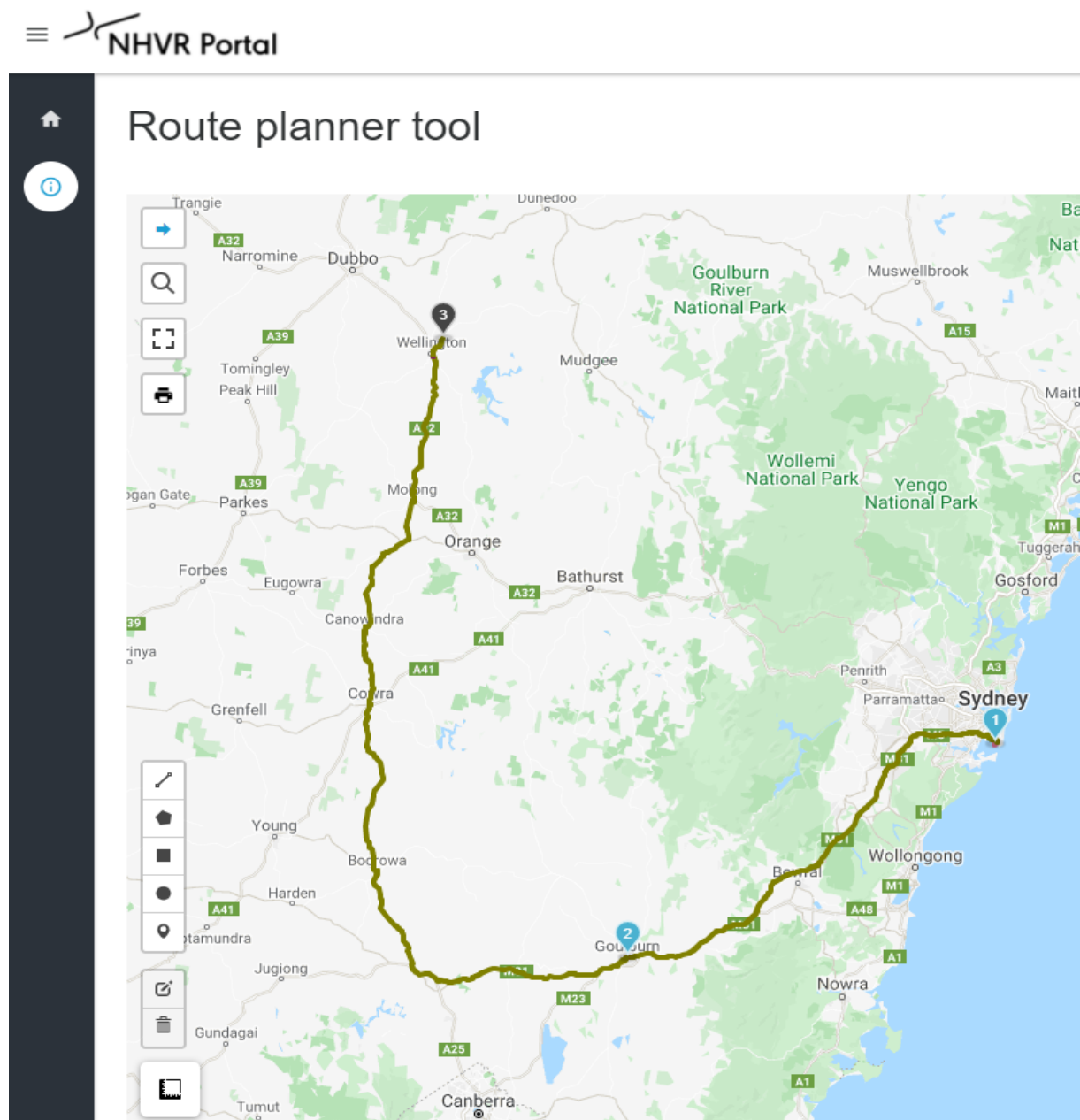


Source: National Heavy Vehicle Regulator (NHVR) Portal Route planner tool, accessed online on 14/12/2021

Should 25/26m B-doubles be required during the construction period, approval from the Planning Secretary would be sought by the EPC prior to their use. These vehicles would travel between Port Botany and Wellington via Goulburn and Boorowa via the NHVR- approved route below and as illustrated in Figure 3.5:

- Botany Road,
- M5 East and M5 Motorway,
- South Western Motorway,
- Great Western Motorway,
- M31 Hume Highway (Glenfield, Goulburn to Yass),
- B81 Lachlan Valley Way (Yass to Cowra),
- Canowindra Road (Cowra to Cudal)
- The Escort Way,
- Peabody Road,
- A32 Mitchell Highway (Molong to Wellington), and
- Goolma Road.

Figure 3.5: Port Botany to Wellington – 25/26 m B-Double



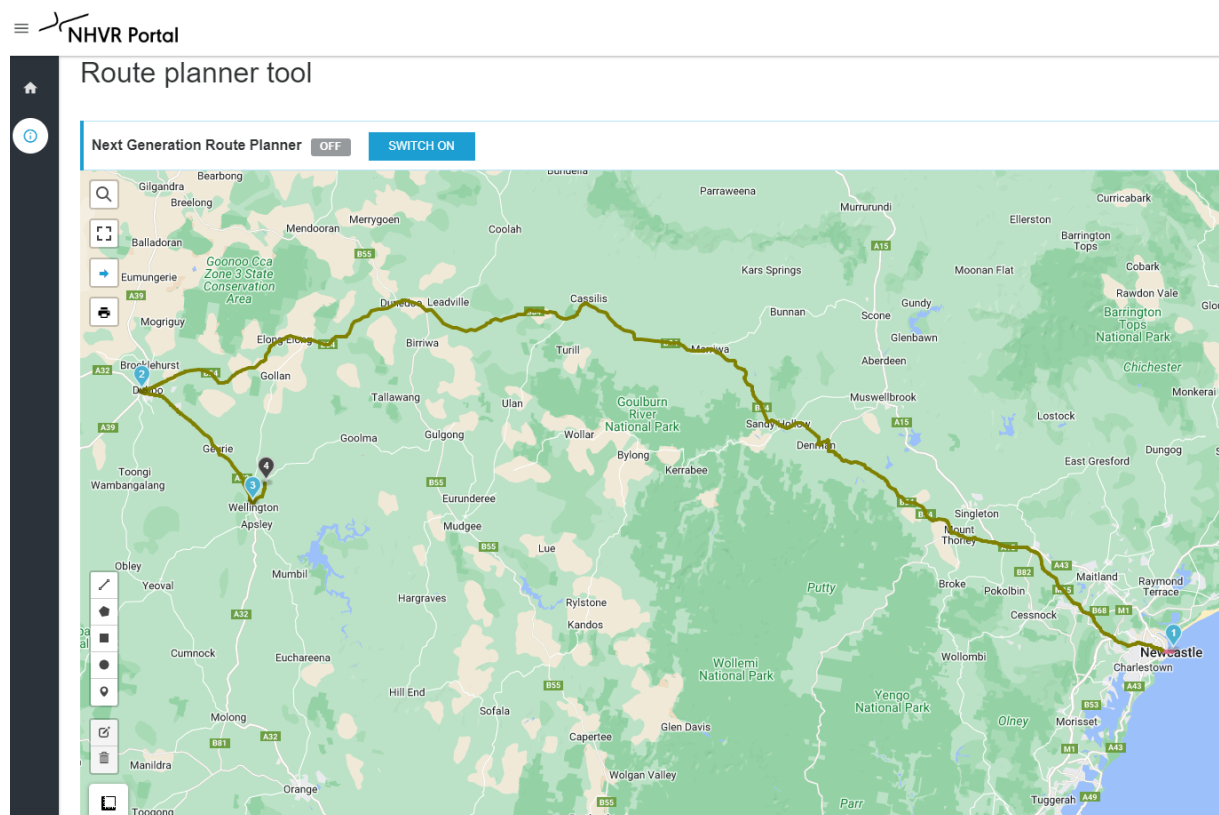
Source: National Heavy Vehicle Regulator (NHVR) Portal Route planner tool, accessed online on 14/12/2021

According to NHVR and in consultation with Council, 19 m semi-trailers are permitted to travel between Port of Newcastle and Wellington along the following route, as illustrated in Figure 3.6.

- Cowper Street North,
- Hannell Street,
- Hunter Street,
- Pacific Highway,
- Selma Street,
- Donald Street,
- Griffiths Road,
- Newcastle Road,
- Newcastle Link Road,
- Hunter Expressway,
- Golden Highway/ Dunedoo Road/ Cobbora Road,
- Victoria Street/ L.H Ford Bridge,
- Cobra Street/ Wellington Road/ Mitchell Highway, and
- Goolma Road.

The access route for the 25/26 m B-double is the same as the 19 m semi-trailer as shown in Figure 3.6.

Figure 3.6: Port of Newcastle to Wellington – 19 m Semi-trailer & 25/26 B-Double



Source: National Heavy Vehicle Regulator (NHVR) Portal Route planner tool, accessed online on 10/10/2022

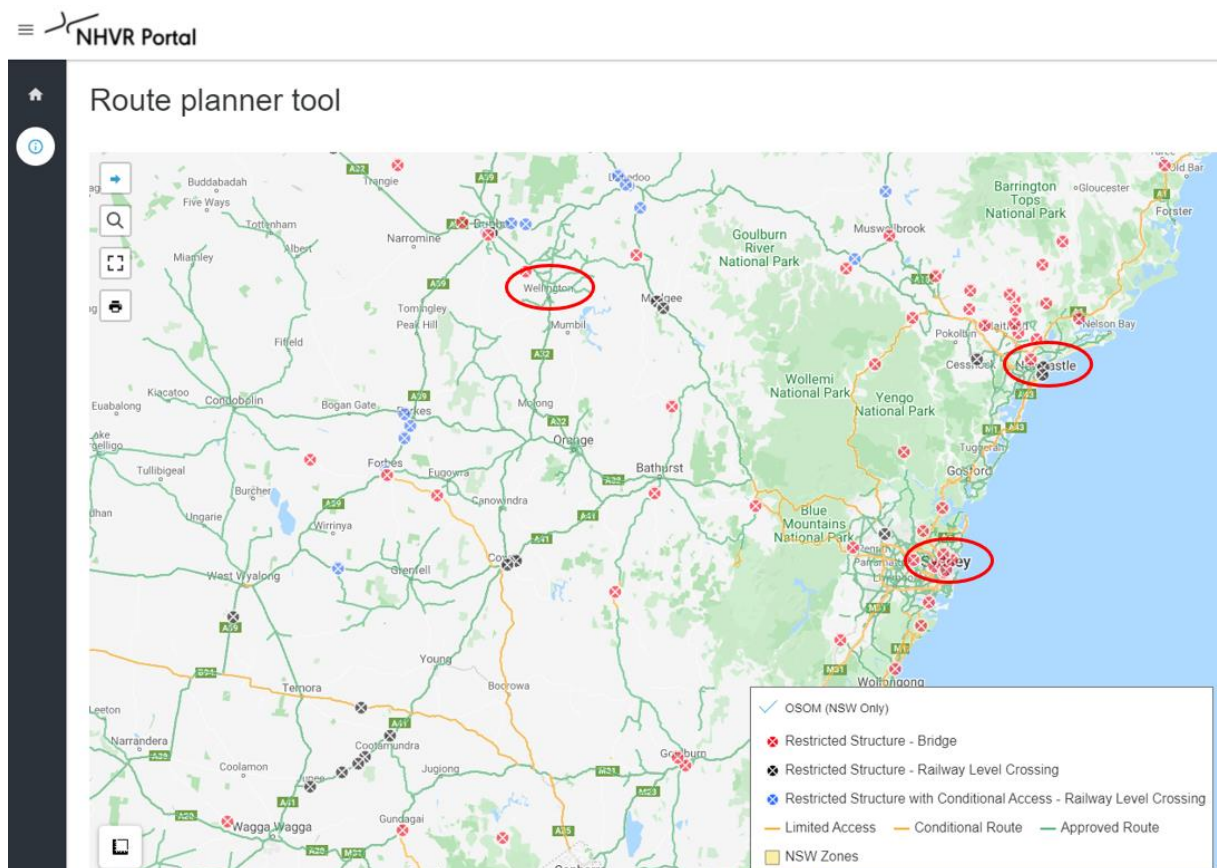
3.4.2 Oversize/ Overmass Vehicles

Large deliveries could be expected as part of the construction works. For example, the substation is likely to be delivered as a single unit, which would require an oversize/ oversize (OSOM) vehicle for transportation of the unit. According to the Class 1 Notice, Ministerial Order is required for OSOM vehicles to travel throughout the NSW road network.

Depending on the dimensions of the OSOM vehicle and the travel conditions, a pilot vehicle and escort vehicle may be required. Whether pilot vehicles and escort vehicles are required will be determined once details of any oversize/ overmass development infrastructure is known. Based on this information available at the time this TMP was prepared, confirmation of pilot vehicle and escort vehicle requirements cannot be confirmed, but these management measures will be implemented by the EPC Contractor prior to any OSOM vehicles travelling to the development.

Between Port Botany and Wellington, OSOM vehicles are permitted to travel via the same route as the 19 m semi-trailer. Between Port of Newcastle and Wellington, OSOM vehicles are permitted to travel via the same route as the 19 m semi-trailer and 25/26 m B-double. However, there may be limited access along these routes depending on the specifications of the OSOM vehicle. The OSOM network is shown in Figure 3.7. Further detail of the OSOM vehicle specifications and proposed route would be provided at the time of applying for a OSOM permit with NHVR.

Figure 3.7: OSOM Network Map



Source: National Heavy Vehicle Regulator (NHVR) Portal Route planner tool, accessed online on 27/01/2022

Prior to any OSOM vehicles travelling to the development, the EPC Contractor will assess the loads and dimensional requirements, and if they are deemed to be oversize or over mass, conduct a review of all NHVR regulations in conjunction with Council/ TfNSW regulations and request all necessary approvals and permits, as required.

The different types of OSOM permits and links to the permit application portal can be found on the TfNSW website via link below:

<https://roads-waterways.transport.nsw.gov.au/business-industry/heavy-vehicles/road-access/restricted-access-vehicles/oversize-overmass/index.html>

3.5 Staff Transportation

The development will generate around 400 direct full-time equivalent (FTE) jobs during construction (maximum of 250 at any one time) and 2-4 full time staff during the operation and maintenance phase. To provide a precautionary approach and align this TMP with the Traffic Impact Assessment (undertaken by GHD) it has assumed the development will have a worst-case construction workforce of approximately 400 workers during the peak period.

Further information regarding the construction workforce is detailed within the Accommodation and Employment Strategy (AES) prepared for the development to meet the requirements of Condition 31 within Schedule 3 of the development consent. The AES outlines an approach for the management of impacts and opportunities associated with the construction and operation of the Wellington North Solar Farm, specifically as they relate to accommodation and employment.

As outlined in the AES the development will prioritise clusters of accommodation in Wellington and Dubbo (Tier One) and Orange (Tier Two) to minimise traffic impacts. The AES also commits to the prioritised use of local accommodation within approximately 75 minutes-drive from the development.

A shuttle bus system will be provided to transport workers to/from Wellington. The shuttle would serve up to 80% of the peak workforce. The remaining 20% of the peak workforce is anticipated travel to/from the site by private vehicle.

Similar to the arrangement for the Wellington Solar Farm project, it is proposed that temporary construction staff parking is to be located at Market Square on the corner of Gisborne Street and Raymond Street in Wellington. Parking would be located on the grassed area of the park itself. The pick-up/ drop-off point for this location will be determined in consultation with Council prior to use. Market Square and the surrounding road network is shown (area within red boundary line) in Figure 3.8 below.

At the time this TMP was prepared the LSbp EPC contractor had not engaged main subcontractors. Once the main subcontractors are finalised, the EPC contractor will coordinate with those subcontractors to establish targeted measures for encouraging use of the shuttle bus system and car-pooling, to ensure that the 80% commitment as detailed in the Traffic Impact Assessment (undertaken by GHD) and subsequent approvals documentation is met.

These targeted measures must be fit for purpose and adaptable for the potential participants, such that they cannot be determined prior to main subcontractor engagement. However, as a minimum they will include consideration for:

- Assistance to help match staff and employees and their destinations
- Consideration of benefits and incentives for shuttle bus and carpooling participants
- Regular discussion and reinforcement of shuttle bus and car pooling e.g. during tool box talks, to assist program participation.

Further information and management measures relating to this matter is provided within Section 5.5 of the TMP.

3.6 Construction Worker Parking

Car parking would be provided on-site and would accommodate 20% of the workforce who would travel to site by private vehicle, approximately 66 cars. All trips will be made via Goolma Road, and enter the development site via the new site access (to be constructed as part of the early works). The combination of the use of shuttle buses and carpooling will minimise traffic congestion on the surrounding road network during peak hour and reduce vehicle movements around the site.

4 Construction Traffic Impacts

4.1 Impacts on the Road Network

During the peak of construction, it is expected that the works would generate up to 267 two-way construction traffic movements per day, including:

- 132 light vehicle trips.
- 80 shuttle bus trips.
- 55 heavy vehicle trips.

Heavy vehicles would access the site during the hours of construction, namely, between 7am – 6pm Monday to Friday and 8am – 1pm on Saturday. On average, there would be in the order of five heavy vehicle movements (in and out trips) per hour.

The peak times for light vehicles and shuttle bus movements would be before the start of the work day and at the end of the work day when workers are arriving/ leaving the site. Generally, car and shuttle bus trips would occur within the 60-75 minute period before the start and after the end of the work day. An estimate of car and shuttle bus trips are presented below.

- Car trips:
 - 66 inbound car trips in the AM. On average, that is 1-2 cars entering the site every minute.
 - 66 outbound car trips in the PM. On average, that is 1-2 cars leaving the site every minute.
- Shuttle bus:
 - 20 inbound trips and 20 outbound trips in the AM. On average, that is one shuttle bus entering the site and leaving the site every 3 minutes.
 - 20 inbound trips and 20 outbound trips in the PM. On average, that is one shuttle bus entering the site and leaving the site every 3 minutes.

