



NGH



TRAFFIC MANAGEMENT PLAN

Gregadoo Solar Farm

December 2020

Project Number: 19-590



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ACRONYMS AND ABBREVIATIONS

CoC	Conditions of Consent
CEMP	Construction Environmental Management Plan
DECCW	Refer to OEH
DPIE	Department of Planning Industry and Environment (NSW) (Formally known as Department of Planning and Infrastructure (DPI))
EIS	Environmental Impact Statement
EMS	Environmental Management Strategy
EP&A Act	<i>Environmental Planning and Assessment Act 1979 (NSW)</i>
EPC	Engineering Procurement and Construction
HSEQ	Health Safety and Environment and Quality
ISEPP	<i>State Environmental Planning Policy (Infrastructure) 2007 (NSW)</i>
km	Kilometres
LGA	Local Government Area
m	Metres
NSW	New South Wales
NHVR	National Heavy Vehicle Regulator
RMS	Roads and Maritime Services (Now Transport for NSW)
TCPs	Traffic Control Plans
TfNSW	Transport for NSW (formally RMS)
TMP	Traffic Management Plan
The proponent	Gregadoo Solar Farm Pty Ltd
The Project	Gregadoo Solar Farm
vpd	Vehicle per day
vph	Vehicle per hour
WWCC	Wagga Wagga City Council

1. INTRODUCTION

1.1. PURPOSE AND OBJECTIVES

Gregadoo Solar Farm Pty Ltd (the proponent) received Planning approval on 11 December 2018 for the construction and operation of a 47 megawatt (MW) alternating current (AC) photovoltaic (PV) solar farm, located around 13 km south-east of Wagga Wagga within the Wagga Wagga Local Government Area (LGA). The Gregadoo Solar Farm ('the Project') is a State Significant Development (SSD 8825) and represents an important contribution to renewable energy generation in New South Wales.

This Traffic Management Plan (TMP) has been prepared to address the requirements of the mitigation and management measures listed in the *Gregadoo Solar Farm Environmental Impact Statement* (EIS) (NGH Environmental 2018), final amended Statements of Commitment (SoCs) listed in the Gregadoo Solar Farm Submissions Report and the Conditions of Consent (CoC) from the New South Wales, Minister for Planning. Additionally, it considers legislation, policies and guidelines applicable to traffic management. **This plan was approved by DPIE on the XX of XXXX 2020 (Appendix B).**

The purpose of this TMP is to provide a framework for the management of traffic issues during construction and operation of the Project. Implementing this TMP will ensure that the Project team meets the Project CoC, regulatory and policy requirements in a systematic manner and continually improves its performance. The TMP ensures requirements of the EIS are met.

In particular, the purpose of this TMP is to:

- Ensure appropriate planning for the transport of staff, supplies and equipment.
- Ensure appropriate controls and procedures are implemented during construction to avoid or minimise impacts on road traffic, including minimising traffic delays.
- Implement measures to ensure a high level of safety for all road users (employees, contractors, the general public).
- Maintain satisfactory property access.
- Minimise disturbance to the receiving environment.
- Ensure appropriate measures are implemented to address the measures detailed in the EIS, SoC and CoC.
- Ensure appropriate measures are implemented to comply with all relevant legislation and other requirements.
- To develop the TMP in consultation with the relevant road authorities and other organisations as required.

1.2. THE PROJECT

The scope of works under the contract includes all works necessary to design, construct, test, commission, energise, decommission, and train staff in the operation of an approximately 47 MW solar farm.

The scope of works consists of but is not limited to:

- Around 122,000 solar panels up to 2.8 metres (m) in maximum height, mounted on a single axis tracking system.
- Small operations and maintenance building with associated car parking.
- Upgrade of existing farm access point from Boiling Down Road.
- Internal access tracks.
- Eight inverter units, standing about 3.5 m above ground surface.
- Electrical substation along Boiling Down Road.
- Underground electrical cable reticulation.
- Security fencing and CCTV.
- Native vegetation planting for visual screening.
- Filling in three farm dams.
- Laydown area and security fencing.
- Underground 33 kilovolt (kV) or 132 kV transmission cables connecting the onsite substation to the Transgrid substation.

During construction, the Project site will be accessed from two access points, south of the Project site along Boiling Down Road. Boiling Down Road and its intersection with Ashfords Road will be upgraded in accordance with Traffic Design Group Australia suggestions and Wagga Wagga City Council requirements identified in the Traffic Impact Assessment in the Project's Environmental Impact Statement (EIS).

The construction period of the solar farm will last for up to 12 months from the commencement of site establishment work. Construction hours will be limited to Monday to Friday 7 am to 6 pm, and Saturday 8 am to 1pm. Night works are not anticipated to occur.

The estimated capital investment value of the Project is \$60.93 million.

1.3. ENVIRONMENTAL MANAGEMENT SYSTEM

The TMP is part of the Project's overall Environmental Management System (EMS). Mitigation and management measures identified in this TMP will be incorporated into site- or activity-specific Environmental Work Method Statements (EWMS).

Traffic Control Plans (TCPs) are to be finalised prior to works being undertaken. TCPs will implement specific controls that have been identified in this TMP. TCPs will specify the description, position, quantity, applicability, behaviour, and methodology of actions on the road network (on and off site), including speed limit alterations, road signage, junction upgrades, behaviour of drivers, control mechanisms, reporting, etc.

Used together, the EMS, TMP and other sub-plans, TCPs, procedures and EWMS form management guides that clearly identify required environmental management actions for reference by the proponent's personnel and contractors.

The review and document control processes for this plan are described in the EMS.

2. PLANNING

2.1. RELEVANT LEGISLATION AND GUIDELINES

2.1.1. Legislation

Legislation relevant to traffic management includes:

- *Roads Act 1993.*
- *Road Transport (Vehicle Registration) Regulation 2007.*
- *Road Transport (Mass, Loading and Access) Regulation 2005.*

The relevant provisions of the above legislation are explained in the EMS.

2.1.2. Guidelines and Standards

The main guidelines, specifications and policy documents relevant to this Plan include:

- *NSW RTA Heavy Vehicle Mass Limits, July 2010.*
- *RTA Vehicle Standards Information: Revision 4, November 2007.*
- *RTA Operating Conditions: specific permits for oversize and overmass vehicles: version 2, August 2008.*
- *Austroad's Guide to Traffic Management.*
- *Austroad's Guide to Road Design.*
- *Austroad's Guide to Road Safety.*
- *Austroad's Guide to Traffic Engineering Practice, Part 2 – Roadway Capacity.*
- *AS 1742: Manual of Uniform Traffic Control devices.*
- *AS 1743: Road Signs – Specifications.*
- *AS 2890: Parking facilities.*
- *RMS Guide to Traffic Control at WorkSites.*
- *RMS Supplements for Australian Standards.*
- *RMS Supplements for Guide to Road design.*
- *RMS Supplements for Guide to Road Safety.*

2.1.3. Conditions of Consent

Preparation of a TMP, prior to the commencement of construction is a requirement of Schedule 3, condition 8 of the CoC.

Prior to the commencement of construction, the Applicant must prepare a Traffic Management Plan for the development in consultation with RMS and Council, and to the satisfaction of the Secretary.

This TMP meets this requirement.

Each of the requirements of this condition and where they are addressed are detailed in Table 2-1 below. The SoC from the Submissions Report and where they are addressed are detailed in Table 2-2.

Table 2-1 Schedule 3 of the CoC and where it is addressed in this plan.

CoC	Condition requirement	Location
Over-Dimensional and Heavy vehicle restrictions		
2	The Applicant must ensure that the: (a) development does not generate more than: 20 heavy vehicle movements a day during construction, upgrading or decommissioning; 2 over-dimensional vehicle movements during construction, upgrading or decommissioning; 6 heavy vehicle movements a day during operations on the public road network; (b) length of any vehicles (excluding over-dimensional vehicles) used for the development does not exceed 19 metres, unless the Secretary agrees otherwise.	Section 4.4, Section 4.5
3	The Applicant must keep accurate records of the number of heavy vehicles entering or leaving the site each day.	Section 8.3 Appendix D
Designated Over-Dimensional and Heavy Vehicle Access Route		
4	All over-dimensional and heavy vehicles associated with the development must travel to and from the site via the Sturt Highway, Bakers Lane, Inglewood Road, Mitchell Road, Ashfords Road, Boiling Down Road and the approved site access point, as identified in the figure in Appendix 1 (Appendix A of this plan). <i>Note: The Applicant is required to obtain relevant permits under the Heavy Vehicle National Law (NSW) for the use of over-dimensional vehicles on the road network.</i>	Section 4.3 Appendix A
Road upgrades		
5	Prior to the commencement of construction, the Applicant must: (a) upgrade the intersection of Mitchell Road and Ashfords Road, including providing a Basic Right Turn Treatment (BAR); and (b) upgrade the intersection of Ashfords Road and Boiling Down Road, including sealing Boiling Down Road a minimum length of 30 m from its intersection with Ashford's Road, in accordance with the Austroads Guide to Road Design, to the satisfaction of the relevant roads authority.	Section 6.2 Appendix C
Site Access		
6	Prior to the commencement of construction, the Applicant must upgrade the site access point off Boiling Down Road (shown in Appendix 1) with a Rural Property Access type treatment to cater for the largest vehicle accessing the site, in accordance with the Austroads Guide to Road Design, to the satisfaction of Council.	Section 5 Section 6.2 Section 7
Operating conditions		

CoC	Condition requirement	Location
7	The Applicant must ensure: (a) the internal roads are constructed as all-weather roads; (b) there is sufficient parking on site for all vehicles, and no parking occurs on the public road network in the vicinity of the site; (c) the capacity of the existing roadside drainage network is not reduced; (d) all vehicles are loaded and unloaded on site, and enter and leave the site in a forward direction; and (e) development-related vehicles leaving the site are in a clean condition to minimise dirt being tracked onto the sealed public road network.	Section 5 Section 6.3 Section 4.3 Section 7
Traffic Management Plan		
8	Prior to the commencement of construction, the Applicant must prepare a Traffic Management Plan for the development in consultation with RMS and Council, and to the satisfaction of the Secretary. This plan must include: (a) details of the entire transport route to be used for development-related traffic, including the location of access points; (b) a protocol for undertaking independent dilapidation surveys to assess the: • existing condition of local roads on the transport route prior to construction, upgrading or decommissioning activities; and • condition of local roads on the transport route following construction, upgrading or decommissioning activities; (c) a protocol for the repair of any local roads identified in the dilapidation surveys to have been damaged during construction, upgrading or decommissioning works; (d) details of the road upgrade works required by condition 5 of Schedule 3; (e) details of the measures that would be implemented to minimise traffic safety issues and disruption to local users of the transport route during construction, upgrading or decommissioning works, including: • temporary traffic controls, including detours and signage; • notifying the local community about project-related traffic impacts; • procedures for receiving and addressing complaints from the community about development-related traffic; • minimising potential for conflict with school buses and other motorists as far as practicable; • scheduling of haulage vehicle movements to minimise convoy length or platoons; • responding to local climate conditions that may affect road safety such as fog, dust and wet weather; • responding to any emergency repair or maintenance requirements; and • a traffic management system for managing over-dimensional vehicles; and (f) a driver's code of conduct that addresses: • travelling speeds;	This report Section 1 Section 3 Section 4, Section 6.2 Section 6 Section 7 Appendix D Appendix E

CoC	Condition requirement	Location
	- driver fatigue; - procedures to ensure that drivers adhere to the designated transport route/s; and - procedures to ensure that drivers implement safe driving practices Following the Secretary's approval, the Applicant must implement the Traffic Management Plan.	

Table 2-2 SoC's from the submissions report and where it is addressed in this plan.