Construction would result in a greater number of vehicles on the road network for the period of the works. However, the volume of construction vehicles is expected to cause no material impacts to road network capacity, intersection performance, and road safety. Furthermore, the number of car trips to the site would be reduced significantly because of the shuttle bus service which will be offered between the site and Wellington. This is consistent with the construction traffic impacts assessment reported in the Traffic Impact Assessment undertaken by GHD for the development.

4.1.1 Uungula Wind Farm

The commencement of construction works associated with the Uungula Wind Farm (and associated construction traffic) is expected to coincide with construction of the development. Accordingly, and to support the development of this TMP, LSbp is consulting with CWP Renewables (the developer of Uungula Wind Farm) to assist in the management of key road usage activities, such as over-dimensional vehicle access and larger scale equipment deliveries, and timing of the Goolma Road and Twelve Mile Road intersection upgrade. The information received by LSbp from CWP to date indicates that the Uungula Wind Farm construction would be commencing in December 2022, about a month after that of the development. CWP stated that, consistent with its consolidated development consent its first works will be the upgrade of Twelve Mile Road (western end into its project entry) and shift of the Goolma Road intersection north. CWP indicated that starting with roadworks will likely mean a smaller workforce than the anticipated peak construction workforce. Confirmed vehicle movements to and from its site were not available at the time but CWP indicated, 30-50 people would be accessing the site at the first stage of its construction. This indicates that the earlier phases of construction (i.e. site access establishment and intersection upgrades) for both projects will overlap. Transmission line construction associated with the development (which closest to the Goolma Road and Twelve Mile Road intersection upgrade) are unlikely to overlap with Uungula Wind Farm works, as the developments transmission line will be constructed during the latter stages of construction works. These features have been considered in the development of this TMP.

Specific information from CWP regarding the arrival and departure of OSOM vehicles (which are anticipated at later stages of its construction) was not available. A comparison of primary routes occurred (see Figure 4.1 to Figure 4.3 showing extract from the Uungula Wind Farm consolidated development consent) and identified the routes presented in this TMP differ to those in the Uungula Wind Farm, in that CWP propose to use a northern approach only whilst OSOM deliveries for the development will utilise a southern and northern approach. The northern approach for both projects will utilise the Mitchell Highway, and interactions on Goolma Road are also anticipated, which will be a key focus for managing potential cumulative impacts associated with OSOM vehicles during the construction.

As a result of this initial consultation with CWP and the information available it is evident that further consultation is required as vehicle (including OSOM) requirements for both projects become better understood. LSbp (and it's nominated EPC contractor) is committed to this occurring and will consult with CWP monthly for the first six (6) months of construction, and then as required for the remainder of works. This consultation will focus on any changes to primary transportation routes, site access and egress points, scheduling (including road and intersection upgrade works), and will also consider staggering OSOM movements (with respect to CWP OSOM movements). LSbp is committed to ensuring this consultation occurs and can adapt its traffic management practices, when sufficient information to do so is available, and as far as is reasonably practicable.

Figure 4.1: Ungula Wind Farm Road Upgrades Summary

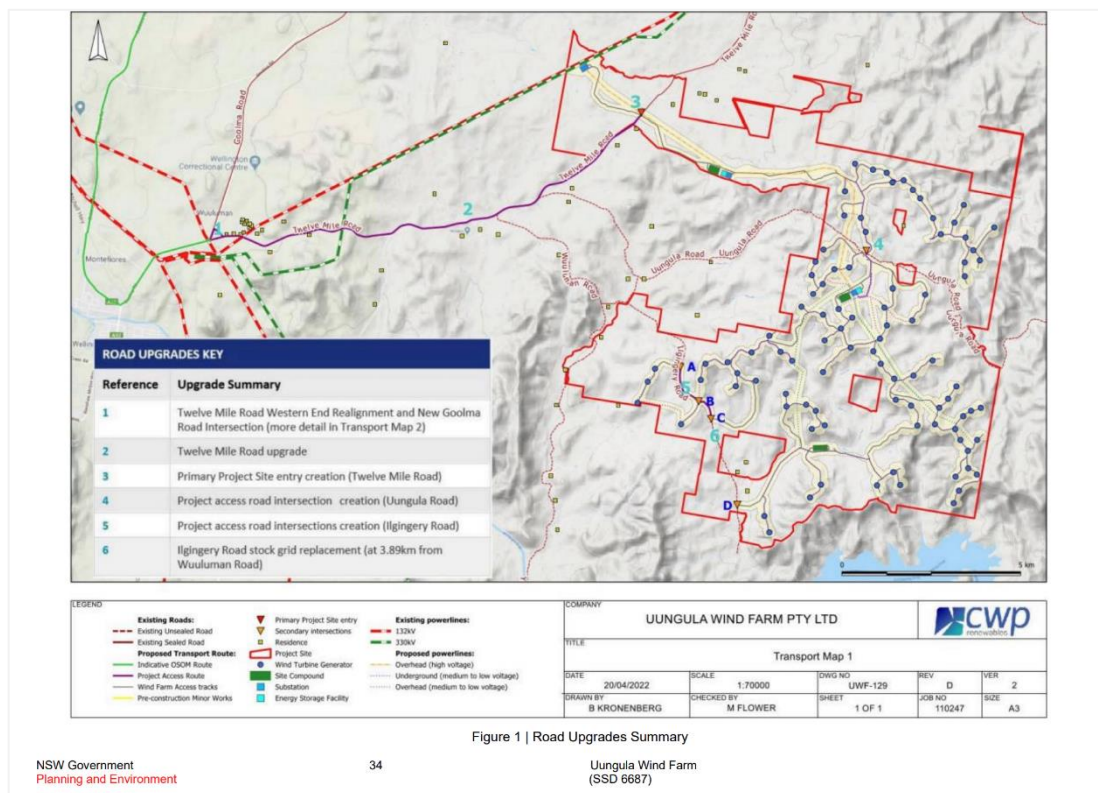


Figure 4.2: Ungula Wind Farm Road Realignments and Intersection

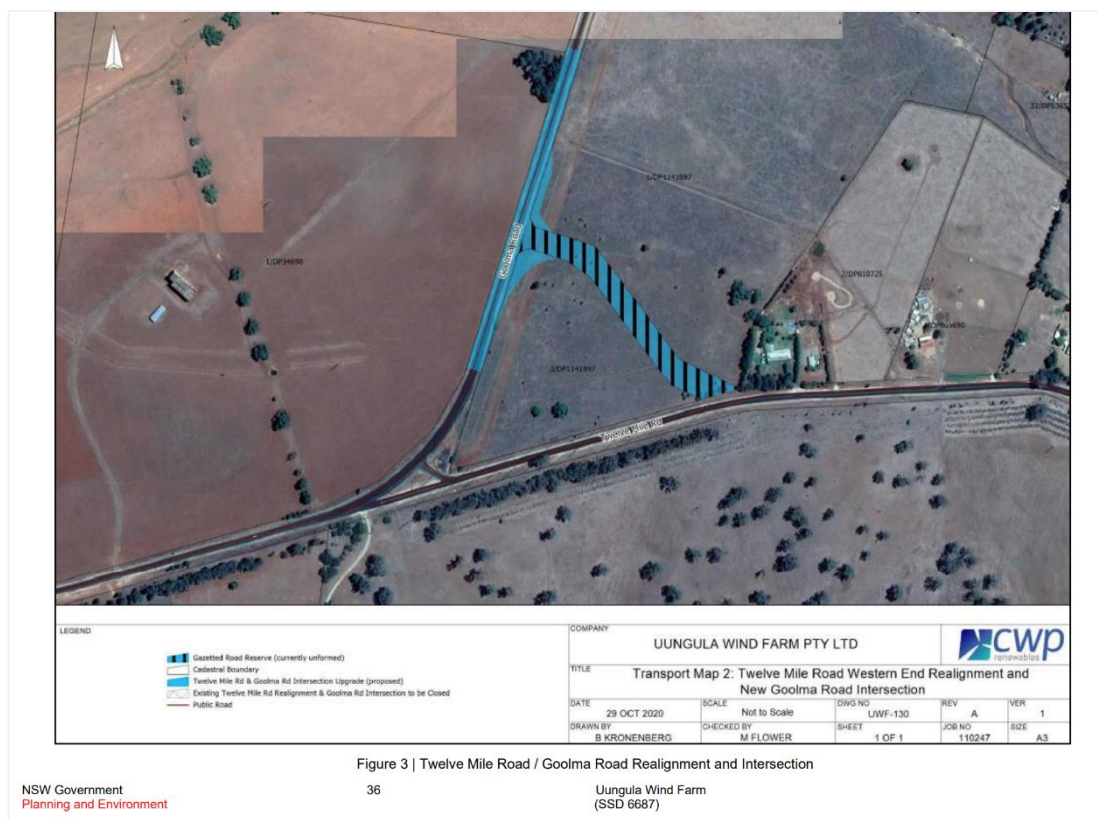
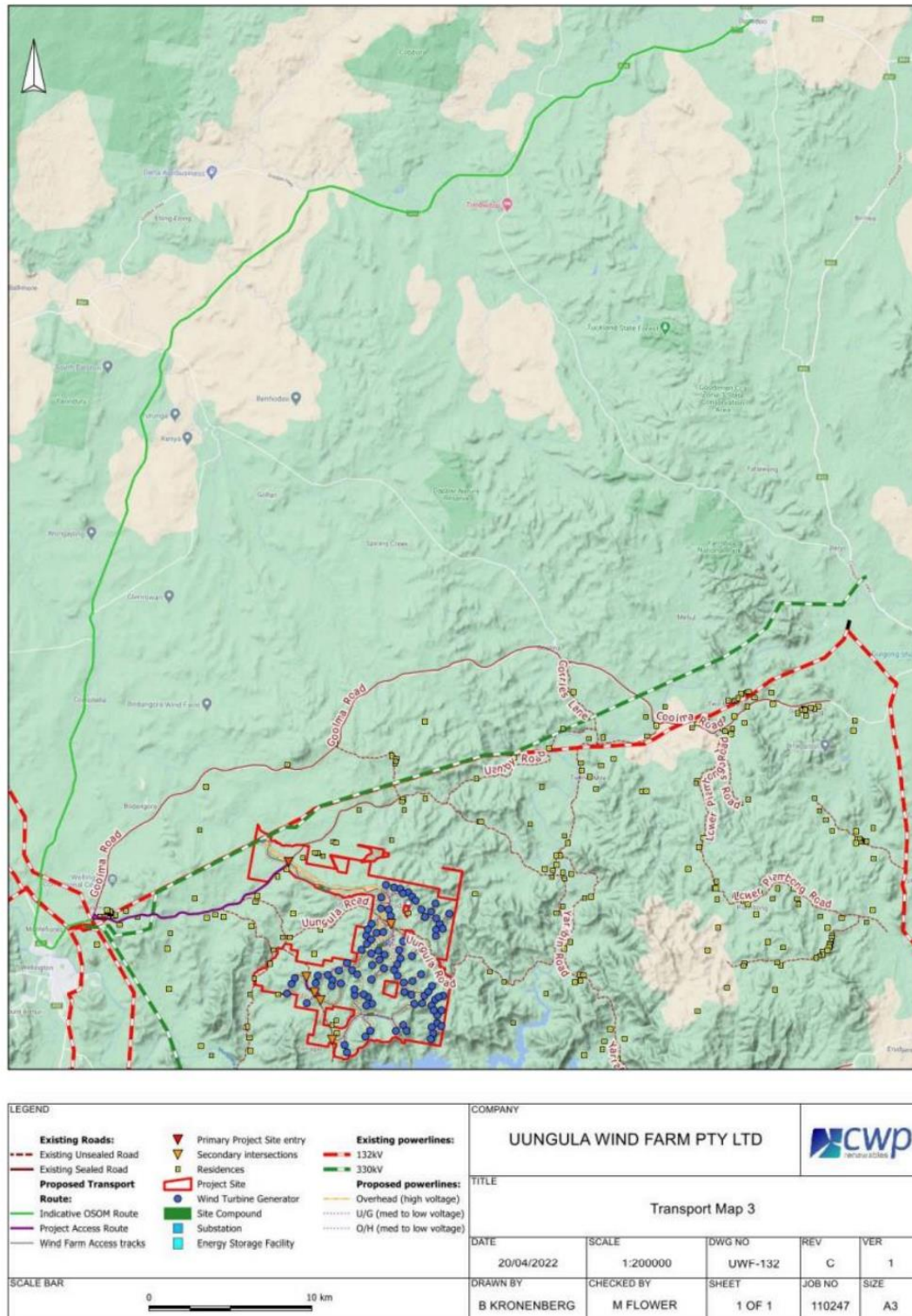


Figure 4.3: Ungula Wind Farm OSOM Access Routes

APPENDIX 8 OVER-DIMENSIONAL ACCESS ROUTE RESTRICTIONS



Furthermore, and as required by condition 9(d) of Schedule 3 within the development consent, cumulative impacts associated with any upgrading and decommissioning works will be managed via consultation between LSbp (and/or the EPC Site Manager) and the wind farm proponent i.e. CWP Renewables. This would focus again on the likely timing overlap for key road usage activities, such as over-dimensional vehicle access and larger scale equipment deliveries. However, for upgrading and decommissioning works the Goolma Road - Twelve Mile Road intersection upgrade will have been completed by the Ungula wind farm proponent.

4.2 Impacts on Pedestrians and Cyclists

Pedestrian and cyclist activity in the site vicinity is very minimal. Therefore, the impact of construction traffic would be negligible to pedestrians and cyclists in the area. Nonetheless, construction personnel must be observant of any pedestrians and/or cyclists while travelling to/from the site, especially while passing through any town centres along the transport route.

4.3 Impacts on Public Transport

The public bus network will not be impacted by construction activity given that the nearest bus stops and bus routes are roughly 8 km away from the site. As such, there would be minimal overlap of bus routes and construction transport routes.

Goolma Road is identified as a school bus route. Notwithstanding this, there are only two school bus services along this route; the service runs once in the morning and once in the afternoon. Given the low number of services, any impacts due to construction activities would be minor. As detailed in Chapter 5, measures will be implemented to control traffic and mitigate any potential negative impacts.

Given the variable nature of school bus routes and construction traffic peaks, the EPC Contractor would consult with local bus operators prior to the commencement of main works to understand school bus schedules and bus stop locations. LSbp's nominated EPC Contractor (GRS) shall consult with bus operator/s in early January 2023 (i.e. well prior to school term commencing 26 January) to identify local school bus routes based on student residences for that year. This information would be overlayed with the project construction transport routes and schedule. All existing TMP requirements relevant to bus route related aspects would then be implemented. This consultation would be repeated every year in January thereafter, during the construction period, to determine the common routes for that school year, to address any new safety concerns and propose any additional mitigation measures, if needed.

The main bus operator in the Wellington area is Ogden's Coaches, and GRS will consult Ogden's Coaches as a minimum. Following consultation between EPC and bus operators, the Driver Code of Conduct would be updated accordingly.

5 Construction Traffic Management Measures

5.1 Traffic Control Plans

Site-specific traffic control plans (TCP) have been prepared and included in Appendix A. A brief description of the TCP is provided below:

- Advisory road signage to be installed to inform motorists travelling on Goolma Road of roadworks ahead, speed reduction ahead, and construction vehicles turning into and out of the construction site access. This signage is to be erected on new signposts on approach to the works area for the duration of the road upgrade and solar farm construction works.
- During the daytime road upgrades construction period, one traffic controller would manage traffic flow per direction. During the night time period when construction works have ceased yet the works area arrangement is still in place, temporary traffic control signals would be in place to manage traffic under a contra-flow arrangement.

All advisory road signage shall be installed in accordance with *AS1742.3 Manual of uniform traffic control devices – Traffic control devices for works on roads* and *RMS Traffic Control at Worksites Manual*. Signs shall be installed and maintained throughout the construction period.

5.2 Site Induction

All staff employed on the site by the EPC Contractor would be required to undergo a site induction. The site induction would cover details on the nominated vehicle routes to and from the site, as well as standard environmental, workplace health and safety, driver protocols and emergency procedures.

Site induction and staff training pack would be developed and implemented for workers, vehicle drivers and sub-contractors who will enter the site.

Further information regarding training, awareness and competencies is also provided within Section 5.0 of the Environmental Management Strategy (EMS) prepared for the development as per the requirements of Condition 1 within Schedule 4 (SSD 8895).

5.3 Driver Code of Conduct

The Driver Code of Conduct specific to this site shall be included with all site inductions for all heavy vehicle drivers accessing the site. Prior to commencement of construction works, all drivers shall be provided with a copy of the Driver Code of Conduct. It is intended that all truck drivers would have signed the Driver Code of Conduct declaration and agreed to be bound by its behavioural requirements before entering the site.

The Driver Code of Conduct has been included in Appendix B, which could be developed further if required by the EPC Contractor.

5.4 Nominated Transport Routes

To minimise impacts on the road network, the following transport routes must be adhered to:

- The site induction must include procedures for construction vehicles accessing the site.
- Drivers must adhere to the nominated construction transport routes.
- Drivers must be aware of the local areas traffic, pedestrian, and cyclist activities.
- Drivers must be aware of school buses travelling along any common routes.
- Drivers should be aware of the local area speed limits.

Prior to OSOM movements, the EPC and/ or OSOM transportation provider will check the Live Traffic website to identify any issues that may impact their journey and contact on-site representative or the Customer & Network Operations Coordinator for the respective region (email cnc.north@transport.nsw.gov.au and cnc.west@transport.nsw.gov.au).

As outlined in Section 4.3, the EPC Contractor shall consult with bus operator/s in early January 2023 to identify local school bus routes based on student residences for that year. This information would be overlayed with the project construction transport routes and schedule. All existing TMP requirements relevant to bus route related aspects would then be implemented. This consultation would be repeated every year in January thereafter, during the construction period, to determine the common routes for that school year, to address any new safety concerns and propose any additional mitigation measures, if needed. Following consultation between EPC and bus operators, the Driver Code of Conduct would be updated accordingly.