SoC	Commitment requirement	Location
TT1	A Haulage Traffic Management Plan (HTMP) shall be prepared in consultation with the relevant road authorities and outline measures to manage traffic related issues associated with the development, particularly during the construction and decommission processes. The appointed transport contractor shall be involved in the preparation of this plan. The plan shall address all light and heavy traffic generation to the development site and detail the potential impacts associated with the development, the mitigation measures to be implemented, and the procedures to monitor and ensure compliance. This plan shall address, but not necessarily be limited to the following; - Require that delivery of components to the site be via the route adopted and approved as part of the Traffic Management Plan. This route shall not include the use of Elizabeth Avenue. - Details of traffic routes to be used by heavy and light vehicles, and any associated impacts and any road-specific mitigation measures. - Details of measures to be employed to ensure safety of road users and minimise potential conflict with project generated traffic, - Proposed hours for construction activities, as night time construction presents additional traffic related issues to be considered. - The management and coordination of the movement of vehicles for construction and worker related access to the site and to limit disruption to other motorists, emergency vehicles, school bus timetables and school zone operating times. - Loads, weights and lengths of haulage and construction related vehicles and the number of movements of such vehicles - Procedures for informing the public where any road access will be restricted as a result of the project. - Any proposed precautionary measures such as signage to warn road users such as motorists about the construction activities for the project.	This report Section 4

SoC	Commitment requirement	Location
	- A Driver Code of Conduct to address such items as appropriate driver behaviour including adherence to all traffic regulations and speed limits, safe overtaking and maintaining appropriate distances between vehicles, etc and appropriate penalties for infringements of the Code. - Details of procedures for receiving and addressing complaints from the community concerning traffic issues associated with truck movements to and from the site.	
TT2	A Traffic Management Plan would be developed and implemented during construction and decommissioning. The plan would include, but not be limited to: - Prior to construction, a pre-conditioning survey of the relevant sections of the existing road network, to be undertaken with Council. - Assessment of road condition prior to construction on all local roads that would be utilised. - A program for monitoring road condition, to repair damage exacerbated by the construction and decommissioning traffic. - The designated routes of construction traffic to the site. - Carpooling/shuttle bus arrangements to minimise vehicle numbers during construction. - Scheduling of deliveries. - Community consultation regarding traffic impacts for nearby residents. - Consideration of cumulative impacts. - Traffic controls (speed limits, signage, etc.). - Procedure to monitor traffic impacts and adapt controls (where required) to reduce the impacts. - Providing a contact phone number to enable any issues or concerns to be rapidly identified and addressed through appropriate procedures. - Water to be used on unsealed roads to minimise dust generation through increased traffic use.	This report Section 4 Section 6 Section 7 Appendix D
TT3	The proponent would consult with Wagga Wagga City Council regarding the proposed upgrade to the intersection of Mitchell Road and Ashfords Road to allow for a Basic Right Turn (BRT) turning treatment. The upgrade would be subject to detailed design and would be designed and constructed to the relevant Australian road design standards.	This report Section 3 Appendix B
TT4	The proponent would consult with Wagga Wagga City Council regarding the proposed upgrade to the intersection of Ashfords Road and Boiling Down Road to be widened slightly on the eastern side of Ashfords Road to accommodate the movement of heavy vehicles. The upgrade would be subject to detailed design and would be designed and constructed to the relevant Australian road design standards.	This Report Section 3 Appendix B

SoC	Commitment requirement	Location
TT5	The proponent would upgrade and repair any damage resulting from project traffic (except that resulting from normal wear and tear) as required at the proponent's cost. All works to upgrade or repair any road, its associated road reserve and any public infrastructure in that road reserve, must be to a standard suitable for use by heavy vehicles to meet any reasonable requirements that may be specified by the relevant roads authority. The design and specifications, and construction, of these works must be completed and certified by an appropriately qualified person to be to a standard to accommodate the traffic generating requirements of the project. On Classified Roads the geometric road design and pavement design must be to the satisfaction of the RMS.	This report Section 6 Section 7
TT6	Construction, operational and decommissioning traffic is not to deter from the approved heavy vehicle access route (Sturt Hwy, Elizabeth Avenue ¹ , Bakers Lane, Inglewood Road, Mitchell Road and Ashfords Road). Access via Gregadoo Road and Redbank Road is not permitted at any time.	This report Section 4.3
TT7	Glint and glare from the solar panels shall not cause a nuisance, disturbance or hazard to the travelling public on the public road network. In the event of glint or glare from the solar plant being evident from a public road, the proponent shall immediately implement glare mitigation measures such as establishment of a barrier (e.g. fence, advanced plantings) or other approved device to remove any nuisance, distraction and/or hazard caused as a result of glare from the solar panels.	Section 5 Section 7
TT8	A Dilapidation report of Ashford's Road and Boiling Down Road prior to commencement of works is required to assist in monitoring of road condition. Roads would require repair throughout and on completion of construction.	This report Section 7 Section 8
TT9	An assessment of the condition of the culvert on Boiling Down Road is required due to an increase in traffic load.	Section 6.2 Section 7

¹ Elizabeth Avenue was not approved for heavy vehicles by TfNSW, and thus SoC TT6 was incorrect (Ref: Shelley McPhee, 15 September 2020, comments on Greagdoo Traffic Management Plan ReviewTable)

3. CONSULTATION

3.1. WAGGA WAGGA CITY COUNCIL

On 2nd March 2020, NGH emailed Wagga Wagga City Council (WWCC) a copy of the draft TMP to provide WWCC the opportunity to review and provide comment on further issues to be addressed. WWCC provided a response via email on 6th April 2020. WWCC requested that the TMP addresses a number of issues relating to OSOM haulage routes, staging of deliveries, road occupancy licences and remediation actions. These issues are summarised in Appendix B with the location of information in this Plan addressing the requirements of WWCC.

3.2. TRANSPORT FOR NSW

On 2nd March 2020, NGH emailed Transport for NSW (TfNSW) a copy of the draft TMP to provide TfNSW the opportunity to review and provide comment on further issues to be addressed. TfNSW provided a response via email on 24th March 2020. TfNSW requested that the TMP addresses a number of issues relating to road dilapidation surveys, driver fatigue, drivers code of conduct, staging of deliveries and Traffic Control Plans (TCPs). These issues are summarised in Appendix B with the location of information in this Plan addressing the requirements of TfNSW.

3.3. DEPARTMENT OF PLANNING, INDUSTRY AND ENVIRONMENT

In August 2020, NGH uploaded a copy of the TMP to the Major Projects Planning Portal to provide DPIE the opportunity to review and provide comment on further issues to be addressed. DPIE provided a response via the portal on 17 September 2020. DPIE requested that the TMP address a number of issues, including those related to monitoring, maintenance, and haulage routes.

The updated TMP was uploaded to the portal in October 2020. DPIE provided further comment on the TMP via the portal on 11 December 2020. DPIE requested that the TMP further address timing of local road inspections and complaints procedures

These issues are summarised in Appendix B with the location of information in this Plan addressing the requirements of DPIE.

4. CONSTRUCTION TRAFFIC ACTIVITIES

4.1. EXISTING ENVIRONMENT

The Gregadoo SF is bounded by Boiling Down Road to the south, Redbank Road to the west and Ashford's Road to the east (refer Figure 4-1). The proposed haulage route within the local road network includes Bakers Lane, Inglewood Road, Mitchell Road and Ashfords Road.

Bakers Lane, Inglewood Road, Mitchell Road and Ashfords Road are all sealed local roads managed by WWCC. They all have one lane traffic in each direction with varying widths of 6.0 to 7.0 m, and speed limits on these roads vary between 80 km/hr to 100 km/hr. Ashfords Road provides primary access to the Gregadoo Waste Management Centre, south of the site. Boiling Down Road is an unsealed road and runs from Ashfords Road in the east to Plumpton road in the west. It has a varying road width of 6.0 to 7.2 m.

Bakers Lane is accessed from the Sturt Highway. The Sturt Highway is a State Highway managed by TfNSW. It is a single carriageway with a speed limit of 100 km/h. Within the vicinity of the intersection between Bakers Lane and the Sturt Highway, the Sturt Highway has a speed limit of 80 km/h.

The entrance to the site would be constructed off Boiling Down Road, approximately 760 m west of the intersection with the Ashfords Road. All vehicular traffic associated with the Project will enter and exit the site via the site entry point on Ashfords Road (Appendix A). Prior to the commencement of construction, the intersection of Ashfords Road and Boiling Down Road will be upgraded to a sealed road with a minimum length of 30 m from the intersection with Ashfords Road. The site access point off Boiling Down Road will be upgraded with a Rural Property Access type treatment to accommodate for the largest vehicle accessing the site.

All construction traffic activities will consider the high-speed environment of the Sturt Highway, Bakers Lane, Inglewood Road, Mitchell Road and Ashfords Road.

The construction phase of the Project will result in a short-term increase in the volume of traffic movements to the site. The construction phase will continue for a period of approximately six to nine months for the solar farm, with the peak traffic volumes between two and three months from commencement of construction.

4.2. PROPOSED DELIVERY ROUTES – TRANSPORTATION OF STAFF

Up to 150 workers will be on the project site during peak construction. It is anticipated that most workers would be accommodated at existing accommodation within the local area, and most staff will travel to the Site on a daily basis from neighbouring towns (Table 4-1).

Table 4-1 Travel time and distance from neighbouring towns to the Project site.

Location	Travel distance to Project site (km)	Travel time to Project site
Wagga Wagga (CBD)	16	20 min
Gumly Gumly	11	10 min
Forest Hill	12	11 min
Junee	48	39 min
Coolamon	54	42 min
Collingullie	34	28 min
The Rock	31	27 min

Staff will travel in light vehicles, and car-pooling will be actively encouraged. Shuttle buses will be provided to transport staff to/from Wagga Wagga CBD. Travel by bus would not be mandatory but would be strongly encouraged. All vehicles (shuttle buses and light vehicles) will travel to the project site via Ashford's Road and Boiling Down Road, and enter the project site via the main site access point (Figure 4-1).

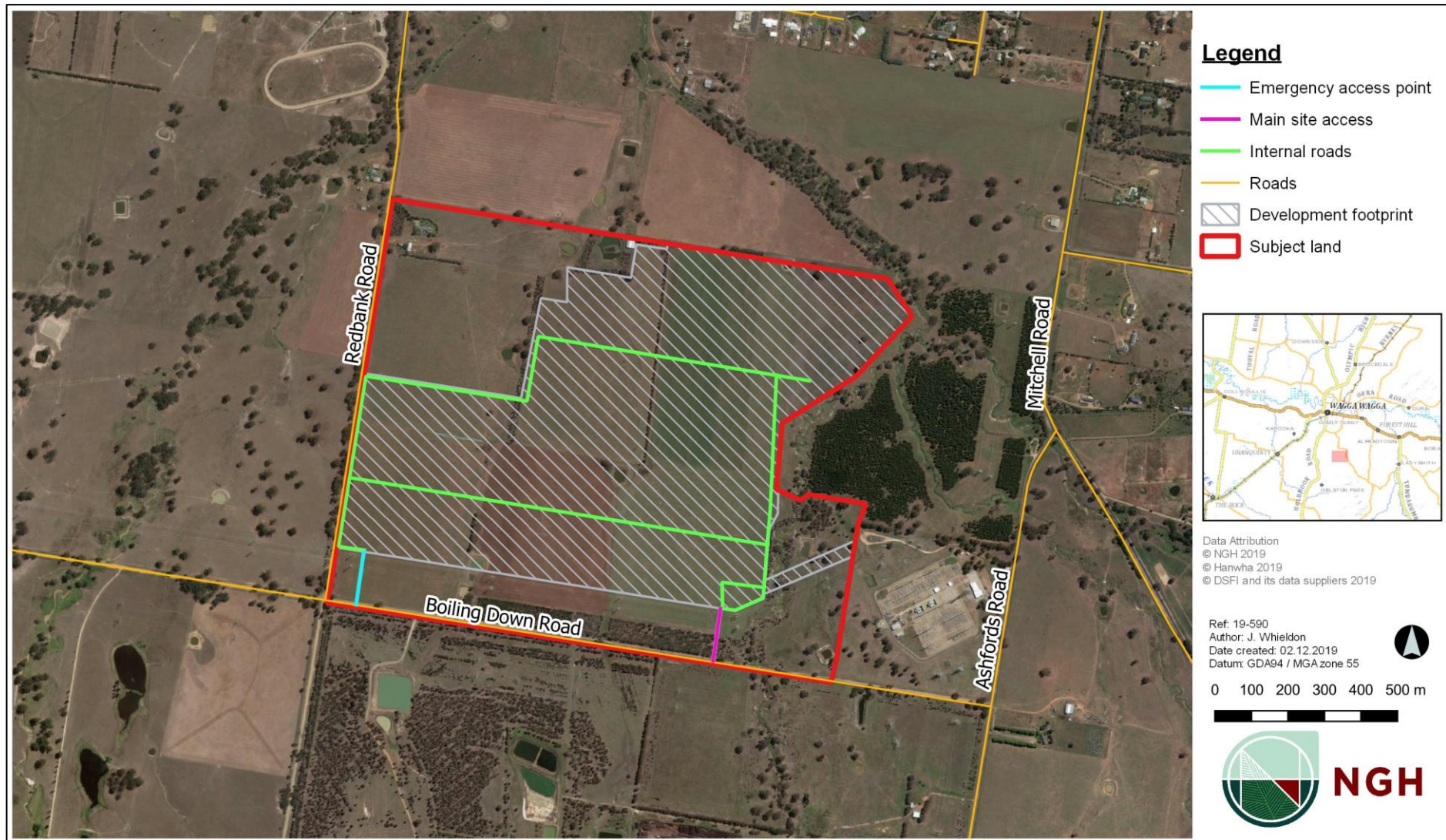


Figure 4-1 Site access points.

4.3. PROPOSED DELIVERY ROUTES –MATERIALS AND INFRASTRUCTURE

Services and small deliveries are most likely to be sourced from Wagga Wagga, Sydney or Melbourne.

Gravel, sand and concrete will be sourced from suppliers in Wagga Wagga, Sydney and/or Melbourne. Metal components and glass for solar panels will be transported to the Project site by road generally in shipping containers.

The 12 minimize route for deliveries by road from Port Botany, Sydney and Melbourne Freight Centre, will depend on the type of heavy vehicle and its heavy vehicle approved route. Heavy vehicles used for deliveries during construction can be up to 19m in length. There are two heavy vehicle approved routes applicable to this Project, detailed below. All drivers will be informed of these haulage routes and these are to be included in the contractors 'Drivers Code of Conduct' (refer Appendix E). All heavy vehicles will enter the Project site in a forward direction via the main site access point (Figure 4-1). Elizabeth Avenue, Gregadoo Road and Redbank Road will not be used as part of Project's haulage route.

Delivery route for vehicles 19 m in length from Port Botany, Sydney:

- Bumborah Point Road, Port Botany.
- Botany Road to Foreshore Road.
- Foreshore Road to M1 General Holmes Drive.
- M1 General Holmes Drive to M5 east South-Western Motorway.
- M5 South-Western Motorway to A28 Hume Highway.
- A28/M31 Hume Highway to A20 Sturt Highway.
- A20 Sturt Highway to Bakers Lane.
- Bakers Lane to Inglewood Road.
- Inglewood Road to Mitchell Road.
- Mitchell Road to Ashfords Road.
- Ashfords Road to Boiling Down Road.

The route is around 456 km in length and is illustrated in Figure 4-2 below.

Delivery route for vehicles 19m in length from Melbourne Freight Centre:

- Dynon Road to Citylink.
- Citylink to Tullamarine Freeway.
- Tullamarine Freeway to Western Ring Road.
- Western Ring Road to Metropolitan Ring Road.
- Metropolitan Ring Road Hume Freeway.
- Hume Freeway to Hume Highway.
- Hume Highway to Sturt Highway.
- Sturt Highway to Bakers Lane.
- Bakers Lane to Inglewood Road.
- Inglewood Road to Mitchell Road.
- Mitchell Road to Ashfords Road.
- Ashfords Road to Boiling Down Road and the approved site access point.

The route is around 482 km in length and is illustrated in Figure 4-3 below.

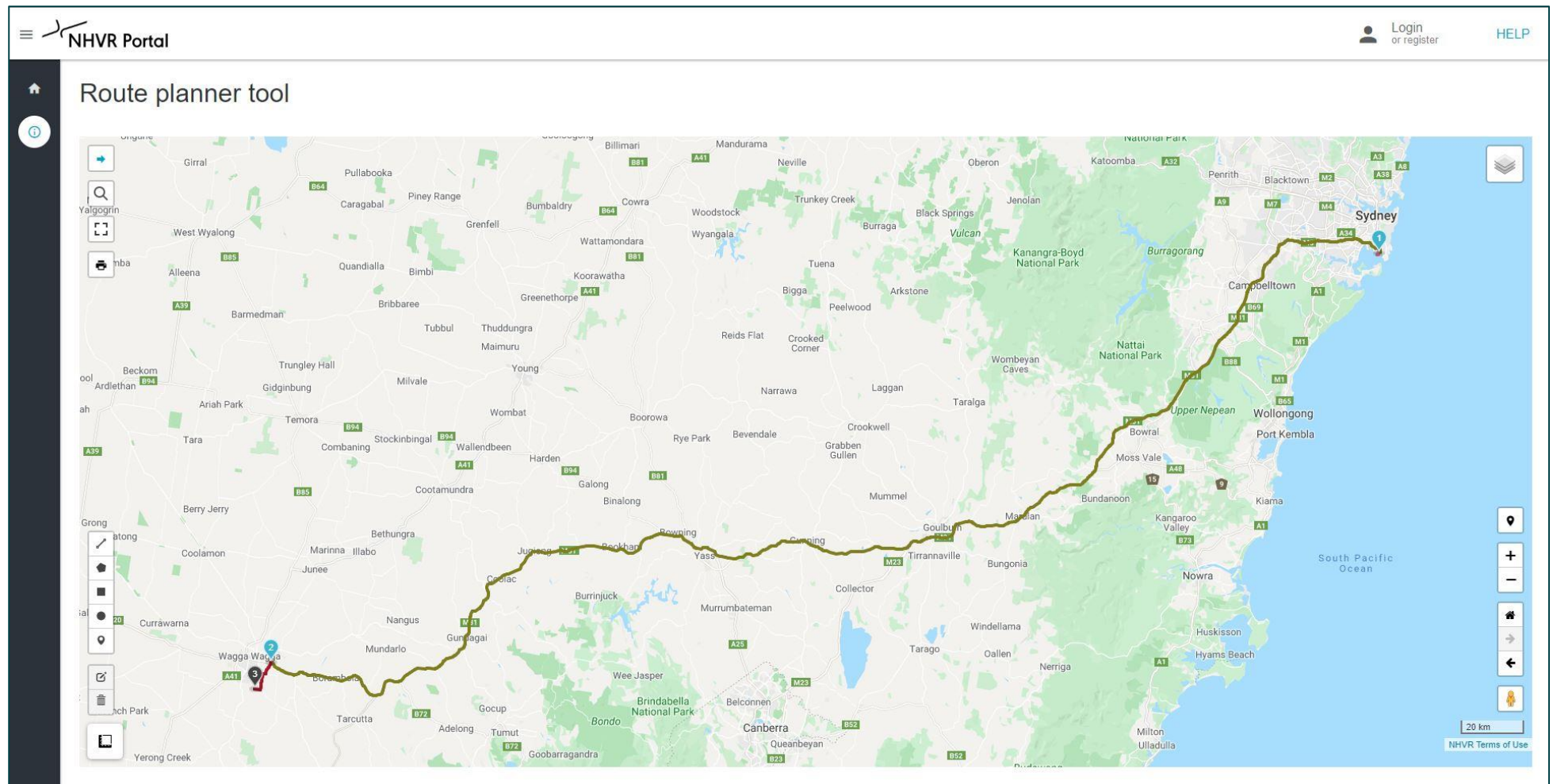


Figure 4-2 Delivery route for vehicles 19m in length from Port Botany, Sydney to the Project site.

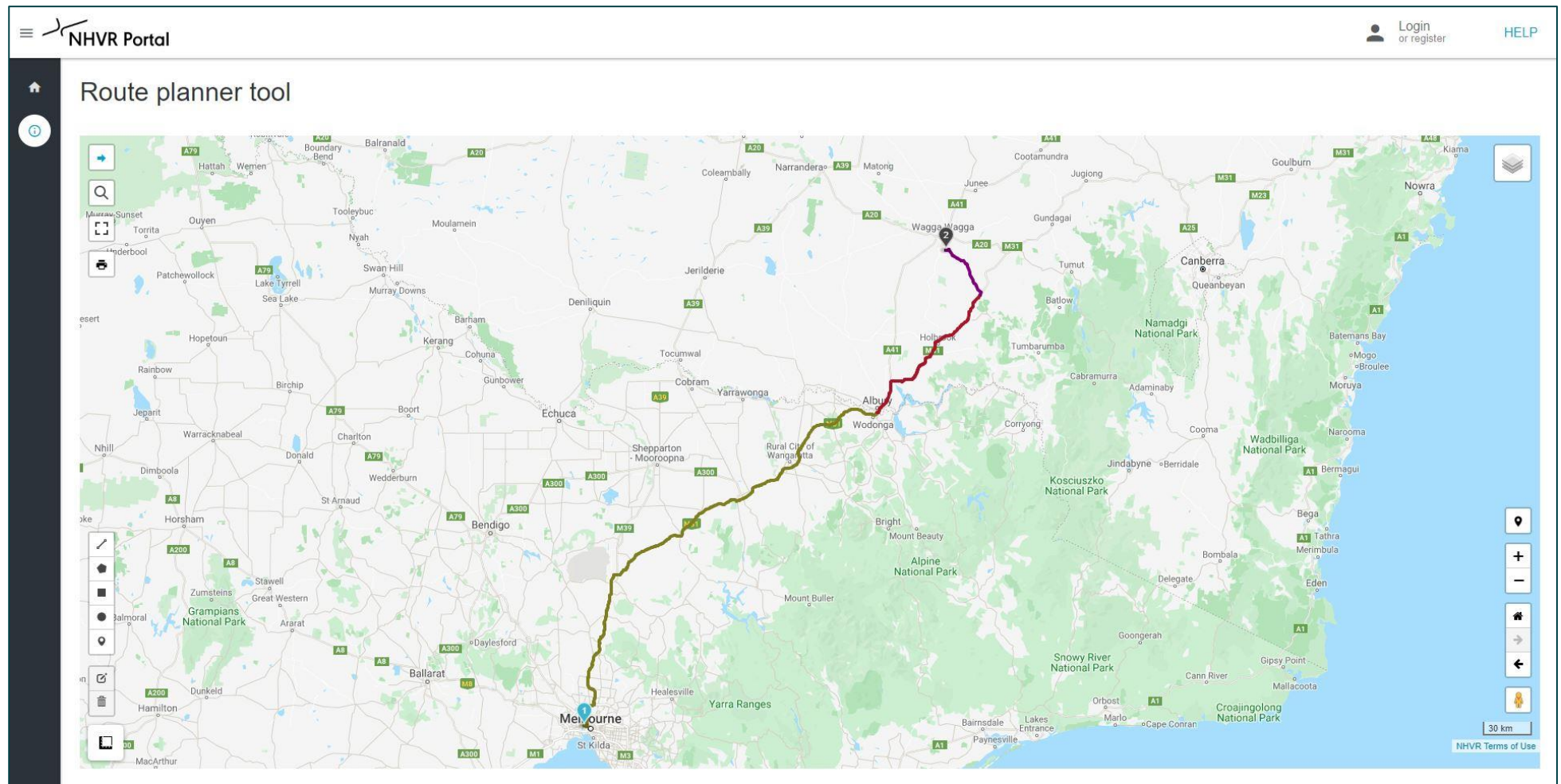


Figure 4-3 Delivery route for vehicles 19m in length from Melbourne to the Project site.

During construction, oversize/overmass vehicles (OSOM) may be required for the delivery of larger items that are not able to be broken down into smaller components, such as mobile cranes. A Class 1 Notice or Ministerial Order will be required for OSOM vehicles to operate on the NSW and Victorian road network. The application for a Class 1 Notice or Ministerial Order will be made through the NHVR.