Also, deliveries of material and/or equipment to the development site would be scheduled throughout the day to minimise heavy vehicle convoys along the transport route or platoons (closely spaced heavy vehicle arrivals) at the development site. This would be the responsibility of the EPC Site Manager and HSE Coordinator to implement during construction. The EPC would develop a schedule for the arrival of construction vehicles in conjunction with the fleet company to avoid travel in road network peak times and school pick-up and drop-off peak times. As consultation occurs with other nearby projects, notably the Ungula Wind

Farm (Section 4.1.1) and as community engagement occurs (Section 5.9), information will be provided on planned OSOM and night transport activities.

5.5 Construction Worker Trips

Measures would be implemented to reduce the number of car trips generated by workers and encourage carpooling amongst those who drive to site. The measures are as follows:

- Provision of a shuttle bus system to transport workers to/from Wellington. The shuttle would serve up to 80% of the peak workforce (which would be up to 400 workers during the main works period). The recently constructed Wellington Solar Farm (SSD- 8573) successfully implemented the shuttle bus system, and thus, it is proposed to adopt this as part of this development. Based on a carpool rate of 1.2 persons per car, the shuttle bus service would avoid having an additional 266 cars to the road network.
- The remaining 20% of the peak workforce is anticipated travel to/from the site by private vehicle. Car-pooling would be strongly encouraged amongst workers who travel from the surrounding towns. Adopting a carpool rate of 1.2 persons per car, there would be up to 66 additional cars on the road network during the peak of construction.
- Provision of a certain number of on-site car parking spaces, and frequently monitoring this day-to-day to identify whether increased parking demand has resulted from reduced usage of the shuttle bus service and/or carpooling.
- Information of the shuttle bus routes and pick-up/ drop-off times and locations would be provided in the staff induction pack to inform workers early in the construction timeline when workers are likely to be planning their method of transport to/from work.
- EPC Contractors to implement a car-pool networking scheme which identifies where contractors are travelling from/to and matches contractors living in the same part of town to travel together by carpooling. From this, a legible map be prepared indicating the general location of contractors which would be presented in several common areas, such as the daily sign-in desk and lunchroom. Regular reminders would be provided during tool-box talks and administrative staff meetings to observe the carpool network information, and seek out car-share options with colleagues.
- Secure storage would be available on-site to trades for safely storing tools/ equipment, which would otherwise necessitate a higher rate of workers driving to site.

Carpooling does occur by virtue of contractors residing in nearby locations within town, or surrounding towns as seen on other construction projects in regional towns such as in Orange.

Similar scale SSD construction projects (circa 200 construction workers) previously have been assessed and approved based on a carpool rate of 15% which is equivalent to 1 in 6 workers carpooling where measures for encouraging carpooling have not been implemented. Thus, for the development to have the above measures implemented, the carpool rate of 1 in 5 workers (i.e. 1.2 persons per car) is considered acceptable for this analysis.

5.6 Site Inspections and Record Keeping

Daily inspections before the start of the construction activity would be carried out by the EPC Site Manager or HSE Coordinator to ensure that conditions accord with those stipulated in the plan and prevent potential hazards. This includes maintained site accessibility and construction site operations, and the presence of traffic control signage and traffic controllers (as required by the TCPs). Any problems would be recorded and dealt with as they occur.

5.7 Contingency Plans

Unplanned incidents that may occur during construction works include, but are not limited to:

- Motor vehicle crashes.
- Environmental spills.
- Construction type incidents.
- Inclement weather conditions.

All issues associated with the incidents listed above would be reported to the EPC Site Manager who would inform the appropriate personnel and/ or authority.

An Emergency Plan (EP) has been prepared in line with Condition 29 within Schedule 3 of the development consent. The EP is the primary source of information for emergencies and emergency response procedures, and has been prepared to minimise the adverse impacts to people, property and the environment from an incident occurring or impacting on site during the construction, operational and decommissioning phases of the Development.

As relevant to this TMP, contact details for site personnel and relevant authorities responsible for controlling hazards/ emergencies are provided in Table 5.1.

Table 5.1: Emergency Authorities

Facility Incident	Role	Contact Details
All incidents	Chief Warden	Jerrad Archer (Development Manager) 0466 119 349
	Deputy Chief Warden	Arun Vijayakumar (Health, Safety and Environment Manager) 0426 763 590
	Warden	Sajid Mahmud (Asset Manager) 0426 155 457
	-	LSbp 24/7 Telephone Number 1300 166 716
Law enforcement, Emergencies	NSW Police	Wellington Police Station Address: 21 Maughan Street, Wellington NSW Phone: 02 6840 2099
Fire, Hazardous Material	Fire and Rescue NSW	Wellington Fire Station Address: 76 Warne Street, Wellington NSW Phone: 02 6845 2222

Table 5.2 outlines an action plan in respect to traffic management, which would be applied for these types of incidents.

Table 5.2: Contingency Plans

Potential Incident	Action Plan
Equipment Breakdown	Modify traffic control arrangement to accommodate equipment breakdown
Work Vehicle Breakdown	Construction Manager to call tow truck company. Cease work if necessary.
Poor Weather Conditions	Assess all possible risk / hazards, if necessary postpone and reprogram works. Continually monitor working and traffic conditions, and if necessary cease work.
Unplanned Incidents	Where possible, cease work. Modify traffic control and manage site until emergency services arrive. Support emergency services.

5.8 Complaints and Compliments Register

A complaints and feedback system will be established for the development. It will detail matters including complaints and compliments and be maintained by EPC Health, Safety and Environment (HSE) Coordinator. Details regarding the complaints procedure are provided within Section 6.3.1 of the EMS prepared for the development. As relevant to this TMP, the register shall be reviewed monthly to determine if any systematic issues are arising from the implementation of the CTMP and Driver Code of Conduct.

All complaints will be acknowledged (either by phone or email) within 24 hours. A written response will be provided for all complaints made in relation to the development. This response will summarise the outcomes of any investigation undertaken and a proposed action plan for addressing the concerns raised in the complaint.

Timeframes for responding to complaints will depend upon the nature and risk level of the issue raised and the need for detailed investigation.

All complaints will be collated and recorded in the feedback register published on the development website. The EPC Contractor or O&M Contractor (as relevant) will provide collated register of complaints to the LSbp Project Team on at least a monthly basis.

If a community member is not satisfied with LSbp's response to a complaint, the matter will be referred to an independent mediator for resolution. The selected mediator will be agreed by both parties.

5.9 Community Engagement

The implementation of a community information and awareness program about the planned construction, timing and transport routes will assist in managing local and regional road impacts. Significant disruption to local roads will be advertised in local media, via letters, online on the development website and using variable message signs prior to commencement of the disruptive activity.

LSbp has established a website for the development, in accordance with Condition 17 of Schedule 4 of the development consent. This website will be maintained over the life of the development and will be the principal source of information for the community. A link to the development website is provided below:

<https://www.lightsourcebp.com/au/projects/wellington-north-solar-farm/>

Local landholders directly impacted by road works and site construction works will be informed prior to the commencement of the construction work, including planned work that will disrupt property access, and management strategies.

The correctional facilities located directly east of the development, would be consulted to discuss whether any construction activities may be planned at the facility, and to provide the facility with a specific induction to relevant traffic impacts.

Consultation with Uungula Wind Farm project team would occur to discuss the timing of the projects, and to ensure cumulative impacts, if any, are managed to be maintained at a reasonable level.

Given the isolated rural location of the site, there is not likely to be any need for pedestrian or cycle access. However, the local media advertisements, and warning signs along public access routes advising of construction activity will ensure the safety of any pedestrians or cyclists in the area.

As noted above, further information regarding communication is also provided within Section 6.0 of the EMS.

6 Agency Consultation

At the early stages of the TMP preparation, verbal consultation occurred with TfNSW and Council to discuss general preferences regarding plan content and structure. A draft TMP was then submitted to:

- TfNSW for review on 10 March 2022 ; and
- Council for review on 10 March 2022.

TfNSW has provided verbal feedback on the TMP and specifically how TfNSW will provide further comments and assessment of the TMP.

Council provided email feedback to TTPP on the 29 March 2022.

The TfNSW and Council correspondence, and where this feedback has been addressed in this TMP, is documented in Table 6.1 and Table 6.2.

Table 6.1: TfNSW Consultation

ID	Comment	TfNSW Response
Microsoft Teams meeting held on 30 November 2021	TTPP presented intended TMP assessment process and enquired whether TfNSW had any specific queries to be assessed as part of the plan.	<p>TfNSW acknowledged the appropriateness of the TMP methodology proposed by TTPP.</p> <p>Points of note by TfNSW included:</p> <ul style="list-style-type: none"> ▪ a community communication/consultation plan would be required for the construction of the project. ▪ A Works Authorisation Deed (WAD) for works within the road reserve will be required prior to the commencement of construction activities within the road reserve. ▪ While TfNSW is the approval authority under the Roads Act, referral to and consultation with Council would be undertaken. ▪ TfNSW requested that any full road closure and detours to alternate routes be minimised to the greatest extent possible. Preference should be given to partial road closures, contraflow and traffic control.
Phone Correspondence 6 May 2022	<p>TTPP contacted TfNSW to ascertain if TfNSW wished to provide feedback on the draft TMP prior to TMP finalisation and submission to the Department of Planning and Environment.</p> <p>TTPP noted to TfNSW that LSbp was looking to formally lodge the final TMP to the Department of Planning and Environment (DPE) in May 2022. TTPP noted that the TMP to be submitted was essentially the same document as the draft TMP albeit with further clarification on OSOM routes in response to Council's comments.</p>	<p>TfNSW noted that they would continue with the review of the draft TMP and then review the final TMP as to be lodged with DPE.</p> <p>TfNSW will provide formal comments to DPE as part of the agency referral process.</p> <p>TfNSW stated that their review would include consideration of the consistency of the TMP with the EIS and consent conditions.</p>

ID	Comment	TfNSW Response
SSD-8895: Post Approval Review of Traffic Management Plan for Wellington North Solar Farm, 30 September 2022	<p>The TMP has been prepared to address the management of traffic associated with the construction of the new intersection access at Goolma Road (referred to as "Early Works") and the construction of the solar farm infrastructure (referred to as "Main Works"). Management of road work construction traffic should be documented and considered by the independent verifier for the road work. Accordingly, the TMP should be updated to remove "early works" construction traffic management.</p>	<p>Early works refer to a range of activities, not just the road upgrades, hence the TMP continues to refer to early works.</p> <p>The TMP has however been updated to clarify that the road upgrades (and associated construction traffic) would be documented and considered by the independent verifier for the road work. The TMP also specifically states construction traffic management for road upgrades are beyond the scope of the plan, see Section 1.1.</p>
	<p>Section 2.3 Traffic Volumes acknowledges the main traffic generators in the vicinity of the site and subject development including background traffic associated with the correction centre and the Bodangora wind farm, and the construction traffic for Wellington Solar Farm. While the background traffic has been considered as part of the original Traffic Impact Assessment, and construction for Wellington Solar Farm is expected to have been completed by the commencement of the subject development, the commencement of the Uungula Wind Farm works and associated construction traffic is expected to coincide with the subject development. The proponent advises that they will consult with developer of Uungula Wind Farm (CWP Renewables) and LSbp (and/or the EPC Site Manager) to manage "key road usage activities, such as over-dimensional vehicle access and larger scale equipment deliveries and timing the Goolma Road - Twelve Mile Road intersection upgrade". TfNSW suggests that such consultation should have been carried out prior to the drafting of and addressed in the TMP to identify the impacts and ways the two developers will mitigate cumulative impacts (i.e. evidence of comparison of primary routes, schedules, agreements to stagger OSOM movements, etc.).</p>	<p>Description of consultation and cumulative projects impacts have been included in Section 4.1.1.</p>
	<p>TfNSW acknowledges the proponent has mapped the heavy vehicle routes using the National Heavy Vehicle Regulator (NHVR) website in Section 3.4 Construction Vehicle Transport Routes and intends to apply for NHVR permits as required. It is recommended that the TMP be amended to include a requirement for the operator to check the Live Traffic website to identify any roadwork sites that may impact their journey and contact on-site representative or the Customer & Network Operations Coordinator for the respective region (email, cnc.north@transport.nsw.gov.au and cnc.west@transport.nsw.gov.au) prior to OSOM movement.</p>	<p>This measure has been acknowledged and included in Section 5.4.</p>

ID	Comment	TfNSW Response
	<i>The TMP has not adequately addressed Condition 9d (point 5). While low number of school bus operations are apparent in the Wellington area, safety around school buses is important and should be appropriately addressed. The TMP should be updated to clarify if construction traffic peaks and school bus schedules overlap. Opportunities to avoid overlapping schedules for heavy vehicle transport during the scheduled school bus periods could be considered. In addition, the acknowledgement of the importance of being aware of the bus stop locations, children in the vicinity of the bus stops, giving way to buses (as appropriate) should be addressed in the Appendix B Driver Code of Conduct.</i>	Given the variable nature of school bus routes and construction traffic peaks, the EPC Contractor would consult with local bus operators prior to the commencement of main works to understand school bus schedules and bus stop locations, so construction vehicle drivers are aware of locations and know the appropriate driver behaviour that is required around school buses. Following consultation between EPC and bus operators, the Driver Code of Conduct would be updated accordingly. These commitments are provided within Section 4.3 and 5.4 of the TMP.
	<i>The TMP has not adequately addressed Condition 9d (point 7 and 8) as details have not been provided for the employee shuttle bus service, including pick-up and drop-off points and associated parking arrangements for workers, and measures to encourage shuttle bus usage, car-pooling or ride sharing. It is understood that the Workers / Drivers Site Induction and Training Programme to be developed by EPC HSE and Car-Pool Networking Scheme will contain this information however the details have not been provided in the TMP as required.</i>	Section 3.5 of the TMP has been revised to provide further information regarding temporary construction staff parking, proposed pick-up/ drop-off points and commitments for consultation. The focus of this TMP is to identify the objectives of the Plan. As such, this TMP provides a framework for the EPC to further detail the specifics of the measures which they would develop for the Workers / Drivers Site Induction and Training Programme. Notwithstanding this, measures to encourage shuttle bus usage and car-pooling have been provided in Section 3.5.1 and Section 5.5 of this TMP. It is noted that these schemes can only be prepared by the EPC and cannot be released publicly given potential sensitive information such as workers' names and town/ street of residence.
	<i>Fatigue management has not been addressed in either the TMP or Appendix B Driver Code of Conduct. Accordingly, it is recommended that the Driver Code of Conduct be updated to address driver fatigue, including (inter alia): fatigue symptom identification, responsibilities of drivers and management, and mitigation measures. In addition, a requirement to plan for stops prior to commencing a journey should be included by scheduling regular rest times based on the length of overall journey, the designated route, and rest area locations. A map of rest areas in NSW for both light and heavy vehicles can be found at: https://roads-waterways.transport.nsw.gov.au/roads/using-roads/trip-information/rest-areas/map/.</i>	This has been addressed in Section 2 of the Driver Code of Conduct that is within Appendix B of this TMP.
	<i>Appendix B Driver Code of Conduct has not adequately addressed Condition 3e (point 3) as the only reference to heavy vehicle transport routes is the identification of the Goolma access driveway as the main access / egress point. TfNSW suggests that the Driver Code of Conduct be updated to reference</i>	This has been addressed in Section 4 of the Driver Code of Conduct within Appendix B of this TMP.