With a Class 1 Notice or Ministerial Order, the approved haulage route for an OSOM vehicle on the NSW and Victorian road network applicable to this Project is detailed below. All heavy vehicles will enter the Project site via the main site access point (Figure 4-1). OSOM movements would occur outside peak traffic and school bus hours (8am to 9:30am in urban area and 7:30am to 9am in rural areas).

OSOM vehicle route for deliveries from Port Botany, Sydney:

- Bumborah Point Road, Port Botany to Port Botany Road.
- Botany Road to Foreshore Road.
- Foreshore Road to M1 General Holmes Drive.
- M1 General Holmes Drive to M5 South-Western Motorway.
- M5 South-Western Motorway to M7 (will require a specific permit before travelling on this section between Sydney Airport and Beverly Hills), or continue along General Holmes Drive onto The Grand Parade, then to Princes Highway via President Avenue.
- Princes Highway to M5 South-Western Motorway via King Georges Road.
- M5 South-Western Motorway to M31 Hume Motorway.
- M31 Hume Motorway to A20 Sturt Highway.
- A20 Sturt Highway to Bakers Lane.
- Bakers Lane to Inglewood Road.
- Inglewood Road to Mitchell Road.
- Mitchell Road to Ashfords Road.
- Ashfords Road to Boiling Down Road.

The route is around 485 km in length and is illustrated in Figure 4-4 and Figure 4-5 below.

OSOM vehicle route for deliveries from Melbourne Freight Centre:

- Dynon Road to Citylink.
- Citylink to Tullamarine Freeway.
- Tullamarine Freeway to Western Ring Road.
- Western Ring Road to Metropolitan Ring Road.
- Metropolitan Ring Road Hume Freeway.
- Hume Freeway to Hume Highway.
- Hume Highway to Sturt Highway.
- Sturt Highway to Bakers Lane.
- Bakers Lane to Inglewood Road.
- Inglewood Road to Mitchell Road.
- Mitchell Road to Ashfords Road.

Ashfords Road to Boiling Down Road and the approved site access point, The route is around 482 km in length and is illustrated in Figure 4-6 and Figure 4-7 below.

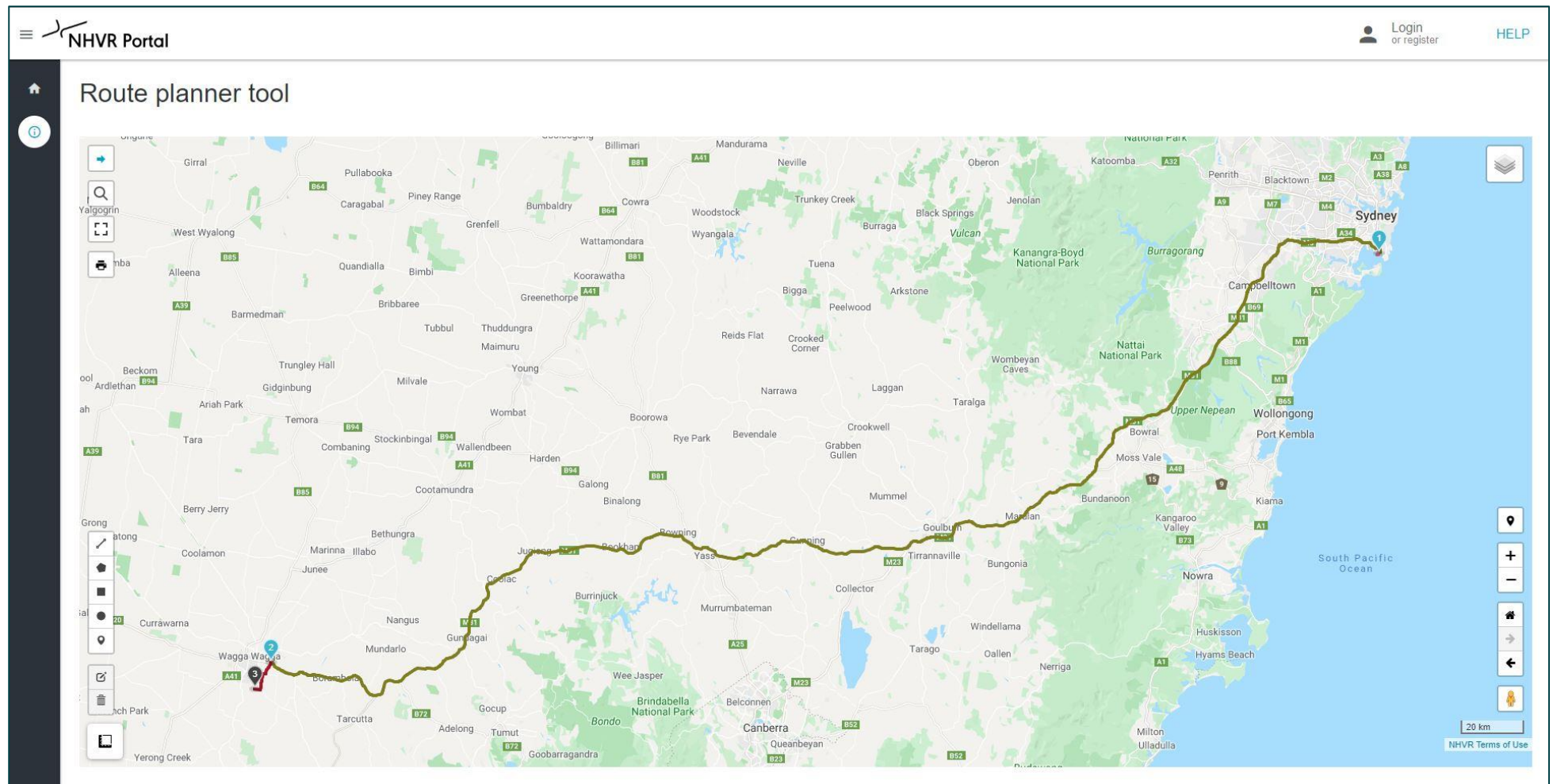


Figure 4-4 OSOM road transport route from Port Botany, Sydney to the Project site (NHVR 2019).

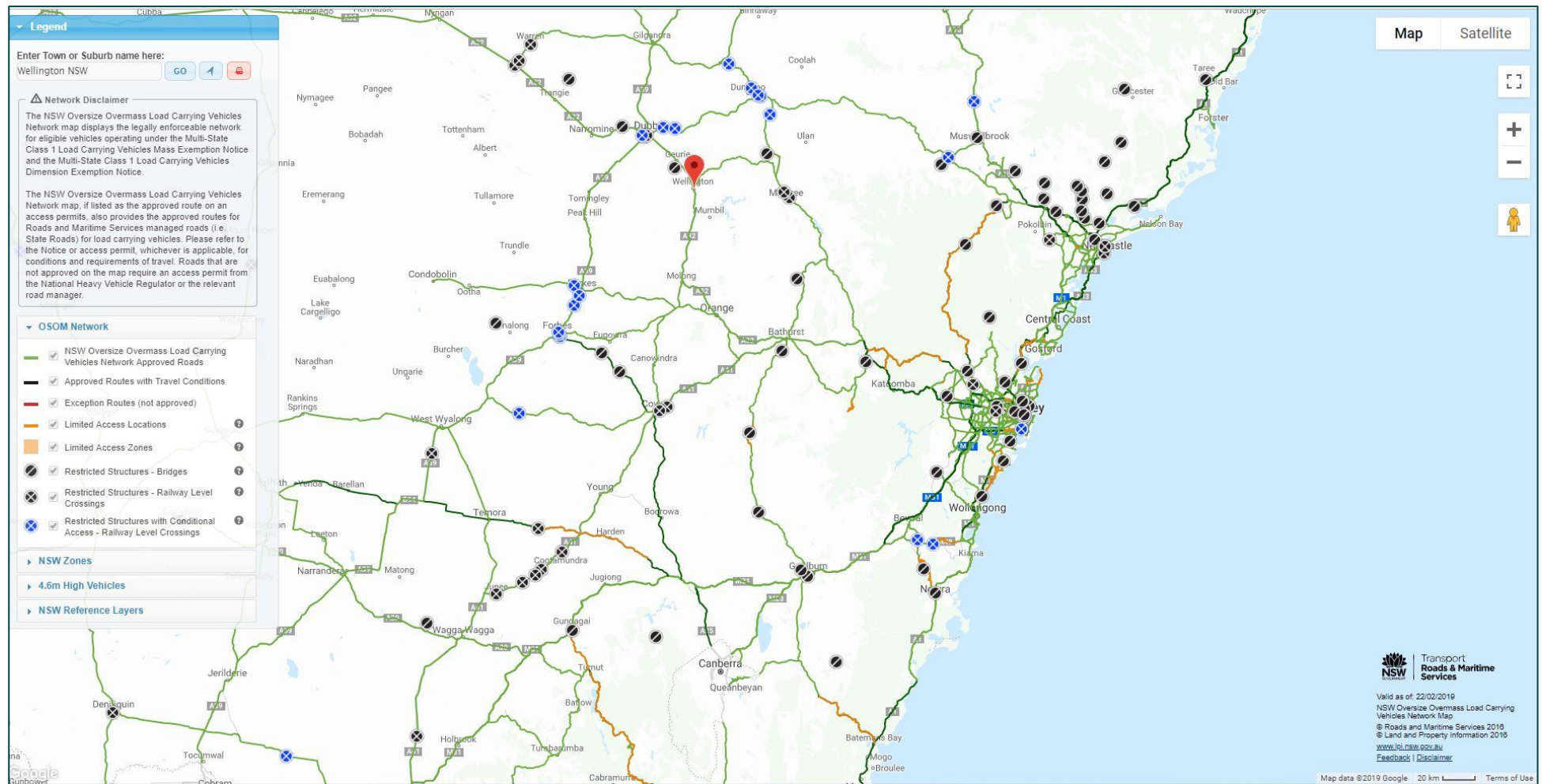


Figure 4-5 OSOM TfNSW approved haulage routes for NSW (Roads and Maritime Services 2019).

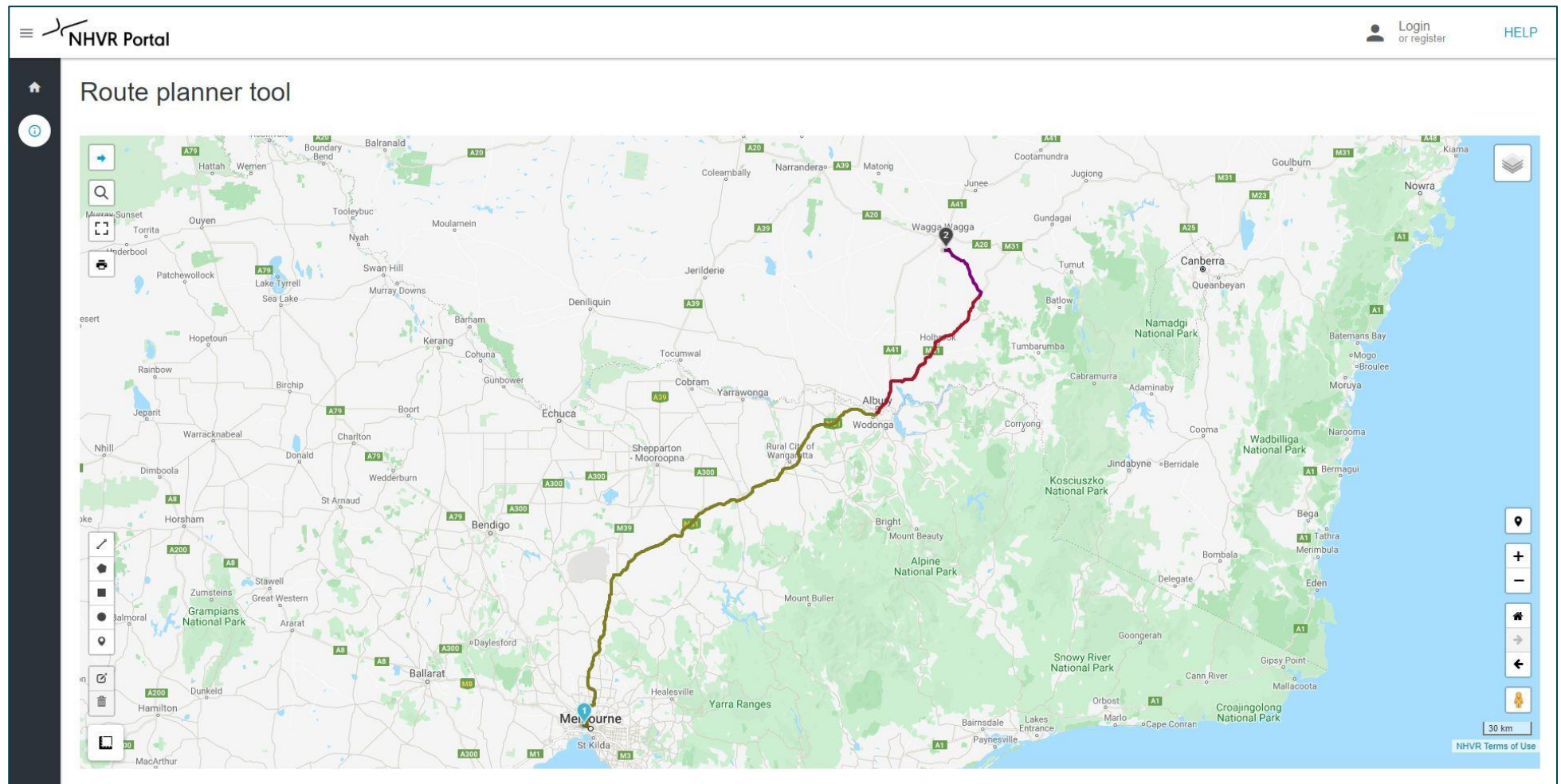


Figure 4-6 OSOM road transport route from Melbourne Freight Centre to the Project site (NHVR 2019).

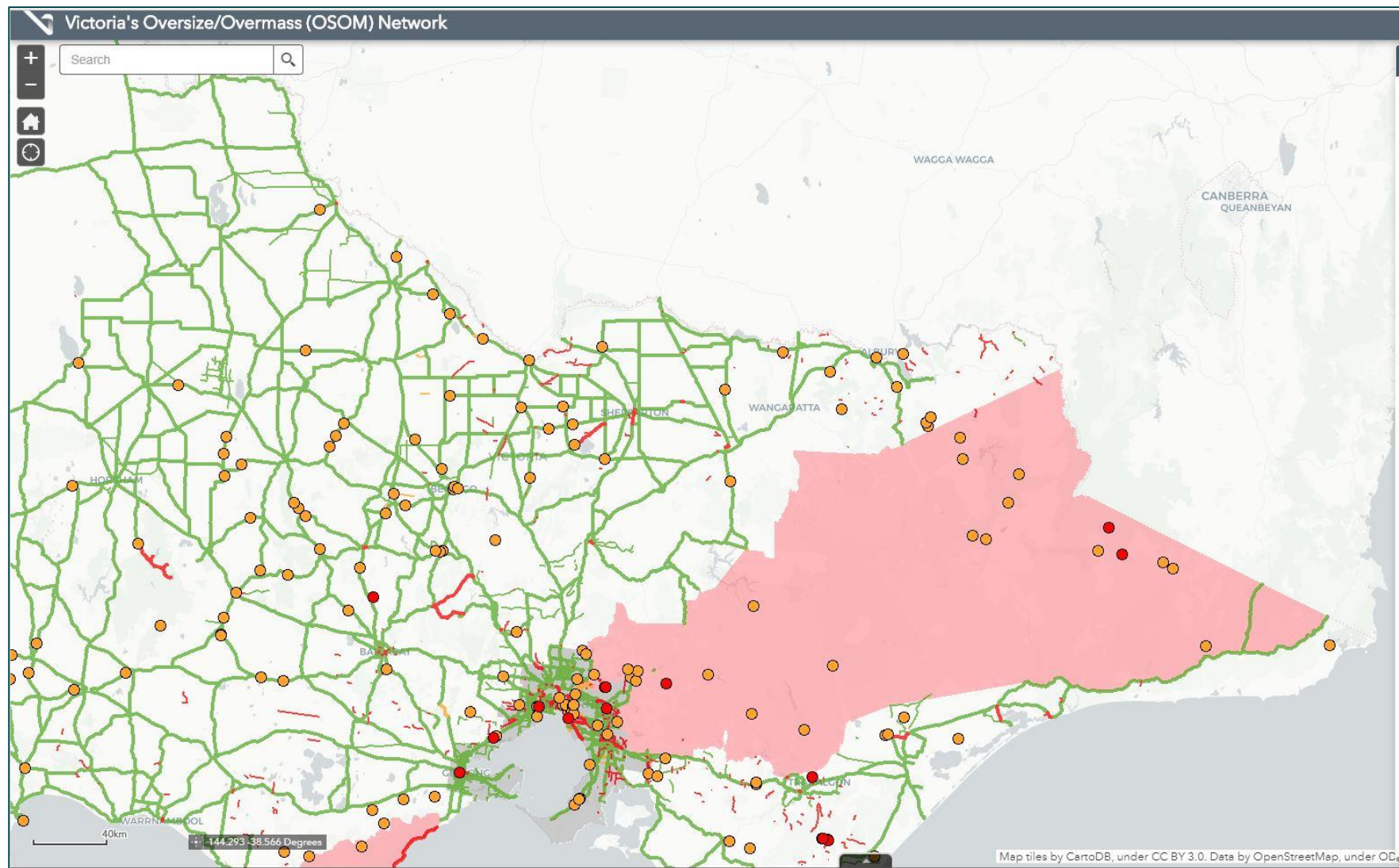


Figure 4-7 OSOM VicRoads approved haulage routes for Victoria (VicRoads 2019).

Project water will be sourced locally from Riverina Water County Council and would be trucked to the site on an as-needs basis. The Project would require around 8,000 kL over a 9-month period for dust suppression, which would be sourced from on site farm dams or a local council standpipe if the dams diminished below an acceptable level. Dust suppression includes the watering of unsealed roads and possibly other construction related activities that cause dust disturbance. Potable water requirements for staff during construction would be approximately 54 kL over the 9-month construction period. Non-potable water would be trucked to the site on as needs basis and stored within temporary water tanks at the staff amenities area.

All equipment and goods will be delivered via the nominated site construction compound. Deliveries will be recorded on the delivery record sheet (Appendix D) at the time of delivery by the site engineer or delegate. When recorded the delivery will be dispatched to the relevant site laydown area or materials storage area as directed by the site engineer or delegate. All deliveries to and from the site will be loaded and unloaded on the site.

All delivery vehicles will enter and leave the site in a forward direction. Deliveries are to be staged to ensure queuing at the site access point and along site access roads does not occur. No vehicles are to queue or stop within the road reserve. All arriving vehicles are to stop as directed once they have entered the site and are not on any public road reserve. The unloading of vehicles on adjacent land or public roads will not occur unless directed by NSW Police or other emergency services.

4.4. TRAFFIC VOLUMES

4.4.1. Existing Traffic

A combination of publicly available data and specific traffic counting was conducted as part of the EIS to determine the typical traffic volumes on roads surrounding the Project (refer to Section 7.3 of the EIS). The most recent traffic volumes for sections of Mitchell Road and Ashfords Road was obtained from Wagga Wagga City Council. TDG (2018) assumed a growth of 2% per year to estimate current volumes of traffic. Gregadoo Waste Management Centre (GWMC) provided vehicle data to TDG (2018) for February 2018. Refer Table 4-2 below.

Table 4-2 Recorded traffic volumes

Location	Two-way average vpd (vehicle per day)	Current two-way average vpd (assuming 2% growth).
Mitchell Road (between Ashfords Road and Gregadoo Road) (WWCC 2010)	881	1030
Ashfords Road (south of Gregadoo Road) (WWCC, 2005)	485	625
Ashfords Road heavy vehicle use (GWMC February 2017)	36	-
Ashfords Road passenger vehicle use (GWMC October 2017)	158	161
Boiling Down Road heavy vehicle use (GWMC, February 2018).	8	-

There is an estimated two-way peak of 103 vehicles per hour (vph) on the section of Mitchell Road and an estimated two-way peak hourly volume of 63 vph on the section of Ashfords Road (TDG, 2018) Passenger vehicle data for October 2017 showed that the GWMC generated 158 vpd on an average weekday (TDG, 2018).

4.4.2. Construction Traffic

The planned timeline for the Project indicates that around 50 employees will be required in the first month of construction, increasing to 150 employees on site during the peak construction period (approximately 3 – 4 months) (refer Table 4-3).

During the construction period, it is estimated that about 380 shipping containers will be required to deliver the solar farm infrastructure. It is anticipated that delivery of the infrastructure and equipment will occur over a period of two months at the beginning of construction. This represents an average of approximately 10 trucks accessing the site per day (20 heavy vehicle movements) during the peak construction period (TDG, 2018). There will only be 2 over-dimensional vehicle movements per day.

Table 4-3 Summary of the estimated construction traffic volumes during peak and non-peak times (TDG, 2018).

Vehicle Type	Vehicle movements per day (peak construction: 3-4 months)
Light vehicles (car/utility/mini bus)	60
Heavy vehicles (including oversize/overmass vehicles)	20
Total	80

A number of oversize/overmass vehicles will be required for equipment such as a mobile crane, the transformer and poles for the overhead transmission line. These will be transported safely in compliance with all regulations and be accompanied by a special convoy.

Construction plant and equipment will primarily be restricted to on site travel until the end of the construction program.

4.4.3. Operational Traffic

During operation, 2-3 full-time staff will be required for maintenance activities. It is expected that each full-time employee will travel to and from the Project site, which would generate an additional 6 light vehicle movements per day in the surrounding local road network. The use of heavy vehicles is expected to be low during operation. Heavy vehicle movement on the public road network during operation is limited to 6 per day.

4.4.4. Upgrading Traffic

Heavy vehicles may be required when solar panels or other large equipment needs replacing or repairs. All heavy vehicles will travel to the site via the approved TfNSW haulage routes. A limit of 20 heavy vehicle movements, and 2 over-dimensional vehicle movements is permitted per day during any upgrade work.

4.4.5. Decommissioning Traffic

During decommissioning it is estimated that the same amount of trucks will be needed as during construction (about 10 trucks accessing the site per day) over two months. This is the maximum amount permitted. There is a limit of 2 over-dimensional vehicle movements per day during decommissioning. All heavy vehicles will travel to the site via the approved TfNSW haulage routes.

4.5. SIZE OF VEHICLES

Most vehicles visiting the site will be light vehicles, including employee vehicles, buses and utility vans. Larger vehicles required throughout the construction period include Articulated Vehicles (defined in AS 2890.2:2002), 50 tonne mobile crane, and 4-5 axel semi-trailers. The maximum length of any vehicle used for construction will not exceed 19 m, unless approval is granted by the Secretary.

4.6. TIMING

Traffic volumes will be spread over the 12-month construction period, although most traffic movements will occur during the first two to three months for deliveries.

Staff arrival will be scheduled at 6:15am to 6:30 am for marshalling, 6:45 am for toolbox talks, and 7:00 am work start. Staff departures will start between 4:00 pm and 5:30 pm but will be spread out over a more extended period than arrivals, as timing will vary between different work activities. This timing will ensure peak traffic times of school drop-off and pick up and beginning and end of business hours will be avoided, and so the impacts of staff movements on local roads will be minimised.

There are many smaller towns and communities that the haulage routes pass. Scheduling of the haulage routes is to ensure that heavy vehicles are not passing through any towns or driving along the haulage routes when in vicinity of school bus routes during school drop-off and pick-up hours (8:00 – 9:30 am and 2:30 – 4:00 pm). Drivers will be informed these restricted travel times, which will also be included in the contractors' 'Drivers Code of Conduct' (Appendix E).

Heavy vehicle movements into and out of the site will be controlled via traffic management means, including a traffic controller, temporary lowered speed limit and additional road signage alerting vehicles of truck movements in the area. The majority of light vehicle movements are expected to occur prior to and following the delivery window, with a tidal flow of arrivals during the morning and departures during the afternoon and evening.