ID	Comment	TfNSW Response
	<p>the need for heavy vehicle drivers to map their route prior to commencement of journey to ensure the route is consistent with the relevant heavy vehicle approvals (e.g. OSOM permit, NHVR approval, etc.). Reference to the approved heavy vehicle routes should also be provided along with illustrations / maps.</p>	
	<p>Condition 3e (point 4) has not been satisfactorily addressed. The Driver Code of Conduct should be expanded to address matters including (inter alia) safe driving practices like: noise management (brakes), minimum distance between vehicles, ensuring checks for vehicle / equipment quality before start of journey, observation of dispatch and product transportation scheduling.</p>	<p>This has been addressed in Section 5, 7 and 9 of the Driver Code of Conduct within Appendix B of this TMP.</p>
SSD-8895: Post Approval Review of Revised Traffic Management Plan for Wellington North Solar Farm, 14 November 2022	<p>TfNSW reiterates the advice previously provided in response to the initial TMP Review (TfNSW letter dated 30 September 2022) regarding the potential for overlapping schedules of the school bus/es and construction traffic, which should be addressed clearly in the Driver Code of Conduct (Appendix B). The TMP relies on this being undertaken as a later commitment by the EPC Contractor, prior to commencement of main works. TfNSW suggests that such consultation should occur well in advance of any commencement of works, to identify and address any safety issues and propose appropriate mitigation measures with sufficient lead time to ensure the safety of all road user's during any overlapping periods is addressed, in particular, the safety of school children on the roadside, waiting for their bus, boarding and/or alighting the bus/es.</p>	<p>A response was provided to TfNSW by email on 25 November 2022 stating that LSbp's nominated EPC contractor (GRS) commits to consult with bus operator/s in early January 2023 (i.e. well prior to school term commencing 27 January) to identify local school bus routes based on student residences for that year. This information would be overlayed with the project construction transport routes and schedule. All existing TMP requirements relevant to bus route related aspects would then be implemented. This consultation would be repeated every year in January thereafter, during the construction period, to determine the common routes for that school year, to address any new safety concerns and propose any additional mitigation measures, if needed.</p> <p>The main bus operator in the Wellington area is Ogden's Coaches, and GRS will consult Ogden's Coaches as a minimum. Following consultation between EPC and bus operators, the Driver Code of Conduct would be updated accordingly. These commitments are provided within Section 4.3 and 5.4 of the TMP.</p>
	<p>The TMP has been updated to include a weblink within the Driver Code of Conduct, Appendix B (Section 2.0) addressing Fatigue management to the Rest Areas Map supplied in the previous TfNSW response. It is noted however, that the further recommendations to also "address driver fatigue, including (inter alia): fatigue symptom identification, responsibilities of drivers and management, and mitigation measures" have not been addressed. The TMP states that the EPC Contractor / and or transportation provider will have a responsibility, and role in ensuring the relevant agreements are in place for each driver. Further consideration should be given to including a copy of an endorsed Fatigue</p>	<p>A response was provided to TfNSW by email on 25 November 2022 stating that the "Transport Compliance Management" Policy and "Chain of Responsibility and Driver Fatigue Management" Policy Statement documents for GRS' transportation provider (Seaway). TTPP believes that the policies provide adequate evidence that GRS/Seaway will manage driver fatigue comprehensively, in accordance with NHVR transportation regulations and in accordance with relevant OHS/WHs law. These Seaway documents are available to their drivers via its own internal systems and processes, and TTPP do not consider it necessary to append them to the TMP.</p>

ID	Comment	TfNSW Response
	<i>Management Plan (provided by the EPC Contractor / transportation provider) as an appendices to the Driver Code of Conduct, which drivers can refer to.</i>	
Phone Correspondence on 30 November 2022	<p>TTPP contacted TfNSW to close out TfNSW's responses as per the <i>SSD-8895: Post Approval Review of Revised Traffic Management Plan for Wellington North Solar Farm</i>, 14 November 2022.</p> <p>TfNSW stated that it is agreeable to the consultation with the school bus operator/s as proposed in the email correspondence, to be included as part of a new revision of the TMP.</p> <p>Also, TfNSW advised it would be agreeable to the TMP with the relevant policy documentation appended to the TMP.</p>	<p>The TMP has been updated to include commitments to consultation with the school bus operator/s. This revision of the TMP, V07, provides the commitments within Section 4.3 and 5.4.</p> <p>Also, the "Transport Compliance Management" Policy and "Chain of Responsibility and Driver Fatigue Management" Policy Statement documents for GRS' transportation provider (Seaway) have been included in Appendix E of the TMP.</p>

Table 6.2: Dubbo Regional Council Consultation

ID	Comment	Response
Telephone call with Luke Ryan, Manager Infrastructure Operations, in December 2022.	TTPP discussed intended TMP assessment process and enquired whether Council had any specific queries to be assessed as part of the plan.	<p>Council acknowledged the appropriateness of the TMP methodology proposed by TTPP.</p> <p>Also, Council noted that it would be consulted as a referral stakeholder by TfNSW as part of TMP approval and WAD process. Council would comment further at that stage.</p>
Email correspondence from Luke Ryan, 29 March 2022	<p><i>The vehicle movements for the construction phase shows heavy vehicles utilising Saxa and Bela Vista Road (page 26 and 27). These are roads under the control of Council. The preferred route for the heavy vehicles is along the Mitchell Highway through to Goolma Road rather than the short cut on local roads in this area to preserve the local road network which is requiring some attention.</i></p> <p><i>Also spreading the worker bus pickup and drop off points around Wellington is advised. Limited pickup points for previous developments has created issues for parking locals and residents with workers travelling to pick up points.</i></p>	The transport route from the Port of Newcastle (Figure 3.6) has been amended accordingly, avoiding Saxa Road and Bela Vista Road to Mitchell Road.
Email correspondence from Luke Ryan, 1 September 2022	<i>The vehicle movements for the construction phase shows heavy vehicles utilising Wheelers Lane (page 26 and 27). Wheelers Lane is currently experiencing defects and consideration would be required to be given to this. Would an alternate route utilising the State Road network be considered by turning left from the Golden Highway on to the Castlereagh Highway (eastern side of Dunedoo), continue through to</i>	<p>Regarding the OSOM transport route from Port of Newcastle (from the north of the site), the route via Dubbo in the TMP was proposed in accordance with the Traffic Report prepared by GHD which supported the EIS. The Traffic Report suggested a route via Golden Hwy – Cobbora Road (Cobbora Road being in Dubbo).</p> <p>As consulted with Council, another option via Dubbo avoiding Wheelers Lane would be to continue west on Dunedoo Road and</p>

ID	Comment	Response
	<i>Gulgong and turn right on to Goolma Road for movements from Newcastle. Google maps has this route at 109km and 1hr 12min compared to the route on page 26 of the report which is 146km and 1hr 36min.</i>	<p>turn left at Victoria Street/ L.H Ford Bridge at the traffic signals. This would be a more practical route compared to the suggested route via Gulgong as there is a turn required at the roundabout at Castlereagh Highway-Goolma Road (Gulgong) which could raise some concerns for long heavy vehicles.</p> <p>As per email correspondence dated 12 October 2022 Council is agreeable to the route via Victoria Street/ L.H Ford Bridge through Dubbo.</p> <p>Accordingly, Figure 3.6 and the associated route description has been updated.</p>
	<i>Also spreading the worker bus pickup and drop off points around Wellington is advised. Limited pickup points for previous developments has created parking issues for locals and residents with workers travelling to pick up points. Could the locations of the pickup and drop off points be provided.</i>	<p>Similar to the arrangement for the Wellington Solar Farm project, it is proposed that temporary construction staff parking is to be located at Market Square on the grassed area of the park itself. The pick-up/ drop-off point for this location will be determined in consultation with Council prior to use.</p> <p>Section 3.5 of this TMP has been updated to reflect this information.</p>
	<i>Also, could a copy of the dilapidation report mentioned on page 4 be forwarded to Council</i>	<p>Council was advised by email correspondence dated 5 October 2022, the dilapidation assessment is not yet complete. However, the Appendix D report was supplied on 20 October 2022 and was subsequently provided to Council.</p>

7 TMP Review and Improvement

Condition 2 of Schedule 4 of the development consent states the following:

"The Applicant must:

(a) update the strategies, plans or programs required under this consent to the satisfaction of the Planning Secretary prior to carrying out any upgrading or decommissioning activities on site; and

(b) review and, if necessary, revise the strategies, plans or programs required under this consent to the satisfaction of the Planning Secretary within 1 month of:

- o the submission of an incident notification under condition 7 of Schedule 4;*
- o the submission of an audit report under condition 11 or 13 of Schedule 4; or*
- o any modification to the conditions of this consent."*

Review of this TMP will be undertaken in accordance with Condition 2 of Schedule 4 of the development consent.

Review and improvement of this TMP will also be achieved through the ongoing evaluation of the development's performance as detailed within the EMS.

This TMP may need to be revised if the development's scope of works, or work methods, change, if the work methods are found to be ineffective, or if directed by the LSbp Principal. This will occur as needed and in accordance with the process outlined in the EMS. A copy of the updated TMP and changes will be distributed to all relevant stakeholders in accordance with the approved document control procedure identified in the EMS.

8 References

CWP Renewables 2021, *Year in Review*, viewed 10 January 2022,
<https://cwprenewables.com/news/year-in-review>.

Department of Planning, Infrastructure and Environment (DPIE) 2021, *Wellington North Solar Farm Development Consent*, Sydney.

GHD 2021, *Lightsource bp Wellington North Solar Project Development Traffic Impact Assessment*.

NGH Environmental 2020, *Wellington Solar Farm Traffic Management Plan*.

NVHR 2021, *Route Planner Tool*, viewed 10 January 2022,
<https://www.service.nhvr.gov.au/#page=informationHub/routePlannerTool>.

Umwelt 2021, *LSbp Post Approval – Project Description*.

Umwelt Post n.d., *LSbp Wellington North Solar Farm – Post Approvals - Proposal Terminology*.

Appendix A

Traffic Control Plan

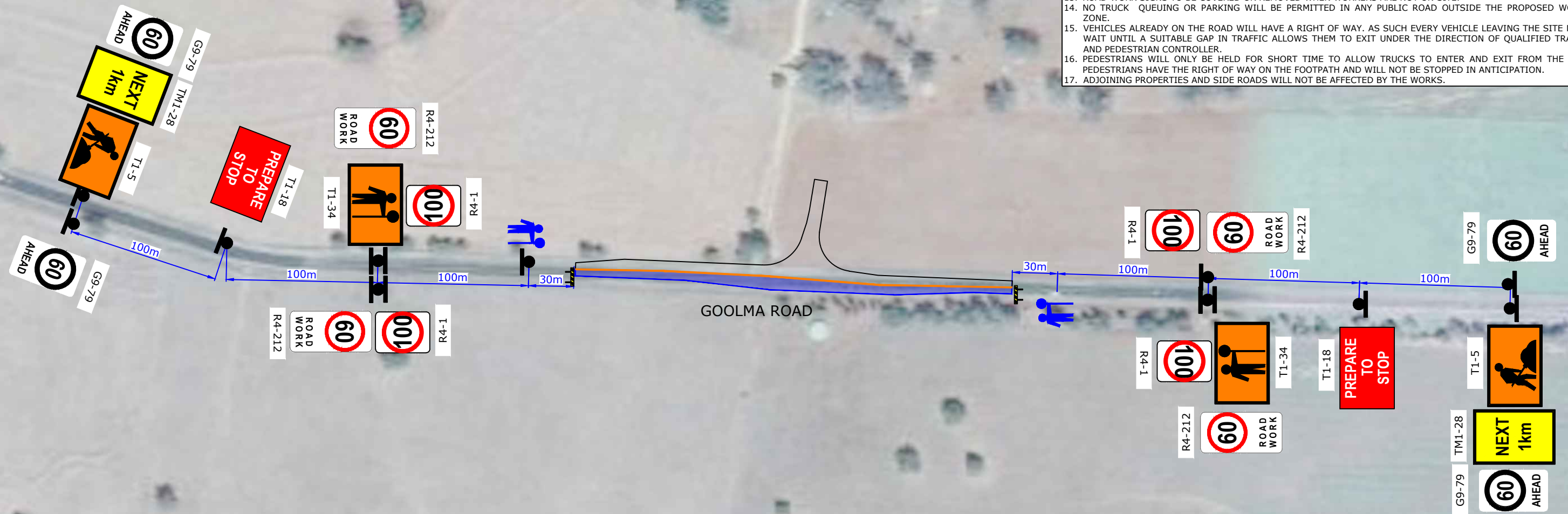
CERTIFICATION
THE UNDERSIGNED HAS OBTAINED "PREPARE A WORK ZONE TRAFFIC MANAGEMENT PLAN" CERTIFICATION.

CERTIFICATE NO: TCT1008289
KARL MAGISTRADO



TRAFFIC MANAGEMENT NOTES:

1. NOT ALL DIMENSIONS SHOWN ARE TO SCALE.
2. LOCATION OF SIGNS ARE TO BE CONFIRMED ON-SITE TO ENSURE APPROPRIATE VISIBILITY.
3. ALL SIGNS TO BE MINIMUM SIZE A.
4. ALL SIGNS TO BE CLASS 1 REFLECTIVE OR DIAMOND GRADE.
5. ALL WORKERS WILL BE CONFINED TO THE DEDICATED WORKS AREA SHOWN ON THE PLAN.
6. ALL TRAFFIC CONTROL PLANS ARE TO BE IMPLEMENTED IN ACCORDANCE WITH THE TFNSW "TRAFFIC CONTROL AT WORK SITES" MANUAL, VER6 (2020) AND AUSTRALIAN STANDARDS AS1742.3:2009 MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, PART 3: TRAFFIC CONTROL DEVICES FOR WORKS ON ROADS.
7. THIS TRAFFIC CONTROL PLAN MUST BE SETUP BY A PERSON HOLDING AN "APPLY TRAFFIC CONTROL PLANS" (YELLOW TICKET) AND THE TFNSW TRAFFIC CONTROL AT WORK SITES CHECKLIST SHALL BE COMPLETED PRIOR TO IMPLEMENTATION.
8. IT IS THE SITE FOREMAN'S RESPONSIBILITY TO ENSURE THE FOLLOWING:
 - THE INTEGRITY OF ALL TRAFFIC CONTROL MEASURES THROUGH TO THE FINAL REMOVAL. THIS INCLUDES DAILY CHECKS OF ALL SIGNS AND DEVICES. THE CORRESPONDING RECORDS OF CHECKS SHALL BE KEPT ON FILE FOR AUDITING PURPOSES.
 - VEHICULAR ACCESS AND SERVICING REQUIREMENTS ARE TO BE MAINTAINED AT ALL TIMES TO ADJACENT PROPERTIES AFFECTED BY TRAFFIC CONTROL MEASURES
 - PEDESTRIAN ACCESS AROUND THE WORK AREA TO BE MAINTAINED AT ALL TIMES.
 - AT ALL TIMES UP-TO-DATE COPY OF "TRAFFIC CONTROL AT WORK SITES" SHOULD BE AVAILABLE FOR REFERENCE AND IMPLEMENTATION AS REQUIRED ON-SITE
 - IF THERE IS NO DESIGNATED SITE FOREMAN, THE RESPONSIBILITY SHALL FALL ON THE CONTRACTOR OF WORKS
9. ALL WORKERS MUST ADHERE TO THE APPLICABLE SAFE WORK DISTANCE AS DESCRIBED IN AS1742.3:2009
10. ALL DISTANCES BETWEEN SIGNS ARE TO BE IN ACCORDANCE WITH THE SECTION 2.5.2 OF AS1742.3:2009. HOWEVER, MODIFICATIONS MADE TO SUIT SITE CONDITIONS.
11. ALL CONSTRUCTION VEHICLE ACTIVITY SHOULD BE MINIMISED, WHERE POSSIBLE, DURING PEAK PERIODS.
12. TRAFFIC CONTROLLER (T1-34) AND PREPARE TO STOP (T1-18) SIGNS TO BE COVERED OR REMOVED WHEN TRAFFIC CONTROLLER/S ARE NOT ON SITE.
13. ROAD WORK SIGNS TO BE COVERED OR REMOVED WHEN WORKERS ARE NOT ON SITE.
14. NO TRUCK QUEUING OR PARKING WILL BE PERMITTED IN ANY PUBLIC ROAD OUTSIDE THE PROPOSED WORKS ZONE.
15. VEHICLES ALREADY ON THE ROAD WILL HAVE A RIGHT OF WAY. AS SUCH EVERY VEHICLE LEAVING THE SITE MUST WAIT UNTIL A SUITABLE GAP IN TRAFFIC ALLOWS THEM TO EXIT UNDER THE DIRECTION OF QUALIFIED TRAFFIC AND PEDESTRIAN CONTROLLER.
16. PEDESTRIANS WILL ONLY BE HELD FOR SHORT TIME TO ALLOW TRUCKS TO ENTER AND EXIT FROM THE SITE. PEDESTRIANS HAVE THE RIGHT OF WAY ON THE FOOTPATH AND WILL NOT BE STOPPED IN ANTICIPATION.
17. ADJOINING PROPERTIES AND SIDE ROADS WILL NOT BE AFFECTED BY THE WORKS.



LEGEND:

- WORKS AREA
- WATER-FILLER BARRIER
- SIGN POST
- TRAFFIC CONTROLLER

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	SB	JR	22/12/21



PROJECT	WELLINGTON NORTH SOLAR FARM			DWG No.	21366CAD001	
TITLE	TRAFFIC CONTROL PLAN - CONTRA FLOW ARRANGEMENT EARLY WORKS - DAYTIME - EAST OF WORKS AREA			DATE STAMP	22 DECEMBER 2021	
				PROJECT No.	21366	SCALE
						NTS
						REV.
						A

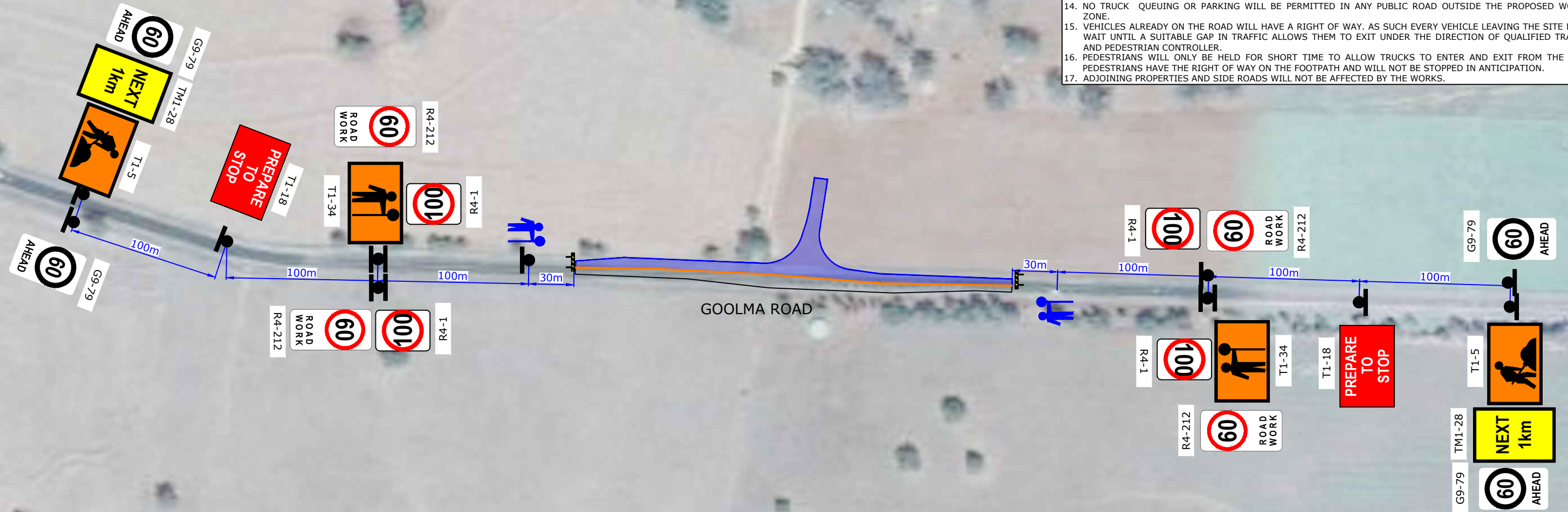
CERTIFICATION
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LEGEND:

- WORKS AREA
- WATER-FILLER BARRIER
- SIGN POST
- TRAFFIC CONTROLLER

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	SB	JR	22/12/21



PROJECT	WELLINGTON NORTH SOLAR FARM			DWG No.	21366CAD001 FIGURE 2	
TITLE	TRAFFIC CONTROL PLAN - CONTRA FLOW ARRANGEMENT EARLY WORKS - DAYTIME - WEST OF WORKS AREA			DATE STAMP	22 DECEMBER 2021	
				PROJECT No.	21366	SCALE NTS
						REV. A

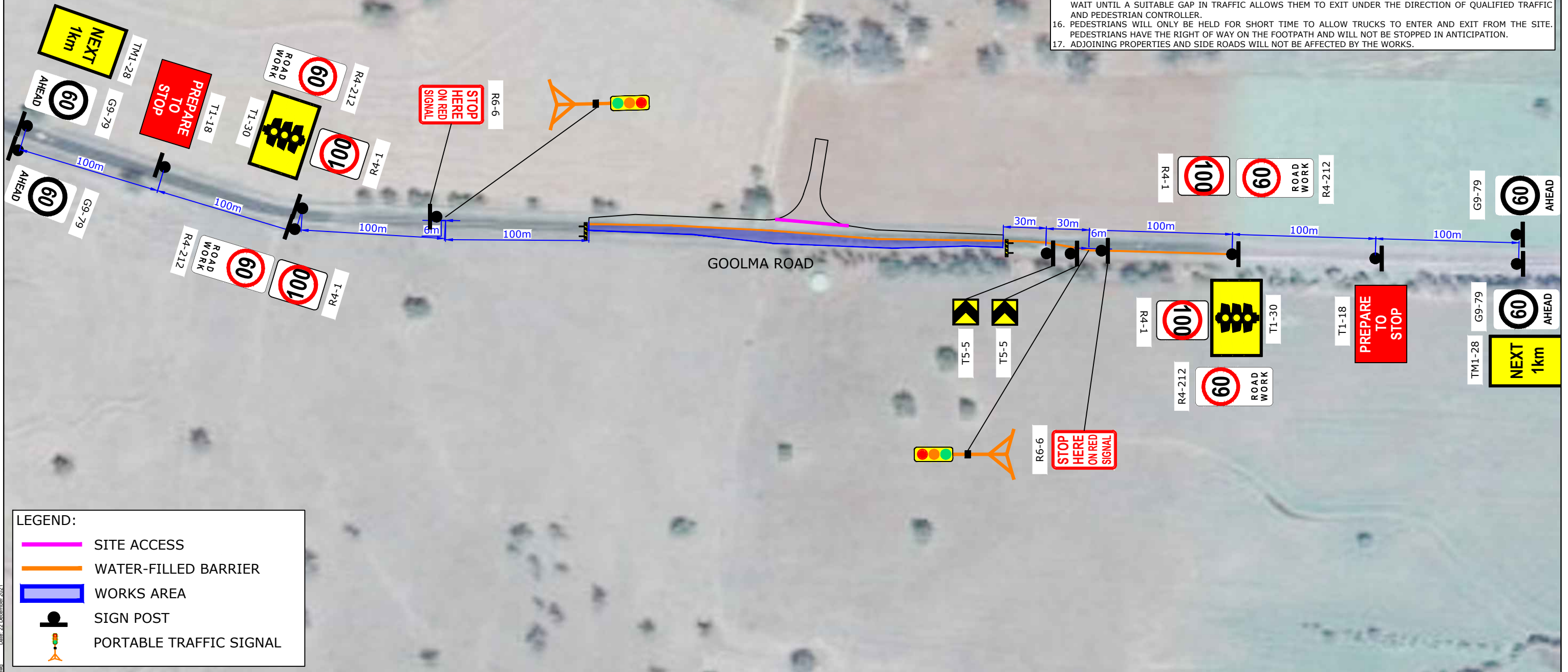
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4. ALL SIGNS TO BE CLASS 1 REFLECTIVE OR DIAMOND GRADE.
5. ALL WORKERS WILL BE CONFINED TO THE DEDICATED WORKS AREA SHOWN ON THE PLAN.
6. ALL TRAFFIC CONTROL PLANS ARE TO BE IMPLEMENTED IN ACCORDANCE WITH THE TFNSW "TRAFFIC CONTROL AT WORK SITES" MANUAL, VER6 (2020) AND AUSTRALIAN STANDARDS AS1742.3:2009 MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, PART 3: TRAFFIC CONTROL DEVICES FOR WORKS ON ROADS.
7. THIS TRAFFIC CONTROL PLAN MUST BE SETUP BY A PERSON HOLDING AN "APPLY TRAFFIC CONTROL PLANS" (YELLOW TICKET) AND THE TFNSW TRAFFIC CONTROL AT WORK SITES CHECKLIST SHALL BE COMPLETED PRIOR TO IMPLEMENTATION.
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 - IF THERE IS NO DESIGNATED SITE FOREMAN, THE RESPONSIBILITY SHALL FALL ON THE CONTRACTOR OF WORKS
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10. ALL DISTANCES BETWEEN SIGNS ARE TO BE IN ACCORDANCE WITH THE SECTION 2.5.2 OF AS1742.3:2009. HOWEVER, MODIFICATIONS MADE TO SUIT SITE CONDITIONS.
11. ALL CONSTRUCTION VEHICLE ACTIVITY SHOULD BE MINIMISED, WHERE POSSIBLE, DURING PEAK PERIODS.
12. TRAFFIC CONTROLLER (T1-34) AND PREPARE TO STOP (T1-18) SIGNS TO BE COVERED OR REMOVED WHEN TRAFFIC CONTROLLER/S ARE NOT ON SITE.
13. ROAD WORK SIGNS TO BE COVERED OR REMOVED WHEN WORKERS ARE NOT ON SITE.
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17. ADJOINING PROPERTIES AND SIDE ROADS WILL NOT BE AFFECTED BY THE WORKS.



LEGEND:

- SITE ACCESS
- WATER-FILLED BARRIER
- WORKS AREA
- SIGN POST
- PORTABLE TRAFFIC SIGNAL

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	SB	JR	22/12/21



PROJECT	WELLINGTON NORTH SOLAR FARM
TITLE	TRAFFIC CONTROL PLAN- CONTRA FLOW ARRANGEMENT EARLY WORKS - NIGHTTIME - EAST OF WORKS AREA

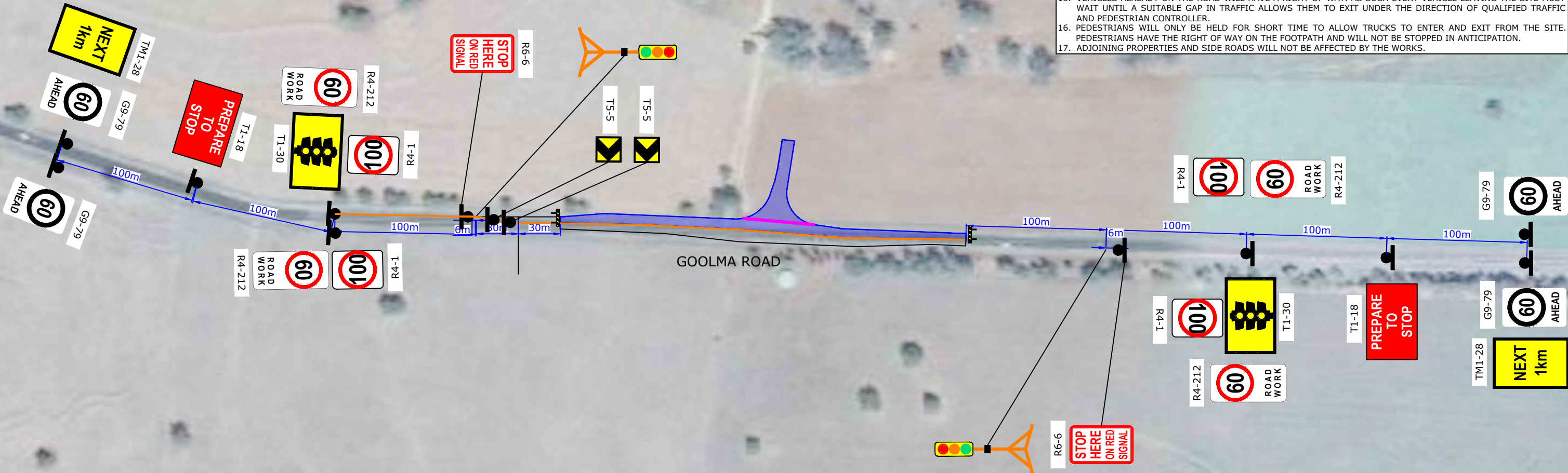
DWG No.	21366CAD001
FIGURE 3	
DATE STAMP	22 DECEMBER 2021
PROJECT No.	21366
SCALE	NTS
REV.	A

CERTIFICATION
THE UNDERSIGNED HAS OBTAINED "PREPARE A WORK ZONE TRAFFIC MANAGEMENT PLAN" CERTIFICATION.

CERTIFICATE NO: TCT1008289
KARL MAGISTRADO



- TRAFFIC MANAGEMENT NOTES:**
1. NOT ALL DIMENSIONS SHOWN ARE TO SCALE.
 2. LOCATION OF SIGNS ARE TO BE CONFIRMED ON-SITE TO ENSURE APPROPRIATE VISIBILITY.
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- SITE ACCESS
- WATER-FILLED BARRIER
- WORKS AREA
- SIGN POST
- PORTABLE TRAFFIC SIGNAL

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	SB	JR	22/12/21



PROJECT	WELLINGTON NORTH SOLAR FARM	
TITLE	TRAFFIC CONTROL PLAN- CONTRA FLOW ARRANGEMENT EARLY WORKS - NIGHTTIME - WEST OF WORKS AREA	

DWG No.	21366CAD001 FIGURE 4	
DATE STAMP	22 DECEMBER 2021	
PROJECT No.	SCALE	REV.
21366	NTS	A

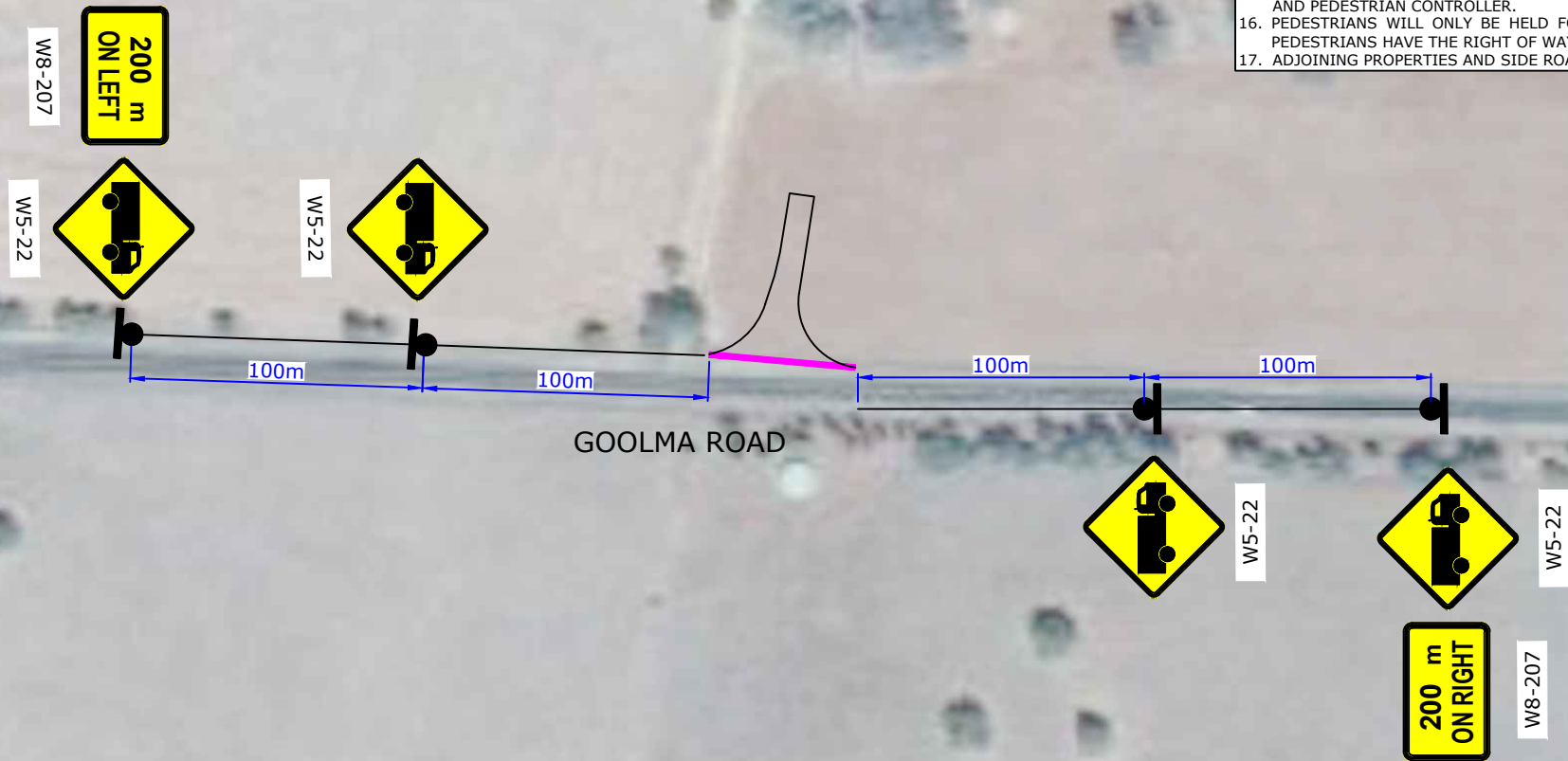
CERTIFICATION
THE UNDERSIGNED HAS OBTAINED "PREPARE A WORK ZONE TRAFFIC MANAGEMENT PLAN" CERTIFICATION.



CERTIFICATE NO: TCT1008289
KARL MAGISTRADO



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LEGEND:
 SITE ACCESS
 SIGN POST

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	SB	JR	22/12/21



PROJECT	WELLINGTON NORTH SOLAR FARM	
TITLE	TRAFFIC CONTROL PLAN MAIN WORKS	

DWG No.	21366CAD001 FIGURE 5	
DATE STAMP	22 DECEMBER 2021	
PROJECT No.	SCALE	REV.
21366	NTS	A

Appendix B

Driver Code of Conduct



DRIVER CODE OF CONDUCT
FOR
WELLINGTON NORTH SOLAR FARM

Driver Code of Conduct

This document sets out the requirements for heavy vehicle operators performing work at Wellington North Solar Farm development.

DECLARATION

I, the undersigned, hereby agree to abide by the Driver Code of Conduct for the above project.

I have read and understand the requirements outlined in the Code and will, to the best of my ability, comply and assist with their implementation, requirements and ongoing administration.

Driver

Full Name: _____

Organisation: _____

Signature: _____

Date: _____

1.0 General Requirements

The Driver Code of Conduct is to be distributed to all heavy vehicle driver personnel accessing the site prior to the commencement of works. The Code is to be provided to each driver to read and sign to confirm they have understood and pledge to follow the haulage instructions. Once completed, a copy of the signed Code would be supplied by the sub-contractor or personnel to Lightsource BP for record keeping.

All drivers travelling to and from the site must:

- Have read and signed the Driver Code of Conduct (this document) prior to entry to the site;
- Hold a valid driver's license for the class of vehicle that it being operated;
- Operate the vehicle in a safe manner while on site and public road network;
- Comply with the direction of authorised site personnel when onsite;
- All drivers are to use seat belts when driving; and
- All drivers are to drive to the sign posted speed limit, both on public roads and within the site.

2.0 Driver Fatigue and Occupational Health and Safety

The Heavy Vehicle National Law and Regulations set out the laws and requirements pertaining to fatigue management. This includes the standard hours for drivers, maximum work times and minimum rest times for drivers, and penalties for not complying with fatigue-related heavy vehicle laws. A link to the Heavy Vehicle National Law and Regulations is provided below:

- <https://www.nhvr.gov.au/law-policies/heavy-vehicle-national-law-and-regulations#application-laws>

The Heavy Vehicle National Law sets three work and rest options.