Heavy vehicle movements will be scheduled throughout the day, resulting in a steady distribution of construction traffic to/from the site and minimising simultaneous heavy vehicle movements and queuing. All arriving vehicles are to stop as directed once they have entered the site and are not on any public road reserve. Implementation of a delivery schedule will ensure that only one inbound or outbound heavy vehicle is travelling along the access route in the vicinity of the site at a time. Vehicles will be on site for a maximum of 2 hours.

Platooning and short stacking will be avoided by allowing 10 minutes between heavy vehicles entering and leaving the site to avoid queuing on the road, at the site access point and along site access roads. Drivers will be informed of this as part of their site induction training and it will be included in the contractors' 'Drivers Code of Conduct' (Appendix E).

5. ROAD NETWORK IMPACTS

5.1. PUBLIC ROAD NETWORK

The major concern for traffic and transport for the Project is the additional volumes of traffic during construction. The following is considered relevant to the assessment of potential impacts as a result of the traffic which will be generated by the Project:

- Given the points of origin for solar farm delivery being spread between Wagga Wagga, Sydney, and Melbourne, the impact to the volumes on the surrounding highways is expected to be minimal.
- Potential impacts to general road safety will include additional vehicle movements, heavy vehicle movements, congestion with other road users, and the identification of areas which may require special consideration for upgrades. Measures will be incorporated to ensure the safety of all road users.
- The timing of vehicle movements may potentially impact upon sensitive land uses along the travel route. Vehicle movements will be coordinated to reduce the impact of construction traffic on the regional and local road network.
- Requirements, including the movement of over-dimension vehicles during selected hours, will assist in reducing the impact of construction traffic on the regional road network.
- The movements of construction staff to and from the Project area on a daily basis will cause additional traffic.
- The construction phase for the Project will increase the volume of traffic on local roads. Movements of construction staff to and from the site on a daily basis will also temporarily increase the traffic volumes on local roads.
- Glint and glare from the solar panels may potentially impact upon road users and become a hazard to the travelling public on the public road network. In the event of glint or glare from the solar plant being evident from a public road, the contractor will implement glare mitigation measures such as establishment of a barrier (e.g. fence, advanced plantings) or other approved device to remove any hazard caused as a result of glare from the solar panels. Mitigation measures may need further approvals prior to implementation.
- The implementation of community information and awareness measures will assist to manage local and regional road impacts. This will include letters sent directly to local schools, local bus companies, Wagga Wagga City Council, and impacted landholders as well as an online website detailing the project's construction programme and its progress.

Other potential traffic, transport, and road safety impacts associated with construction of the proposal relate primarily to the increased number of large vehicles on the road network, which may lead to:

- Increased collision risks (other vehicles, pedestrians, stock, wildlife).
- Damage to road infrastructure.
- Associated noise and dust (particularly on unsealed roads), which may impact on nearby receivers.
- Disruption to existing services (public transport, school buses).
- Reduction on the level of service on the road caused by 'platooning' of construction traffic.

5.2. ON-SITE ROADS

The entrance to the site would be constructed off Boiling Down Road, approximately 760 m west of the intersection with the Ashfords Road (Figure 4-1). All vehicles will enter and leave the Project site in a forward direction.

The new internal access roads will be constructed to provide access to the site infrastructure and will be constructed to a width of up to 4 m. The roads will be constructed as all-weather roadways. The design of these tracks will follow existing farm roads where possible and will consider proximity to infrastructure, outcomes from consultation with land owners, site topography, and requirements for managing and avoiding sensitive areas including flora, fauna, and heritage.

6. TRAFFIC MANAGEMENT

6.1. TRAFFIC CONTROL PLANS

Specific to the management of traffic, Traffic Control Plans (TCPs) will be prepared prior to works which may impact on traffic on public roads. The TCPs will implement specific controls that have been identified in this TMP, the EMS, and any associated plans. All Project-related traffic will comply with the controls listed within the TCPs.

The TCPs will specify the description, position, quantity, applicability, behaviour and the methodology of actions on the road network (onsite and off), including speed limit alterations, road signage (temporary or permanent), temporary road detours, junction upgrades, behaviour of drivers, control mechanisms, reporting etc. As a minimum, the following TCPs would be required:

- As part of any application for a Road Occupancy Licence from TfNSW for work within the classified road reserve or within 100 metres of traffic signals.
- As part of works to an intersection on any public road.
- As part of any works that would impact upon a public road.

TCPs will be developed by personnel duly qualified and certified by training in accordance with the TfNSW Traffic Control at Work Sites manual in consultation with the TfNSW, WWCC and the local communities, as required. TCPs will be developed for Boiling Down Road by a qualified traffic controller, and documents will include their name and qualification number.

The implementation of TCPs will be monitored and assessed on a daily basis. Where subcontracted traffic control staff are required for managing vehicle movement, they will monitor TCP implementation. Where specialist traffic control staff are not required, the site manager will monitor the implementation of TCPs.

TCPs will also address the management of dust and mud resulting from traffic on the unsealed roads used to access the Project site. Measures including dust suppression using water carts will be used to control dust.

6.2. ROAD UPGRADES

Prior to the commencement of construction, the intersection of Mitchell Road and Ashfords Road will be upgraded to provide a new Basic Right Turn (BAR). The intersection of Ashfords Road and Boiling Down Road will be upgraded to a sealed road with a minimum length of 30 m from the intersection with Ashfords Road. The site access point off Boiling Down Road will be upgraded with a Rural Property Access type treatment to accommodate for the largest vehicle accessing the site. The upgrades have been designed to the satisfaction of WWCC and TfNSW, and in accordance with the *Austroads Guide to Road Design* (as amended by TfNSW supplements), unless TfNSW agrees otherwise.

An assessment of the condition of the culvert on Boiling Down Road will be completed prior to the commencement of construction to ensure its capacity to withstand an increase in traffic load.

Refer to Appendix C for a concept design drawing of the intersection upgrade.

6.3. ON-SITE PARKING

Laydown and parking for light and heavy vehicles will be provided at the construction compound (refer Appendix A). Sufficient parking space will be provided on site for all vehicles. Preliminary plans for the site will provide temporary parking for around 40 vehicles during construction, and permanent parking spaces would be provided during operation. More than half of the light vehicles on site at any one time will be distributed around the site. All temporary construction staff parking will be located on site and not within the road reserve. This will ensure that no parking occurs on the public road network near the site.

6.4. MAINTENANCE AND EMERGENCY REPAIRS

A regular maintenance schedule for all plant and vehicles, including heavy vehicles, will be implemented by the Engineering Procurement and Construction (EPC) Contractor. The maintenance schedule would include but is not limited to the following:

- Plant and vehicles will be maintained as per manufacturer's instructions.
- Heavy Vehicles and trailers will be maintained in accordance with the *National Heavy Vehicle Inspection Manual* to ensure roadworthiness.
- Records of fuel will be kept for each piece of plant and vehicle.
- Records of maintenance and use of any consumables, tyres, oils, batteries etc.
- Spillage kits will be provided to all vehicles.
- All operators of plant and vehicle drivers will be trained regarding their responsibilities, policies, procedures and work instructions.

A regular maintenance schedule for the road system used by the project will be implemented by the EPC Contractor. The maintenance schedule would include but is not limited to the following:

- Inspection and documentation of road condition and defects on a weekly basis during construction, upgrades and decommissioning.
- The visual inspection by a site engineer or nominee will document defects (Appendix I).
- The roads to be surveilled on a weekly basis include:
 - Bakers Lane.
 - Inglewood Road.
 - Mitchell Road to Ashfords Road.
 - Ashfords Road to Boiling Down Road
- Programming of defect repair based on discussions with WWCC.
- Defect repair in accordance with TfNSW Maintenance Specifications 3 Routine Services.
- Records of any repairs completed. (e.g. repairing potholes).

An emergency repairs plan for all Plant and Vehicles will be implemented by the EPC Contractor. The plan would include but is not limited to the following:

- Procedures detailing what to do in the event of plant/vehicle breakdown.
- Temporary isolation of the broken plant/vehicle so it will not impede upon other activities occurring within the surrounding area or other road users.
- Back-up plant/vehicles to temporarily replace the broken plant/vehicle.
- Contact details of a recovery operator if a vehicle is required to be moved off the road.
- Procedures for replacement parts and equipment.
- Emergency contacts for who will be conducting the repairs.
- All operators and drivers will be trained regarding their responsibilities and procedures for handling emergency repairs.

Emergency repair of the road used by the project will be implemented by the EPC Contractor where the road failure is a consequence of the project's actions. Emergency repair work to the network will be discussed with WWCC or TfNSW. This will include but is not limited to:

- An assessment of the failure that restrict the operation of the road, eg. Culvert collapse will occur within 4 hours of the issue being identified.
- The assessment will be made by a site engineer
-
- The project manager will contact WWCC
- Erect advisory signage minimize site attendance, or delay deliveries.
- Restore / await restoration of road operation
- Design permanent repairs if required
- Effect permanent repairs
- Monitor and surveil permanent repairs
- ..

6.5. DRIVER FATIGUE

The risk of driver fatigue will be managed by the provision of buses for daily transport of staff to and from the site. Information will be included in site induction training, contractors' 'Drivers Code of Conduct' (Appendix E), and toolbox talks on appropriate driving behaviour, including fatigue management. Strategies will include:

- Ensuring sufficient sleep and rest prior to each shift.
- Promote carpooling and shuttle buses.
- Avoid work scheduling which promote excessive work hours.
- Monitor fatigue in staff during work hours and prior to leaving the site, with particular reference to staff travelling long distances.
- Liaise with TfNSW western region Road Safety Unit to provide training.
- Promote regular breaks during long-distance driving.
- Promote abstinence from alcohol, medications which cause drowsiness, and other drugs that may influence fitness for work.
- Promote good exercise and diet.
- Provide assistance programs for staff suffering from stress.

6.6. ROAD CONDITIONS

6.6.1. Fog, dust and rain

Local climate and weather conditions in the Wagga Wagga region such as fog, storms, and dust present potential safety concerns to road traffic users and local landowners throughout construction and operation. Risks will be managed by monitoring weather forecasts and including details of upcoming weather events and relevant management strategies in toolbox talks, including reduced speed on internal and site access roads and use of fog lights during periods of low visibility, dry or wet conditions. Relevant management strategies to ensure that drivers implement safe driving practices during poor weather conditions will be detailed in the contractors' 'Drivers Code of Conduct' (Appendix E).

Dust suppression is to be used during dry or windy conditions to reduce impacts upon road traffic users and surrounding residences. Vehicles are to be clean and free of mud before leaving the site and entering any classified road, particularly during wet conditions, to ensure mud and other debris is not drag onto public roads and impedes upon the safety of road traffic users. Gravel hardstands may be established near the site entry and exit point for vehicle cleaning/inspections. These measures will be included in the contractors' 'Drivers Code of Conduct' (Appendix E) for the Project.

6.6.2. Speed

All road traffic associated with the Project will access the site via the site entry point on Boiling Down Road. Boiling Down Road will be accessed by Ashfords Road. The Project area is situated in a high-speed environment. Speed limits on these roads vary between 80 km/hr to 100 km/hr. All construction traffic activities will consider the high-speed environment of Boiling Down Road and Ashfords road.

There will be no change to the speed limit along Boiling Down Road. The speed limit of all internal roads and site access roads will be 20km/h. Speed signs will be posted as appropriate in compliance with relevant guidelines and standards. Risks will also be managed by including relevant management strategies in toolbox talks, including complying with posted speed limits and reducing speed to suit weather conditions. These will also be included in the contractors 'Drivers Code of Conduct' (Appendix E) for the Project and in accordance with the National Heavy Vehicle Regulator (NHVR) chain of responsibility (Appendix F).

6.7. ROAD OCCUPANCY LICENCE

A Road Occupancy Licence is issued under s.138 of the Roads Act. Anyone who is working with the road reserve on a local (Council) road is required to obtain a s.138 permit from Council. The EPC Contractor will obtain Road Occupancy Licences from the appropriate Roads Reserve Officers prior to the commencement of haulage.

Various approvals will be sought for road works and the transport of over dimension loads from:

- TFNSW and TFNSW Traffic Management Centre.
- NSW Police.
- Ausgrid.
- Essential energy.
- Telstra.
- ARTC.
- Councils.

6.8. ROAD DILAPIDATION REPORT

An increase in the number of large vehicles on the road network may lead to damage to the road infrastructure. Independent Road Dilapidation Reports will be prepared for Ashford's Road and Boiling Down Road for at least the following intervals:

- Within one month prior to the commencement of construction
- Within 3 months following the completion of construction
- Within one month prior to the commencement of decommissioning
- Within 3 months following completion of decommissioning
- Prior to any road upgrade works

Condition reports would be provided to Council within one week of completion of each report.

The Report will assess:

- The existing condition of local roads on the transport route.
- Mechanisms to restore any damage that may result to local roads due to traffic and transport related to the construction, upgrading or decommissioning of the Project.

6.9. COMMUNITY ENGAGEMENT

The implementation of a community information and awareness program about the construction, timing and haulage routes will assist in managing local and regional road impacts on local residents. Significant disruption to local roads will be advertised in local media, via letters, online on the Project website and using variable message signs prior to commencement of the disruptive activity. Local landholders directly impacted by roadworks will be provided with a specific induction to relevant traffic impacts, including planned work that will disrupt property access, and management strategies. Given the isolated rural location of the Project 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.

6.10. MONITORING TRAFFIC IMPACTS

Traffic conditions will be monitored during the construction, upgrading and decommissioning of the Gregadoo solar farm (Table 6-1). Where the conditions are adversely impacting the local road network management measures will be implemented to reduce traffic impacts. Monitoring and measures to reduce traffic impacts are outlined below.

Table 6-1 Traffic impact monitoring

Impact	Monitoring	Frequency	Responsible	Trigger	Response
Intersection congestion	Intersection queuing	Weekly at AM and PM Peak	Site Engineer or foreman	More than 6 vehicles queuing	Investigate bus use, scheduling arrivals, advice other routes
Network congestion	Heavy vehicle deliveries	Daily monitoring of HV arrivals	Site Engineer, Gate Keeper	>20/day	Instruct drivers & suppliers to stick to schedule
Intersection congestion	Heavy vehicle platooning	Daily monitoring of HV arrival times	Site Engineer, Gate Keeper	More than two HV's arrive concurrently	Instruct drivers & suppliers to stick to schedule
Increased complaints	Monitor traffic complaints	Weekly	QSE	More than 1week	Investigate and respond
Unsealed road dust	Visual observations	Daily	Site Engineer, foreman, Gate Keeper	Dust obscures obstacle @ 200m	Water cart use Investigate re-sheet
Accidents	Accident reports	As required	Site Engineer	Construction traffic involvement	Investigate and respond

7. ENVIRONMENTAL CONTROL MEASURES

A range of environmental requirements and control measures are identified in the EIS, SoCs in the Submissions Report, and CoCs. Specific measures and requirements to address traffic and transport impacts are outlined in Table 7-1.

Table 7-1 Traffic and transport management measures.

Measure / Requirement	Where Addressed	When to implement	Responsibility	Reference
GENERAL				
Training will be provided to all Project personnel, including relevant sub-contractors on traffic and transport requirements from this plan through inductions, toolboxes and targeted training.	EMS	Pre-construction Construction Operation	EPC Contractor	EMS Section 4.3
DESIGN				
The Proponent would consult with the Roads and Maritime Services regarding the proposed upgrading of the intersection of Mitchell Road and Ashfords Road, the upgrade of the intersection of Ashfords Road and Boiling Down Road, the upgrade of the site access point off Boiling Down Road and the of the culvert on Boiling Down Road to withstand an increase in traffic load. The upgrades would be subject to detailed design and must be designed and constructed to the standards specified by <i>Austroads Guide to Road Design</i> (as amended by TFNSW supplements).	TMP	Pre-construction	Gregadoo Solar Farm Pty Ltd EPC Contractor	TMP Detailed design
PRE-CONSTRUCTION				
A Haulage Plan would be developed with input from the roads authority, including but not limited to: - Require that delivery of components to the site be via the route adopted and approved as part of the Traffic Management Plan. This route shall not include the use of Elizabeth Avenue. - Details of traffic routes to be used by heavy and light vehicles, and	TMP	Pre-construction Decommissioning	Gregadoo Solar Farm Pty Ltd EPC Contractor	TMP TCPs

Measure / Requirement	Where Addressed	When to implement	Responsibility	Reference
any associated impacts and any road-specific mitigation measures. • Details of measures to be employed to ensure safety of road users and 30inimize potential conflict with Project generated traffic, • Proposed hours for construction activities, as night time construction presents additional traffic related issues to be considered. • The management and coordination of the movement of vehicles for construction and worker related access to the site and to limit disruption to other motorists, emergency vehicles, school bus timetables and school zone operating times. • Loads, weights and lengths of haulage and construction related vehicles and the number of movements of such vehicles • Procedures for informing the public where any road access will be restricted as a result of the Project. • Any proposed precautionary measures such as signage to warn road users such as motorists about the construction activities for the Project. • A Driver Code of Conduct to address such items as appropriate driver behaviour including adherence to all traffic regulations and speed limits, safe overtaking and maintaining appropriate distances between vehicles, etc and appropriate penalties for infringements of the Code. • Details of procedures for receiving and addressing complaints from the community concerning traffic issues associated with truck movements to and from the site. Upon determining the haulage route(s) for construction vehicles associated with the Project, and prior to construction, upgrading or decommissioning activities, undertake a Road Dilapidation Report.				

Measure / Requirement	Where Addressed	When to implement	Responsibility	Reference
The Report shall assess the current condition of the road(s) and describe mechanisms to restore any damage that may result due to traffic and transport related to the construction of the Project. The Report shall be submitted to the relevant road authority for review prior to the commencement of haulage.				
A Traffic Management Plan would be developed and implemented during construction and decommissioning. The plan would include, but not be limited to: • Prior to construction, a pre-conditioning survey of the relevant sections of the existing road network, to be undertaken with Council. • Assessment of road condition prior to construction on all local roads that would be utilised. • A program for monitoring road condition, to repair damage exacerbated by the construction and decommissioning traffic. • The designated routes of construction traffic to the site. • Carpooling/shuttle bus arrangements to minimise vehicle numbers during construction. • Scheduling of deliveries. • Community consultation regarding traffic impacts for nearby residents. • Consideration of cumulative impacts. • Traffic controls (speed limits, signage, etc.). • Procedure to monitor traffic impacts and adapt controls (where required) to reduce the impacts. • Providing a contact phone number to enable any issues or concerns to be rapidly identified and addressed through appropriate procedures. • Water to be used on unsealed roads to minimise dust generation through increased traffic use.	TMP TCP Appendix D Designate on-site delivery area.	Pre-construction Decommissioning	Gregadoo Solar Farm Pty Ltd EPC Contractor	TMP TCPs

Measure / Requirement	Where Addressed	When to implement	Responsibility	Reference
Prior to the commencement of construction, the Applicant must prepare a Traffic Management Plan for the development in consultation with TFNSW and Council, and to the satisfaction of the Secretary. This plan must include: (a) details of the entire transport route to be used for development-related traffic, including the location of access points; (b) a protocol for undertaking independent dilapidation surveys to assess the: • existing condition of local roads on the transport route prior to construction, upgrading or decommissioning activities; and • condition of local roads on the transport route following construction, upgrading or decommissioning activities; (g) a protocol for the repair of any local roads identified in the dilapidation surveys to have been damaged during construction, upgrading or decommissioning works; (h) details of the road upgrade works required by condition 5 of Schedule 3; (i) details of the measures that would be implemented to 32inimize traffic safety issues and disruption to local users of the transport route during construction, upgrading or decommissioning works, including: • temporary traffic controls, including detours and signage; • notifying the local community about Project-related traffic impacts; • procedures for receiving and addressing complaints from the community about development-related traffic; • 32inimize32g potential for conflict with school buses and other motorists as far as practicable;	TMP Dilapidation report. TCP Delivery Schedules (Appendix D). Appendix E DPIE Approval (Appendix B)	Pre-construction	Gregadoo Solar Farm Pty Ltd EPC Contractor	TMP TCPs

Measure / Requirement	Where Addressed	When to implement	Responsibility	Reference
- scheduling of haulage vehicle movements to minimize convoy length or platoons; - responding to local climate conditions that may affect road safety such as fog, dust and wet weather; - responding to any emergency repair or maintenance requirements; and - a traffic management system for managing over-dimensional vehicles; and (j) a driver's code of conduct that addresses: - travelling speeds; - driver fatigue; - procedures to ensure that drivers adhere to the designated transport route/s; and - procedures to ensure that drivers implement safe driving practices Following the Secretary's approval, the Applicant must implement the Traffic Management Plan.				
The Applicant must ensure that the: (a) development does not generate more than: 20 heavy vehicle movements a day during construction, upgrading or decommissioning; 2 over-dimensional vehicle movements during construction, upgrading or decommissioning; 6 heavy vehicle movements a day during operations; on the public road network; (b) length of any vehicles (excluding over-dimensional vehicles) used for the development does not exceed 19 metres, unless the Secretary agrees otherwise.	TMP Delivery Vehicle Register (Appendix D).	Pre-construction/ Construction	Gregadoo Solar Farm Pty Ltd EPC Contractor	TMP

Measure / Requirement	Where Addressed	When to implement	Responsibility	Reference
Prior to the commencement of construction, the Applicant must: (a) upgrade the intersection of Mitchell Road and Ashfords Road, including providing a Basic Right Turn Treatment (BAR); and (b) upgrade the intersection of Ashfords Road and Boiling Down Road, including sealing Boiling Down Road a minimum length of 30 m from its intersection with Ashford's Road, in accordance with the Austroads Guide to Road Design, to the satisfaction of the relevant roads authority The proponent would consult with Wagga Wagga City Council regarding the proposed upgrades.	Detailed design	Pre-construction	Gregadoo Solar Farm Pty Ltd EPC Contractor	TMP Design Drawings
Prior to the commencement of construction, the Applicant must upgrade the site access point off Boiling Down Road (shown in Appendix 1) with a Rural Property Access type treatment to cater for the largest vehicle accessing the site, in accordance with the Austroads Guide to Road Design, to the satisfaction of Council.	Detailed design	Pre-construction	Gregadoo Solar Farm Pty Ltd EPC Contractor	TMP Design Drawings
The Applicant must ensure: (a) the internal Project site roadways are constructed as all-weather roadways; (b) there is sufficient parking on site for all vehicles, and no parking occurs on the public road network in the vicinity of the site; (c) the capacity of the existing roadside drainage network is not reduced; (d) all vehicles are loaded and unloaded on site, and enter and leave the site in a forward direction; and (e) vehicles leaving the site are in a clean condition and do not result in dirt being tracked onto the public road network.	Detailed design TCPs	Pre-construction/ Construction	Gregadoo Solar Farm Pty Ltd EPC Contractor	TMP TCPs
CONSTRUCTION				
The Applicant must keep accurate records of the number of heavy vehicles entering or leaving the site each day.	TMP	Construction	Gregadoo Solar Farm Pty Ltd	TMP 8.3 TCPs

Measure / Requirement	Where Addressed	When to implement	Responsibility	Reference
			EPC Contractor	
Construction, operational and decommissioning traffic is not to deter from the approved heavy vehicle access route (Sturt Hwy, Bakers Lane, Inglewood Road, Mitchell Road and Ashfords Road) Access via Gregadoo Road and Redbank Road is not permitted at any time.	TMP	Construction	Gregadoo Solar Farm Pty Ltd EPC Contractor	TMP TCPs
All over-dimensional and heavy vehicles associated with the development must travel to and from the site via the Sturt Highway, Bakers Lane, Inglewood Road, Mitchell Road, Ashfords Road, Boiling Down Road and the approved site access point, as identified in the figure in Appendix 1 (Appendix A of this plan).	TMP	Construction	Gregadoo Solar Farm Pty Ltd EPC Contractor	TMP TCPs
The proponent would upgrade and repair any damage resulting from Project traffic (except that resulting from normal wear and tear) as required at the proponent's cost. All works to upgrade or repair any road, its associated road reserve and any public infrastructure in that road reserve, must be to a standard suitable for use by heavy vehicles to meet any reasonable requirements that may be specified by the relevant roads authority. The design and specifications, and construction, of these works must be completed and certified by an appropriately qualified person to be to a standard to accommodate the traffic generating requirements of the Project. On Classified Roads the geometric road design and pavement design must be to the satisfaction of the TFNSW.	TMP	Construction	Gregadoo Solar Farm Pty Ltd EPC Contractor	TMP TCPs
Post-Construction				
A Road Dilapidation Report will be undertaken following construction, upgrading or decommissioning activities. The Report shall assess the current condition of the road(s) and describe mechanisms to restore any damage that may result due to traffic and transport related to the construction of the Project. The Report shall be submitted to the relevant road authority for review	TMP	Post construction Decommissioning	Gregadoo Solar Farm Pty Ltd EPC Contractor	TMP TCPs

Measure / Requirement	Where Addressed	When to implement	Responsibility	Reference
In the event of glint or glare from the solar plant being evident from a public road, the contractor will implement glare mitigation measures such as establishment of a barrier (e.g. fence, advanced plantings) or other approved device to remove any hazard caused as a result of glare from the solar panels. Mitigation measures may require further approvals prior to implementation.	TMP	Construction and post construction following a complaint.	Gregadoo Solar Farm Pty Ltd EPC Contractor	TMP CCP

8. COMPLIANCE MANAGEMENT

8.1. ROLES AND RESPONSIBILITIES

The proponent's Project Team's organisational structure and overall roles and responsibilities are outlined in the EMS. Specific responsibilities for the implementation of environmental controls will be detailed in the Project Construction Environmental Management Plan (CEMP).