- Standard hours
- Basic Fatigue Management (BFM)
- Advanced Fatigue Management (AFM)

It would be the responsibility of the EPC Contractor and/or transportation provider have the relevant agreements in place for drivers. Details for each of these options are provided via the NHVR website below:

- <https://www.nhvr.gov.au/safety-accreditation-compliance/fatigue-management/work-and-rest-requirements>

Prior to commencing a journey, it is required for the operator/ driver to plan for stops by scheduling regular rest times based on the length of overall journey, the designated route, and rest area locations. Rest areas in NSW for both light and heavy vehicles can be found at the TfNSW website below:

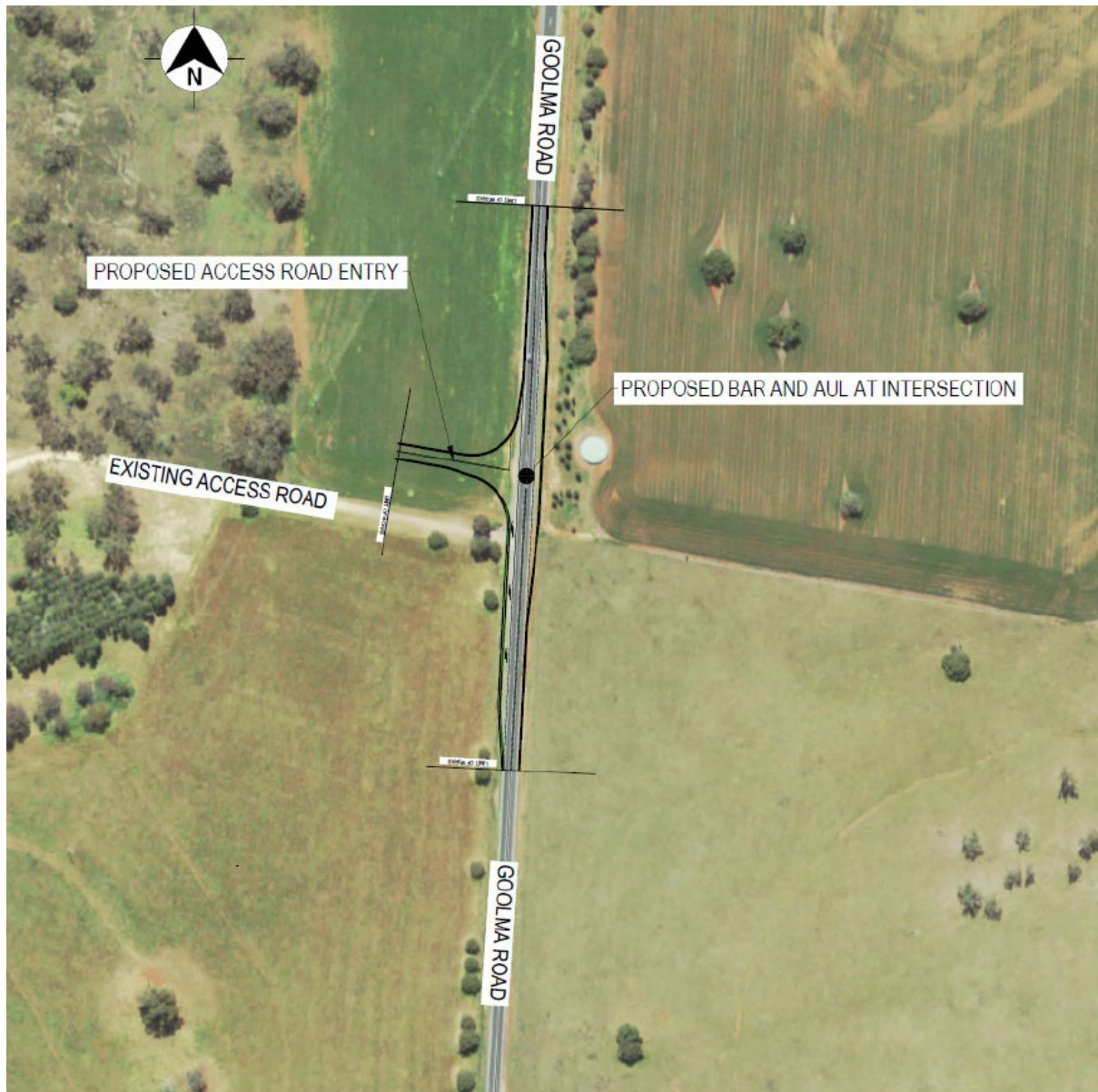
- <https://roads-waterways.transport.nsw.gov.au/roads/using-roads/trip-information/rest-areas/map/>

All personnel entering the site are required to follow occupational health and safety legislation. This means that you must:

- Carry out your duties in a way which does not adversely affect your own health and safety or that of others.
- Cooperate with measures introduced in the interest of workplace health and safety;
- Perform any WH&S training provided; and
- Report all matters which may affect workplace health & safety to your supervisor immediately.

3.0 Site Access

All vehicles are to enter and exit the construction site via the proposed site access driveway located off Goolma Road, as shown below.



Heavy vehicles are to enter the site via the "Site Entry" lane.

Heavy vehicles will exit the site via the "Site Exit" lane.

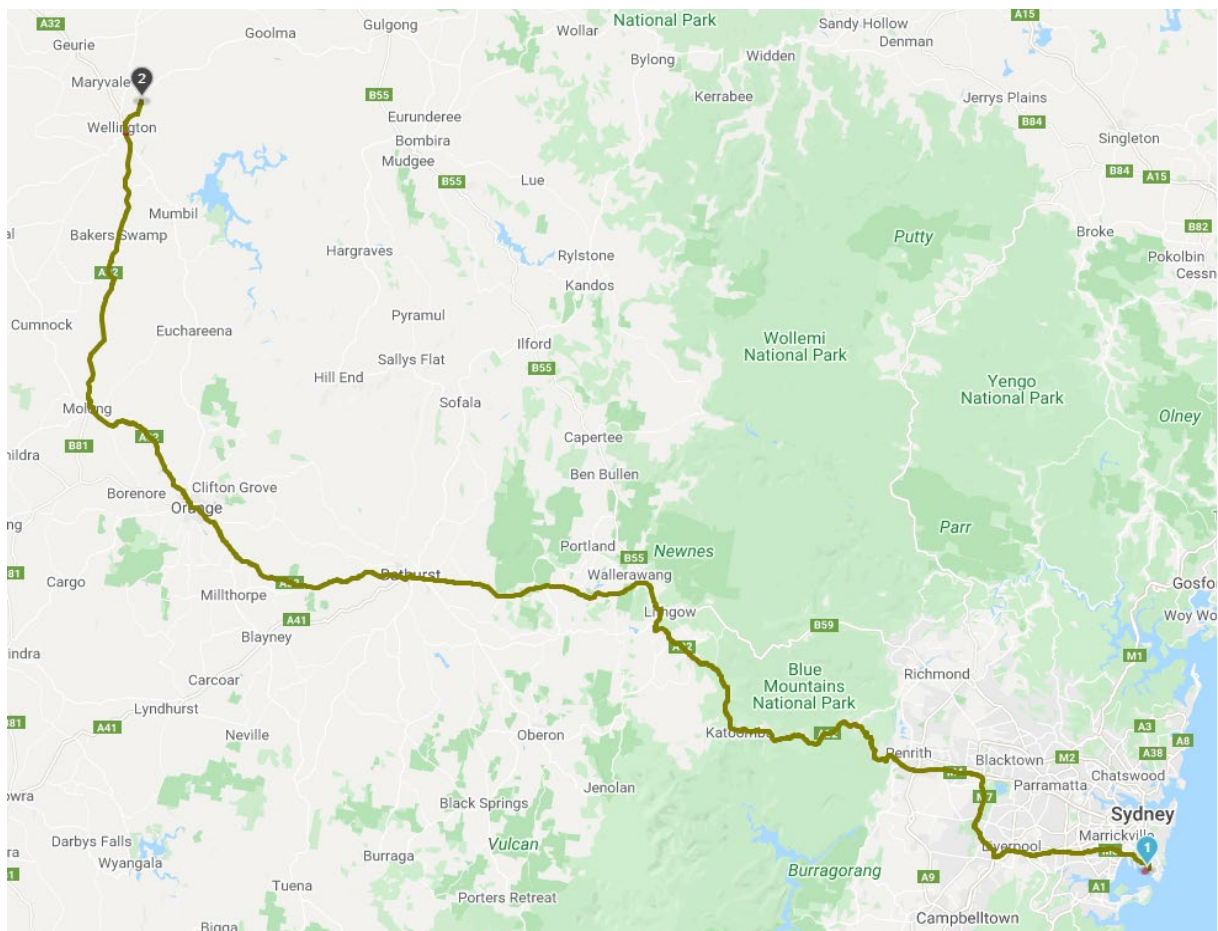
All vehicles must enter and exit the site in a forward direction. Whilst on-site all vehicles must follow the internal circulation route through the site. All construction vehicles, including heavy vehicles and construction workers, must enter and exit the site via Goolma Road.

4.0 Heavy Vehicle Transport Routes

Transport routes to the site from Port Botany or Port of Newcastle must be adhered to as follows:

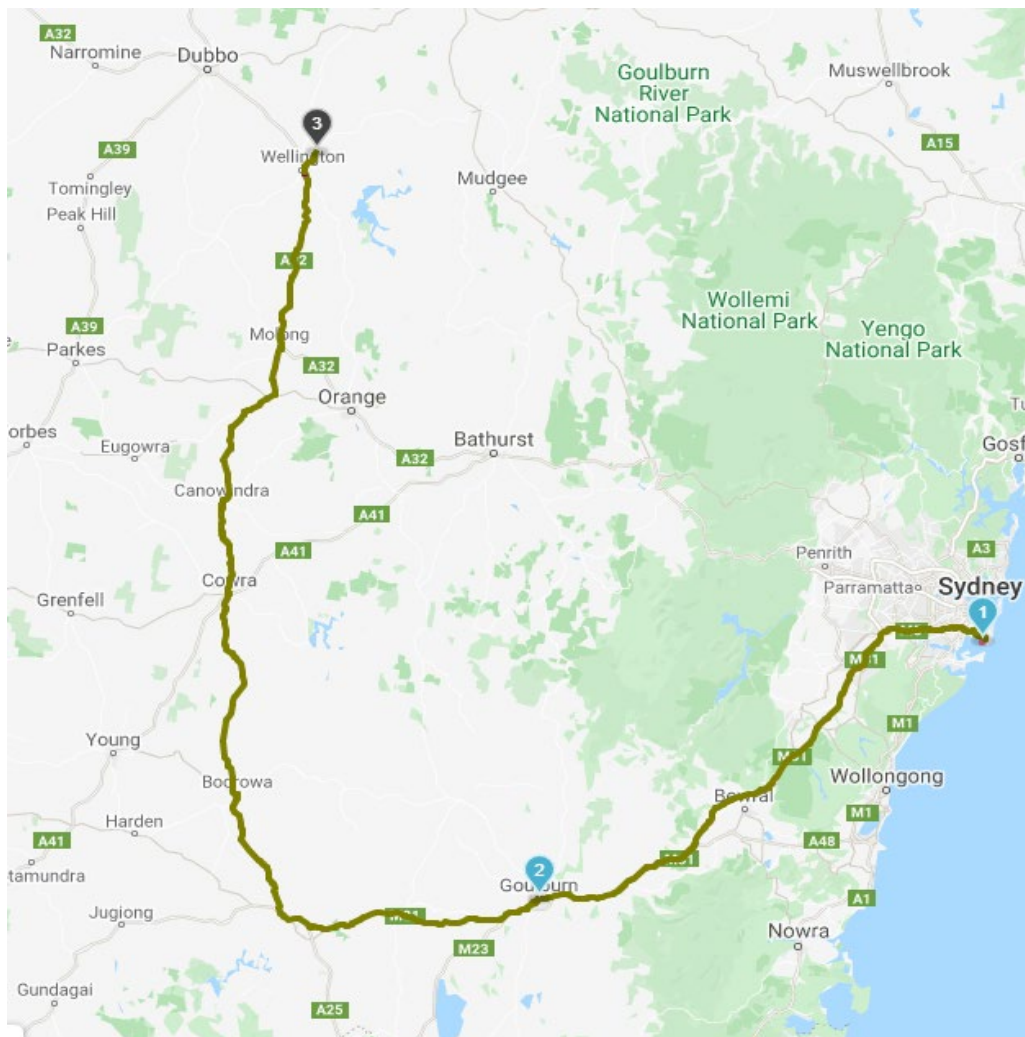
Port Botany to Wellington – 19 m Semi-trailer Route

- Botany Road,
- M5 East and M5 Motorway,
- M7 Motorway,
- M4 Western Motorway,
- Great Western Motorway (Glenbrook and Bathurst),
- A32 Mitchell Highway (Orange and Wellington), and
- Goolma Road.



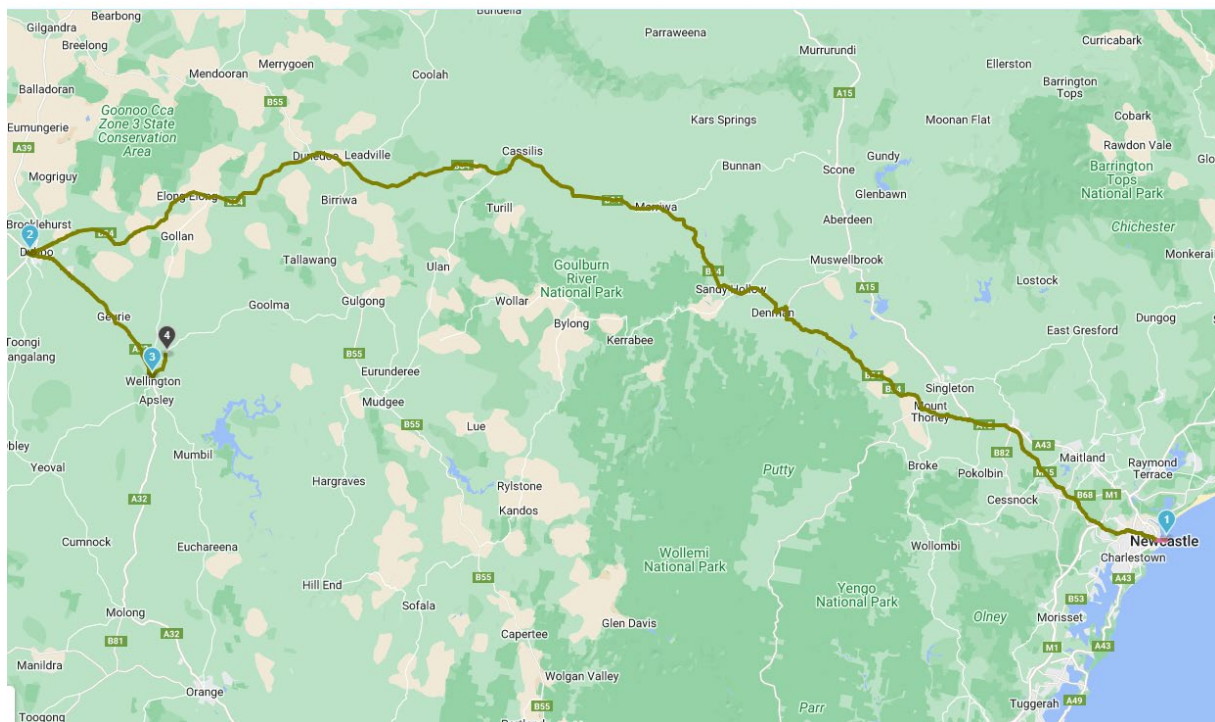
Port Botany to Wellington – 25/26 m B-Double Route

- Botany Road,
- M5 East and M5 Motorway,
- South Western Motorway,
- Great Western Motorway,
- M31 Hume Highway (Glenfield, Goulburn to Yass),
- B81 Lachlan Valley Way (Yass to Cowra),
- Canowindra Road (Cowra to Cudal)
- The Escort Way,
- Peabody Road,
- A32 Mitchell Highway (Molong to Wellington), and
- Goolma Road.



Port of Newcastle to Wellington – 19 m Semi-trailer & 25/26 B-Double Route

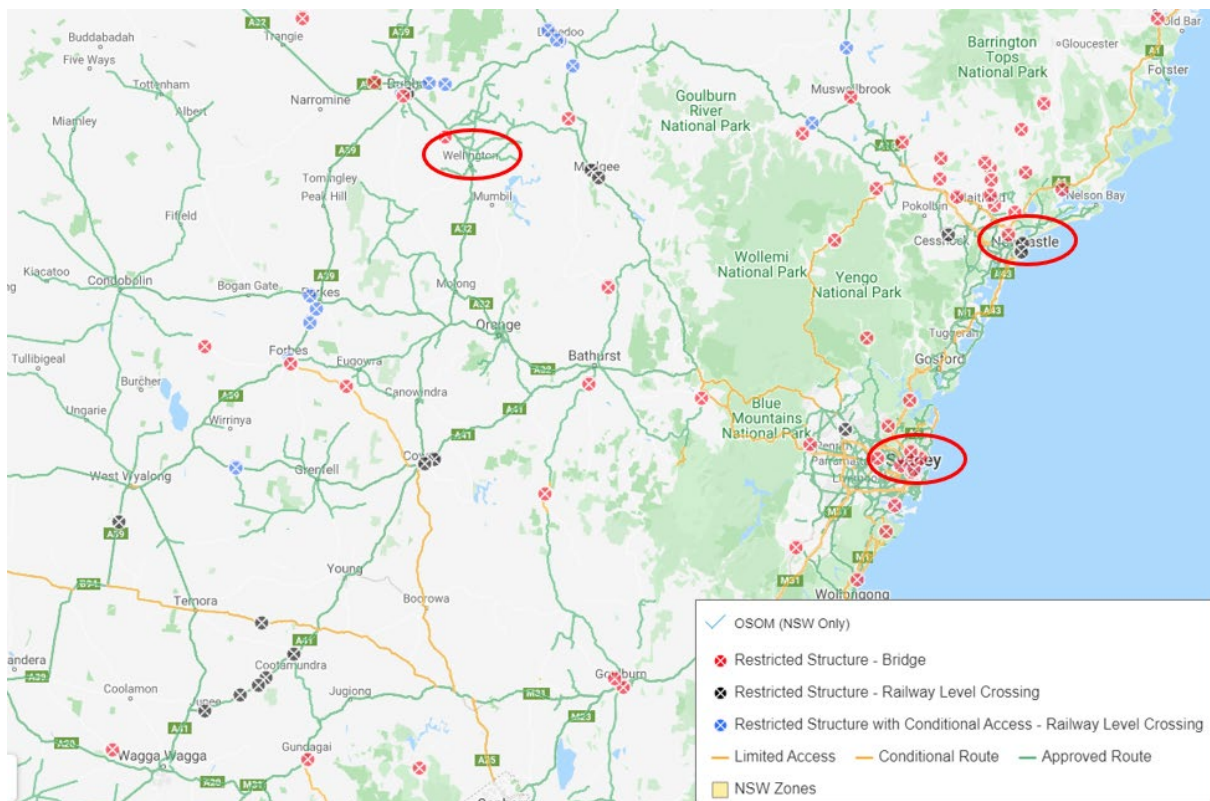
- Cowper Street North,
- Hannell Street,
- Hunter Street,
- Pacific Highway,
- Selma Street,
- Donald Street,
- Griffiths Road,
- Newcastle Road,
- Newcastle Link Road,
- Hunter Expressway,
- Golden Highway/ Dunedoo Road/ Cobbora Road,
- Victoria Street/ L.H Ford Bridge,
- Cobra Street/ Wellington Road/ Mitchell Highway, and
- Goolma Road.



Oversize/ Overmass Vehicles

Depending on the dimensions of the OSOM vehicle and the travel conditions, a pilot vehicle and escort vehicle may be required. Whether pilot vehicles and escort vehicles are required will be determined once details of any oversize/ overmass development infrastructure is known. This will occur once the EPC Contractor has been appointed for the project.

Between Port Botany and Wellington, OSOM vehicles are permitted to travel via the same route as the 19 m semi-trailer. Between Port of Newcastle and Wellington, OSOM vehicles are permitted to travel via the same route as the 19 m semi-trailer and 25/26 m B-double. However, there may be limited access along these routes depending on the specifications of the OSOM vehicle. The OSOM network is shown below while further detail of the OSOM vehicle specifications and proposed route would be provided at the time of applying for a OSOM permit with NHVR.



All routes should be mapped using the NHVR Route Planner (online) as per the link below:

- <https://www.nhvr.gov.au/road-access/route-planner>

The necessary permits must be obtained prior to any special travel, such as an OSOM permit.

5.0 Speed Limit

All drivers must comply with the Australian Road Rules with travelling along public roads. Drivers are to observe the posted speed limits, and adjust speed appropriately to suit the road and weather conditions at the time.

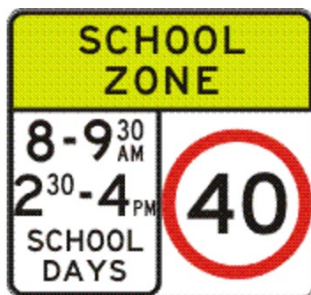
Speed limits on routes to the site from areas surrounding Wellington vary between 40 km/h (school zones) up to 110 km/h along Mitchell Highway. The maximum speed that a vehicle must travel is the signposted speed.

In NSW, roads where there is a speed limit sign, you must not drive faster than that speed limit. On roads where there is no speed limit sign, you must not drive faster than the default speed limit:

- 50km/h in 'built-up areas' – areas with street lights and buildings next to the road less than 100m apart.
- 100 km/h for all other roads.

Warning signs indicating a reduction in speed ahead must also be obeyed. These signs are shown below.

NSW Road Speed Limit Signs



Speed Reduction Ahead Warning Sign



The speed limit within the site is 10 km/h (walking speed), unless signposted otherwise in an area. The speed limit on-site is to be strictly obeyed.

6.0 Parking

All heavy vehicle operators must park vehicles in the designated spaces on-site.

Parking on-street along Goolma Road, or any other local roads in the vicinity is not permitted.

Heavy vehicles are not permitted to layover/ wait on any public roads.

7.0 Noise Control

Where possible, heavy vehicle operators should not use engine brakes near residences and built up areas along their journey.

All heavy vehicles must be fitted with audible reversing alarms. However, to minimise disturbance to neighbouring residents, reversing should be minimised on-site where possible.

8.0 Load Covering

All loaded trucks arriving at and departing from the construction site are required to have an effective cover over their load for the duration of the journey, except loads carrying metals (steel reinforcement, heavy steel, etc.). The load cover may be removed only upon arrival at the destination (i.e. at the site).

Care must be taken to ensure that all loose debris from vehicles and wheels is removed prior to exiting the site.

Site management is to monitor loose material on the side of the haul route and take appropriate action regularly.

9.0 Other Safety Considerations

All drivers travelling to/from the site must be aware of the following:

- Concealed driveways – drivers are to drive with caution around any signposted concealed driveways
- Wet/ foggy weather safety – drivers should adjust their driving speed to suit weather condition at the time.
- Other road users – drivers should stay alert to other drivers, motorcyclists, cyclists and pedestrians whilst driving to/ from the site.
- Safe driving practices – apply minimum distance between vehicles, minimise distractions within the vehicle, ensure checks for vehicles and equipment quality prior to journey, observe dispatch and product transportation schedule.

Appendix C

Traffic Mitigation and Management Measures for the Development

The table below consolidates the mitigation and/or management measures presented within this TMP. It provides commitments regarding applicable development phases, responsibilities, timing and records. Further details regarding each measure are provided within the relevant section of this TMP.

From left to right, the columns of this table describe:

- The 'Source': where the measure has been recommended for the development
- The 'ID': a unique identifier for each measure, as identified within the plan or strategy
- The 'Aspect': a high-level summary of what matter is being mitigated
- The 'Mitigation / Management Measure': describes the actions that will be undertaken to reduce the impacts of the development, including a summary of any proposed techniques that will be used to implement the mitigation
- The 'Development Phase': identifies what part of the development phase the measure will apply. A measure can apply to multiple development phases.
- The 'Responsible Party': identifies which group is responsible for implementing the applicable measure. The 'Personnel Responsible' column identifies the individual from the 'Responsible Party' who is to implement the mitigation. Numbers 1-4 have been used to represent which individual is responsible, as follows:
 - 1 LSbp Development Principal
 - 2 Engineer, Procurement & Construction (EPC) Site Manager
 - 3 EPC Health, Safety and Environment (HSE) Coordinator
 - 4 All Employees and Contractors
 - Note: for some mitigation measures, there is more than one 'Responsible Party' and 'Personnel Responsible'
- The 'Timing/Frequency': describes when a measure is to be implemented, or how frequently it is to be implemented
- The 'Implementation Action': provides a high-level statement that show how the mitigation/proposed techniques for each measure are practically being done within the development area. These procedures are described within the relevant section of each applicable plan or strategy.
- The 'Compliance Record': identifies the record that will be used to maintain compliance with the applicable measure.

Source	ID	Aspect	Mitigation / Management Measure	Development Phase				Responsible Party				Timing/ Frequency	Implementation Action	Compliance Record
				Early Works Construction	Main Works Construction	Operations and Maintenance	Decommissioning	Principal (LSbp)	EPC Contractor	Operations and Maintenance Contractor	Personnel Responsible ^{1,2,3,4}			
SSD8895 Development Consent	TMP-01a	Traffic	Prepare a TMP in accordance with Schedule 3, Condition 9	✓	✓	✓	✓	✓	-	-	1	Prior to commencing the road upgrades	This TMP	This TMP
SSD8895 Development Consent	TMP-01b	Traffic	Implement a TMP in accordance with Schedule 3, Condition 9	✓	✓	✓	✓	-	✓	✓	2 and 3	Prior to commencing the road upgrades	This TMP	This TMP
SSD8895 Development Consent	TMP-02	Traffic	The nominated transport route via Mitchell Highway and Goolma Road and Twelve Mile Road is to be used by construction vehicles, including oversize/ overmass vehicles in accordance with Condition 4 of the Development Consent (SSD-8895). Routes to be utilised to ensure compliance with TfNSW and National Heavy Vehicle Regulator (NHVR) road access provisions.	✓	✓	-	-	-	✓	-	5	Daily	This TMP, Sections 3.3 and 5.4	Daily site inspection record
SSD8895 Development Consent	TMP-03	Traffic	Temporary traffic control signage (and presence of traffic controllers, where required) to be implemented on approaches to the road works area in accordance with Traffic Control Plans.	✓	✓	-	-	-	✓	-	2 and 3	Daily	This TMP, Section 5.1	Daily site inspection record
SSD8895 Development Consent	TMP-04	Traffic	Maximum number of construction vehicle trips to be maintained in accordance with Condition 2 of the Development Consent (SSD-8895) to avoid causing a negative impact on general traffic and school bus routes on Goolma Road	✓	✓	-	-	-	✓	-	2 and 3	Daily	This TMP, Chapter 5	Daily site inspection record
SSD8895 Development Consent	TMP-05	Traffic	Employee shuttle bus service and car-pooling to be implemented throughout construction to avoid causing negative impacts on the surrounding road network as a result of increased staff car trips.	✓	✓	-	-	-	✓	-	2 and 3	Daily	This TMP, Section 5.5	Daily site inspection record
SSD8895 Development Consent	TMP-06	Traffic	Construction vehicle parking to be undertaken on-site to avoid parking within the public road network with potential to result in negative traffic and safety impacts.	✓	✓	-	-	-	✓	-	2 and 3	Daily	This TMP, Section 3.6	Daily site inspection record
SSD8895 Development Consent	TMP-07	Traffic	Notification of lane closures/ changed road conditions to the local community to avoid negative impacts to residents, businesses, industries etc.	✓	✓	-	-	-	✓	-	2	Prior to Construction	This TMP, Section 5.9	Consultation records

Source	ID	Aspect	Mitigation / Management Measure	Development Phase				Responsible Party				Timing/ Frequency	Implementation Action	Compliance Record
				Early Works Construction	Main Works Construction	Operations and Maintenance	Decommissioning	Principal (LSbp)	EPC Contractor	Operations and Maintenance Contractor	Personnel Responsible ^{1,2,3,4}			
SSD8895 Development Consent	TMP-08	Traffic	Implement a feedback register to record complaints and compliments, which would be reviewed monthly to determine any systematic issues arising from the project.	✓	✓	-	-	-	✓	-	2 and 3	Monthly	This TMP, Section 5.8	As per EMS procedures
SSD8895 Development Consent	TMP-09	Traffic	Implement an employee induction and training program, and Driver Code of Conduct to ensure employees are adequately informed of the project details, appropriately skilled to carry-out tasks, and to be aware of their role and responsibilities.	✓	✓	-	-	-	✓	-	2 and 3	Once-off	This TMP, Sections 5.2 and 5.3	Workers / Drivers Site Induction and Training Program to be developed by EPC HSE
SSD8895 Development Consent	TMP-10	Traffic	Consultation with Uungula Wind Farm project team to discuss timing of project and to ensure cumulative impacts, if any, are managed to be maintained at a reasonable level.	✓	✓	-	-	✓	✓	-	1 and 2	Ongoing	This TMP, Section 5.9	Consultation records
SSD8895 Development Consent	TMP-11	Traffic	Implement rumble grids at the site access points to minimise dirt tracked onto the public road network from construction vehicles	✓	✓	-	-	-	✓	-	2	Once-off	This TMP, Section 3.3	Design documentation
SSD8895 Development Consent	TMP-12	Traffic	Deliveries of material and/or equipment to the development site would be scheduled throughout the day to minimise heavy vehicle convoys deliveries on the surrounding road network or platoons (closely spaced heavy vehicle arrivals) at the development site.	✓	✓	-	-	-	✓	-	2 and 3	Ongoing	This TMP, Section 5.4	Works planning, Compliance records
SSD8895 Development Consent	TMP-13	Traffic	Advisory road signage will be installed to inform motorists travelling on Goolma Road of roadworks ahead, speed reduction ahead, and construction vehicles turning into and out of the construction site access. This signage will be erected on new signposts on approach to the works area for the duration of the road upgrade and solar farm construction works.	✓	✓	-	-	-	✓	-	2 and 3	Ongoing	This TMP, Section 5.4	Daily site inspection record
SSD8895 Development Consent	TMP-14	Traffic	Site induction would cover details on the nominated vehicle routes to and from the site, as well as standard environmental, workplace health and safety, driver protocols and emergency procedures.	✓	✓	-	-	-	✓	-	2 and 3	Once-off	This TMP, Sections 5.2 and 5.3	Workers / Drivers Site Induction and Training Program to be developed by EPC HSE
SSD8895 Development Consent	TMP-15	Traffic	Site induction and staff training pack would be developed and implemented for workers, vehicle drivers and sub-contractors who will enter the site.	✓	✓	-	-	-	✓	-	2 and 3	Once-off	This TMP, Sections 5.2 and 5.3	Workers / Drivers Site Induction and Training Program to be developed by EPC HSE
SSD8895 Development Consent	TMP-16	Traffic	Information of the shuttle bus routes and pick-up/ drop-off times and locations would be provided in the staff induction pack to inform workers early in the construction timeline when workers are likely to be planning their method of transport to/from work.	✓	✓	-	-	-	✓	-	2 and 3	Ongoing	This TMP, Section 5.5	Workers / Drivers Site Induction and Training Program to be developed by EPC HSE

Source	ID	Aspect	Mitigation / Management Measure	Development Phase				Responsible Party				Timing/ Frequency	Implementation Action	Compliance Record
				Early Works Construction	Main Works Construction	Operations and Maintenance	Decommissioning	Principal (LSbp)	EPC Contractor	Operations and Maintenance Contractor	Personnel Responsible ^{1,2,3,4}			
SSD8895 Development Consent	TMP-17	Traffic	Prior to commencement of construction works, all drivers shall be provided with a copy of the Driver Code of Conduct.	✓	✓	-	-	-	✓	-	2 and 3	Once-off	This TMP, Section 5.3	Workers / Drivers Site Induction and Training Program to be developed by EPC HSE
SSD8895 Development Consent	TMP-18	Traffic	There will be provision of a certain number of on-site car parking spaces, which will be frequently monitored to identify any increase in parking demand.	✓	✓	-	-	-	✓	-	2 and 3	Ongoing	This TMP, Section 5.5	Daily site inspection record
SSD8895 Development Consent	TMP-19	Traffic	A Car-pool Networking Scheme will be prepared in accordance with Section 5.5 of this TMP.	✓	✓	-	-	-	✓	-	3	Once-off	This TMP, Section 5.5	Car-Pool Networking Scheme
SSD8895 Development Consent	TMP-20	Traffic	Secure storage would be available on-site to trades for safely storing tools/ equipment, which would otherwise necessitate a higher rate of workers driving to site.	✓	✓	-	-	-	✓	-	2	Ongoing	This TMP, Section 5.5	Daily site inspection record
SSD8895 Development Consent	TMP-21	Traffic	A Community Information and Awareness Program about the planned construction, timing and transport routes will be implemented.	✓	✓	-	-	-	✓	-	3	Once-off	This TMP, Section 5.6	Community Information and Awareness Program
SSD8895 Development Consent	TMP-22	Traffic	Consultation with local landholders, correctional facilities and local community will be undertaken to provide information regarding planned traffic and access disruptions.	✓	✓	-	-	-	✓	-	3	Ongoing	This TMP, Section 5.9	Consultation records

1 LSbp Development Principal
2 Engineer, Procurement & Construction (EPC) Site Manager
3 EPC Health, Safety and Environment (HSE) Coordinator
4 All Employees and Contractor

Appendix D

Dilapidation Survey Report



**ROAD CONDITION ASSESSMENT
(BEFORE CONSTRUCTION)
WELLINGTON NORTH SOLAR FARM**

Prepared for
GRANSOLAR


11 OCTOBER 2022

DOCUMENT REGISTER

RTE Reference 22351

Prepared by Luke Rytenskild, Dare Janzekovic

Document History

Version	Version date	Details	Reviewed and Authorised	
			Name / Position	Signature
1	11 October 2022	PRIOR TO CONSTR	Luke Rytenskild Director RPEQ 6293	

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1.0 INTRODUCTION

1.1 Background

Rytenskild Traffic Engineering (RTE) has been engaged by Gransolar to carry out an assessment of existing road surface conditions for the Wellington North Solar Farm at Wellington North.

The report is required to satisfy issues the following condition of approval:

The Applicant must:

(a) undertake an independent dilapidation survey to assess the:

- existing condition of Goolma Road and Twelve Mile Road on the transport route, prior to construction, upgrading or decommissioning activities; and
- condition of Goolma Road and Twelve Mile Road on the transport route, following construction, upgrading or decommissioning activities;

(b) repair Goolma Road and Twelve Mile Road on the transport route, if dilapidation surveys identify that the road/s have been damaged during construction, upgrading or decommissioning activities;

in consultation with the relevant roads authority, and to the satisfaction of the Planning Secretary.

This report is a “pre-project” conditions assessment with the inspection carried out on 22 September 2022.

1.2 Study area

In accordance with the approval, the conditions assessment was carried out for the following sections of road:

- Goolma Road, between Mitchell Highway and Gladstone Road.
- Twelve Mile Road, for a distance of 2 kilometres from the Goolma Road intersection.

These road sections are shown in Figure 1.1.

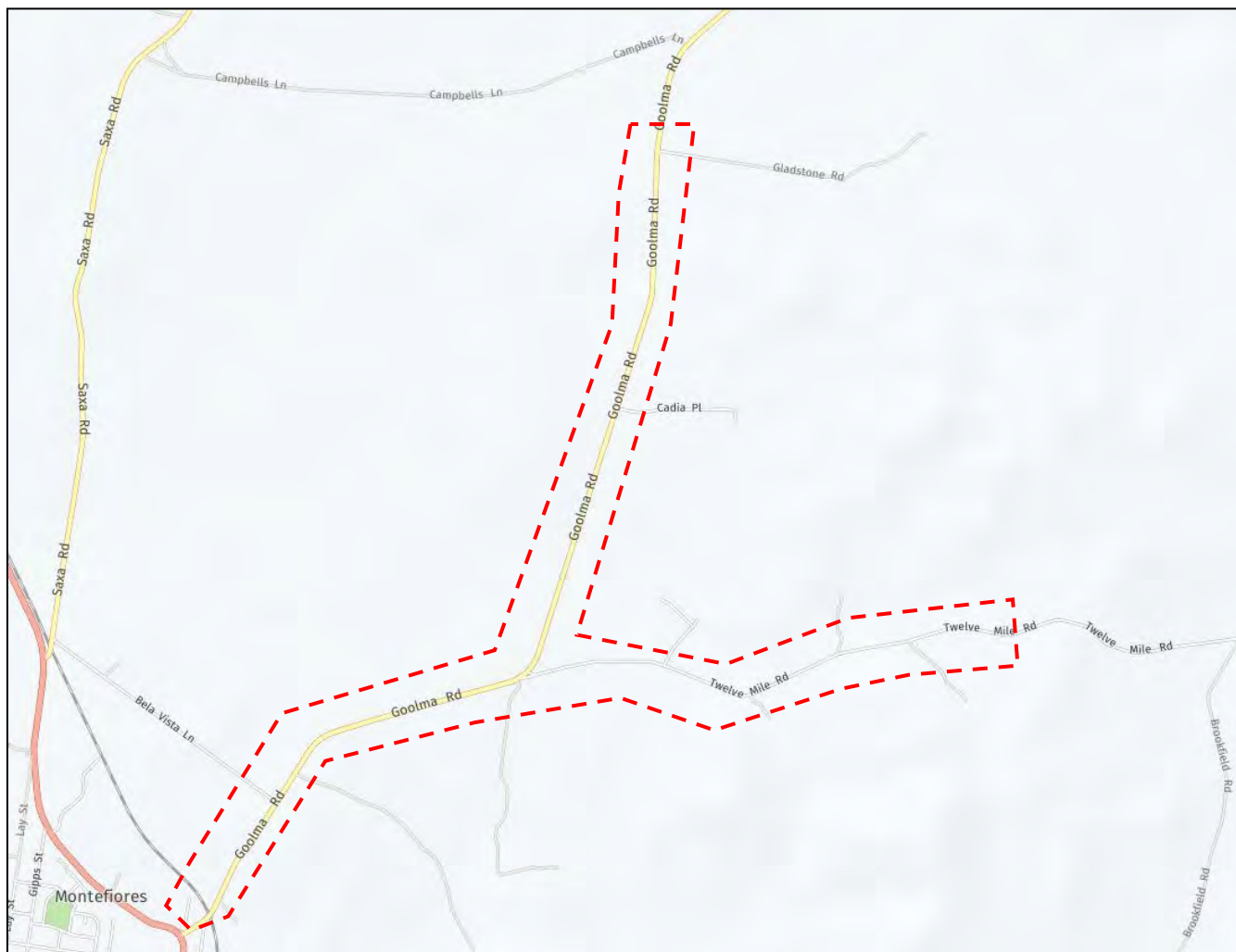


FIGURE 1.1 – STUDY AREA

2.0 SURVEYED PAVEMENT CONDITION

2.1 Method

The existing condition of the section of road in the study area have been inspected with significant points of pavement failure located and photographed.

A photographic and video survey has been carried out for the route. Images were recorded approximately every 20 metres with individual points of pavement failure focused on.

2.2 Observed pavement condition

The existing pavement condition was inspected by Luke Rytenskild (RPEQ Civil) in September 2022.

These conditions are described as follows:

Shoving	Shoving: Bulging and horizontal deformation of the road surface – generally, occurs in areas of high shear stress. Plastic flow: Deformation in asphalt of asphalt surfaces.
Edge break	Occurs along the unsupported edges of asphalt or sprayed seal surfaces where the surface of an unsealed shoulder is below the level of the adjacent pavement surface. Seal/shoulder interface is directly trafficked resulting in abrasion and shear failure of pavement edge.
Potholing	A steep-sided or bowl-shaped cavity extending into layers below the wearing course.
Patches	A repaired section of pavement ranging in size from less than 1 m ² to many linear metres of a half or even full pavement width.

In general, the section of Goolma Road between the Mitchell Highway and Twelve Mile Road is in relatively good condition with some isolated incidents of pot holing and shoving. There are also some sections where the pavement has recently been patched.

To the north of Twelve Mile Road, the pavement condition along Goolma Road is generally good for a distance of 1.5 kilometres up to the Wellington Solar Farm entry. There are regular incidents of failure (generally pot holing) between the solar farm entry and the access to the Correctional Facility, and then again to the north of the Correctional Facility.

2.3 Photographic imagery

Images of the road conditions are shown in Appendix A. Images were taken in the following sequence:

- Commencing at the Mitchell Highway and travelling north along Goolma Road to Gladstone Road.
- Returning southbound along Goolma Road to the Mitchell Highway.
- Commencing at the Goolma road intersection and travelling eastbound along Twelve Mile Road for a distance of two kilometres, and then returning to Goolma Road.
- At the Mitchell Highway / Goolma Road intersection.

Prepared by



LUKE RYTENSKILD

DIRECTOR, B.ENG (Civil), RPEQ 6293

APPENDIX A - IMAGES OF GOOLMA ROAD STARTING AT MITCHELL HWY (NORTHBOUND)

APPENDIX B - IMAGES OF GOOLMA ROAD STARTING AT GLADSTONE RD (SOUTHBOUND)

APPENDIX C - IMAGES OF TWELVE MILE RD STARTING AT GOOLMA RD (EASTBOUND)

APPENDIX D - IMAGES OF TWELVE MILE RD STARTING 2 KM EAST OF GOOLMA RD (WESTBOUND)

APPENDIX E – IMAGES AT THE MITCHELL HWY / GOOLMA ROAD INTERSECTION

APPENDIX A – IMAGES OF GOOLMA ROAD - NORTH BOUND

IMAGES TAKEN AT REGULAR INTERVALS OF APPROX 30m COMMENCING JUST NORTH OF MITCHELL HWY













1.0 km







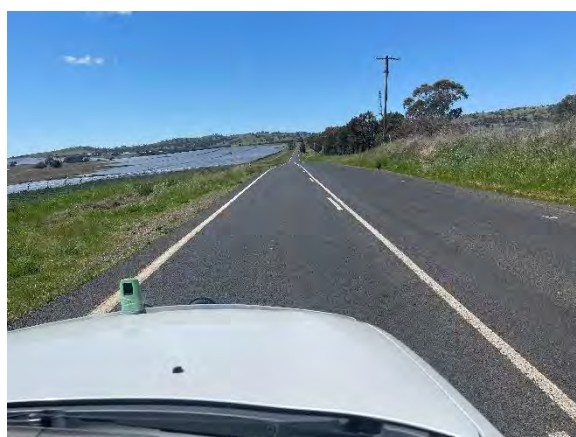




1.5 km









2.0 km







2.5 km





















3.8 km



















5.0 km









5.4 km













5.9 km



6.0 km











6.4 km



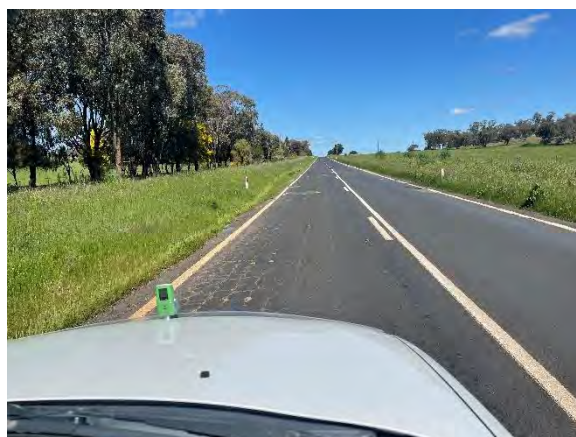
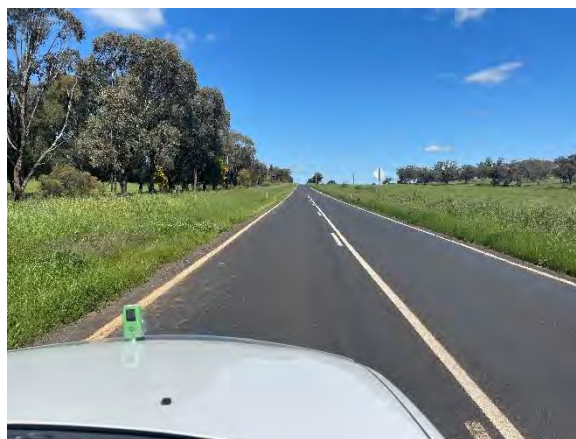
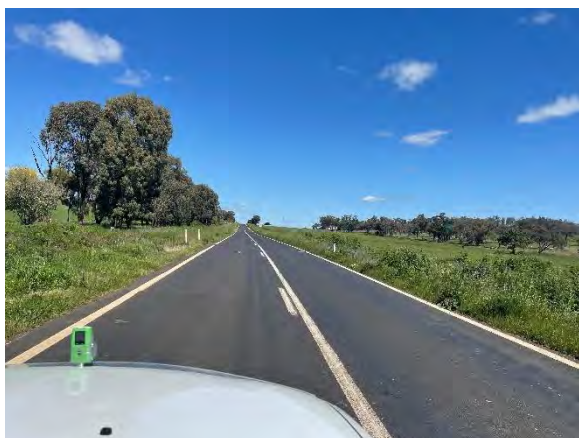








APPENDIX B – IMAGES OF GOOLMA ROAD – SOUTH BOUND















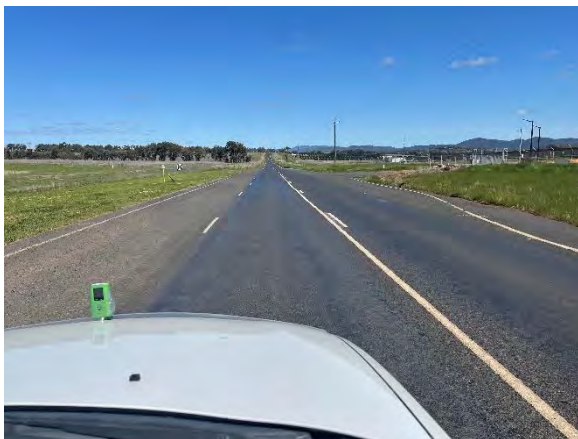


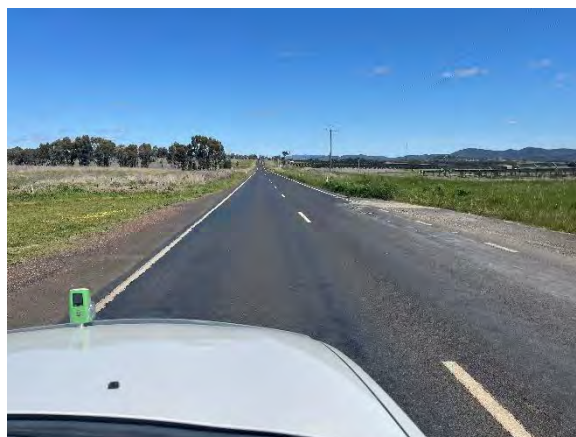












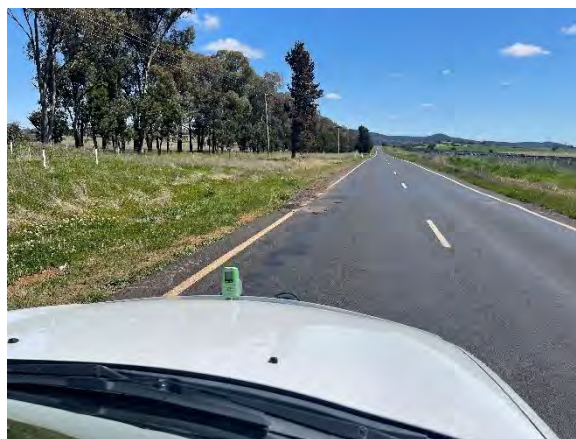




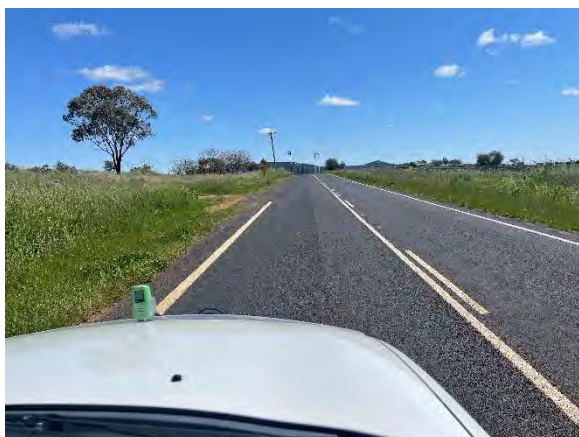
























APPENDIX C – IMAGES OF TWELVE MILE ROAD - EAST BOUND

























2.0 km



APPENDIX D – IMAGES OF TWELVE MILE ROAD - WEST BOUND



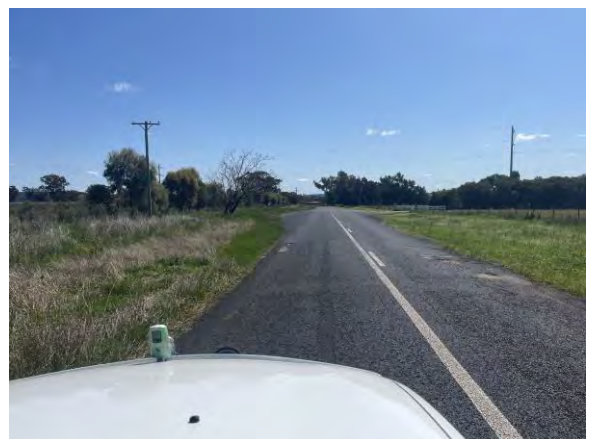










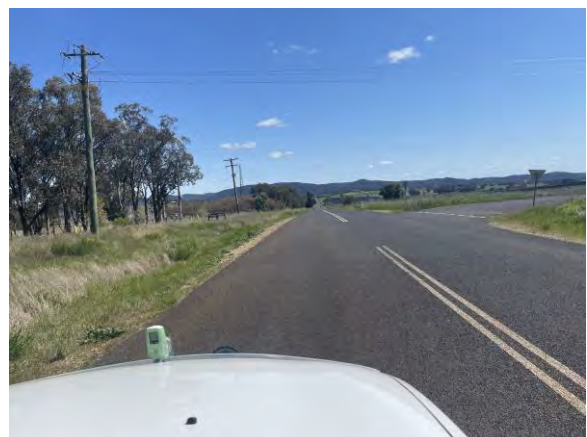














APPENDIX E – IMAGES OF MITCHELL HIGHWAY INTERSECTION







Appendix E

Seaway's Transport Compliance Management Policy and Chain of Responsibility and Driver Fatigue Management Policy Statement

Transport Compliance Management

INTRODUCTION

The safety of transport activities relating to a heavy vehicle is the shared responsibility of each party in the Chain of Responsibility. Each party in the chain must ensure, so far as is reasonably practicable, that transport activities relating to the vehicle are conducted safely. Below are links to each of the regulators that will provide more detailed information.

<https://www.nhvr.gov.au/safety-accreditation-compliance/chain-of-responsibility>

Transport Regulations are administered by the **National Heavy Vehicle Regulator (NHVR)**

<https://www.nhvr.gov.au/>

NHVR also administer the **National Heavy Vehicle Accreditations (NHVAS)** for the following Accreditations. SEAWAY Logistics operate under all **Three (3)** Accreditations.

<https://www.nhvr.gov.au/safety-accreditation-compliance/national-heavy-vehicle-accreditation-scheme>

- **Basic Fatigue Management (BFM)**
- **Mass Management (Heavy Vehicle Weights)**
- **Maintenance Management (Heavy Vehicle/Trailer Maintenance)**

In Western Australia, Main Roads administer all transport regulations and the **Heavy Vehicle Accreditation Scheme. (W.A.HVA)**.

<https://www.mainroads.wa.gov.au/UsingRoads/HVS/accreditation/Pages/home.aspx>

The **NTC (National Transport Commission)** is an independent statutory body that contributes to the achievement of national transport policy objectives by developing regulatory and operational reform of road, rail and intermodal transport. The NTC looks after all Dangerous Goods Legislation that applies to Road & Rail Transport **ADG 7.6**.

<https://www.ntc.gov.au/heavy-vehicles/rules-compliance/>

<https://www.ntc.gov.au/heavy-vehicles/rules-compliance/australian-dangerous-goods-code/>

IMO – the International Maritime Organization – is the United Nations specialized agency with responsibility for the safety and security of shipping and the prevention of marine and atmospheric pollution by ships. This body also administers the **IMDG Code** for movement of Dangerous goods via Marine Cargo (Shipping)

<http://www.imo.org/en/Publications/IMDGCode/Pages/Default.aspx>

(IATA) The International Air Transport Association is the trade association for the world's airlines, representing some 290 airlines or 82% of total air traffic. We support many areas of aviation activity and help formulate industry policy on critical aviation issues.

IATA Administer the Dangerous Goods Transportation by Air Freight.

<https://www.iata.org/whatwedo/cargo/dgr/pages/index.aspx>



CHAIN OF RESPONSIBILITY (CoR) and DRIVER FATIGUE MANAGEMENT POLICY STATEMENT

The aim of this policy statement is to reinforce Seaway's commitment to a safe working environment and to demonstrate compliance under Road Transport Legislation/Regulations in each jurisdiction that Seaway operates.

The health, safety and welfare of employees, contractors and the general public is of the utmost importance to Seaway and we are committed to prevention of injury and incident through Seaway Intermodal Framework and Fatigue Management program that ensures safe and healthy work practices.

All parties along the chain must take 'Reasonable Steps' to prevent a driver from driving while impaired or fatigued – an approach consistent with Current Occupational Health & Safety (OHS/WHs) Laws.

Seaway will demonstrate this commitment by:

- Taking steps to ensure contract companies, carriers, agents or taxi trucks engaged by Seaway are compliant with Fatigue Management and CoR Legislation
- Identifying responsibilities and providing training for all staff to ensure they have an understanding of their obligations under Fatigue Legislation and CoR
- Audits/spot checks to ensure Loading and Load Restraint Compliance
- Contingency plans to manage operational issues related to vehicle use are within the law
- Ensuring drivers are fit for duty (as far as Reasonably Practical)
- Rostering and scheduling of trips to facilitate compliance with Road Transport Regulations
- Ensuring Commercial relationships do not cause Seaway to breach CoR provisions in relation to fatigue
- Maintaining records in accordance to accreditations -National Heavy Vehicle Accreditation Scheme (NHVAS) - Mass, Maintenance and Fatigue
- Reporting all incidents and corrective actions; and
- Internal audits and reviews

The responsibility and maintenance of the Fatigue Management and Transport Compliance Programs under CoR rests with the Road Transport Managers and Distribution Centre Managers to ensure compliance within the organisation.

CRAIG McELVANEY – CHIEF EXECUTIVE OFFICER

OCTOBER 2019

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