8.2. TRAINING

All employees, contractors, and utility staff working on site will undergo site induction training relating to traffic and transport management issues. Site induction training will include informing all employees and contractors of this TMP, and direction to comply with the TMP. To ensure all transport contractors are aware of this TMP, the site construction manager will ensure contractors have sighted this TMP during the site induction training and sign an acknowledgement form (Appendix H). Targeted training in the form of toolbox talks or specific training will also be provided to personnel with a key role in traffic management.

All drivers will be informed of the NHVR chain of responsibility and will adhere to its principles. This training will be provided by the contracting haulage company. A certificate or signed acknowledgement form is to be provided by the contracting haulage company and presented during site induction training to demonstrate the contract driver has been informed of the NHVR chain of responsibility (Appendix H). Further details regarding staff induction and training are outlined in the Section 4.3 of the EMS.

8.3. MONITORING AND INSPECTION

Regular monitoring and inspections will be undertaken in the lead up to, during and following construction. Monitoring and inspections will include, but not be limited to:

- The EPC Contractor is to ensure that an inspection and maintenance program for local road access will be established to ensure local road conditions are maintained in a safe state for heavy and RAV access. The EPC Contractor will conduct the road inspection fortnightly.
- The site Construction Manager is to ensure that all Plant and vehicles are regularly maintained to operate at optimum efficiency, and records of each piece of Plant and vehicle are maintained and available for review. This will occur on an as-used basis.
- The number of heavy vehicles entering the site each day will be recorded as they occur by the site foreman using the delivery vehicle register (Appendix D). The delivery vehicle register will be checked throughout the day
 - If it is found that the maximum number of heavy vehicle movements has exceeded the approved limits, the site engineer or delegate is to be notified. The site engineer or delegated is to review the delivery schedules and ensure future deliveries do not exceed the allowed 20 heavy vehicle movements per day. If future deliveries are expected to exceed the 20 heavy vehicle movements per day, then the site engineer or delegate is to prioritise the deliveries based on construction needs and delay any deliveries to ensure maximum number of heavy vehicle movements is not exceeded.
 - WWCC and DPIE is to be notified via letter of the exceedance in the maximum number of heavy vehicle movements within 7 days. The letter should include:
 - .
 - The exceedance in the number of heavy vehicles that occurred.
 - A copy of the delivery vehicle register
 - Contact details of the site engineer or delegate.
 - A summary of what has been done to rectify the issue.

- The delivery vehicle register will be checked during monthly inspections.
- The EPC Contractor will ensure that delivery numbers will be checked against schedules and adjusted as required to ensure that the number of heavy vehicle movements generated during construction does not exceed 20 per day.
- The implementation of Traffic control plans will be monitored and assessed by the site engineer and or the EPC Contractor on a daily basis.
- Where subcontracted traffic control staff are required for managing vehicle movement, they will monitor TCP implementation on a daily basis.
- Where specialist traffic control staff are not required the site engineer will monitor the implementation of TCP's on a daily basis.
- Public road conditions will be monitored by the engineer (weekly during construction and decommissioning)

As described in section 6.10 of this plan. Additional requirements and responsibilities in relation to inspections will be documented in the CEMP.

8.4. AUDITING

Audit requirements are detailed in the EMS, Section 5.

8.5. REPORTING

Reporting requirements and responsibilities are outlined in the EMS, Section 4 and Section 5.

8.6. COMPLAINTS REPORTING

All complaints will be promptly responded to in accordance with the Complaint's Procedure (Appendix J) and the Community Consultation Plan in the EIS (Appendix D). A contact phone number for the Project will be made available on the Project's website.

9. REVIEW AND IMPROVEMENT

9.1. CONTINUOUS IMPROVEMENT

Continuous improvement of this plan will be achieved by the ongoing evaluation of environmental management performance against environmental policies, objectives and targets to identify opportunities for improvement.

9.2. TMP UPDATE AND AMENDMENTS

This TMP will need to be revised whenever the construction program, scope of work, or work methods change, whenever the work methods and control structures are found to be ineffective, or if so directed by the proponent. 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.

9.3. DOCUMENT CONTROL

Document control procedures are outlined in the EMS.

10. REFERENCES

National Heavy Vehicle Regulator (NHVR) (2019). *Route Planner*. Accessed November 2019 at: <https://www.nhvr.gov.au/road-access/route-planner>

NSW Government (2019). *Planning Portal – Major Project Assessments*. Accessed November 2019 at: <http://majorprojects.planning.nsw.gov.au/page/>

NGH Environmental (2018). *Environmental Impact Statement Gregadoo Solar Farm*.

NGH Environmental (2018). *Submissions Report Gregadoo Solar Farm*.

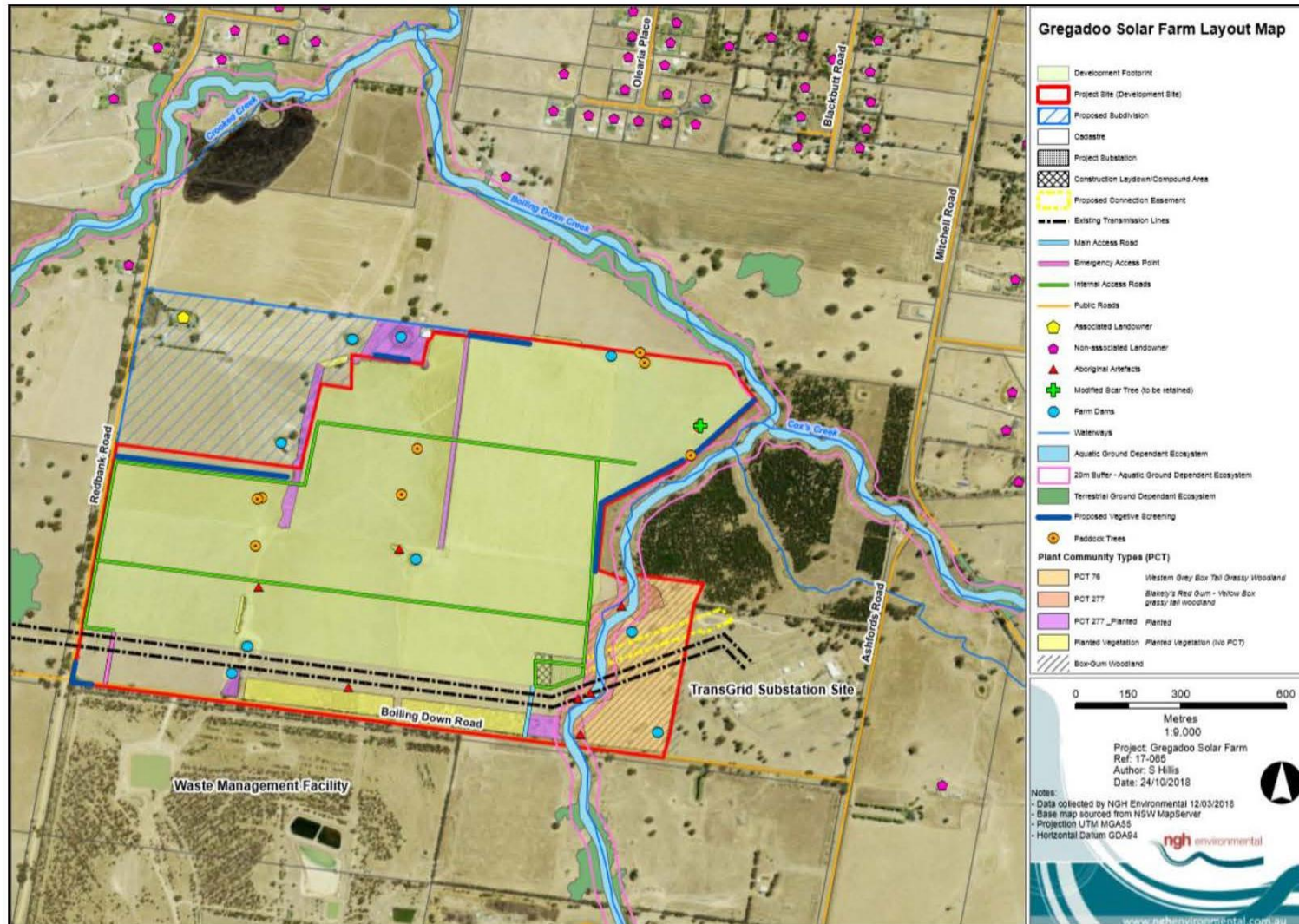
Roads and Maritime Services (2019). *Heavy Vehicle Maps*. Accessed November 2019 at: <https://www.rms.nsw.gov.au/business-industry/heavy-vehicles/maps/restricted-access-vehicles-map/map/index.html>

Traffic Design Group (TDG) (2018) Gregadoo Solar Farm – Traffic Access Assessment

VicRoads (2019). *Victoria's Oversize/Overmass (OSOM) Network*. Accessed November 2019 at: <https://vicroadsmaps.maps.arcgis.com/apps/webappviewer/index.html?id=526b35d822ba437f833520c70da84587>

APPENDIX A APPROVED SITE MAP

Traffic Management Plan
Gregadoo Solar Farm



APPENDIX B CONSULTATION

B.1 WAGGA WAGGA CITY COUNCIL

Issue raised	Location in this plan where addressed
Issues raised from review of draft TMP on the 6th April 2020	
Tumbarumba Rd and Gregadoo East Road are only suitable for general access vehicles. OSOM vehicles delivering from Melbourne should access via the Sturt Hwy, either from the Hume Hwy or the Olympic Hwy.	The OSOM vehicle route from Melbourne has been updated in Section 4.3 to ensure OSOM vehicles do not use Tumbarumba Road and Gregadoo East Road.
Entry to the site should be arranged so that any vehicle that is arriving can drive onto the site and out of the road reserve before it is stopped at any check point. There should be no reason for arriving vehicles to be stopped in the road reserve before entering the site	The staging of deliveries to avoid queuing on the road reserve has been included in Section 4.3 and Section 4.6.
OSOM movements should generally be restricted to times that are outside of school bus hours – 8am to 9:30am in urban area and 7:30am to 9am in rural area.	The restriction of OSOM movements during school bus hours has been included in Section 4.3.
Any application for access for OSOM vehicles to the local road network should be made through the NHVR	The application for access for OSOM vehicles via the NHVR has been included in Section 4.3.
Para 6.7 – Road Occupancy Licence – ROL's are issued under s.138 of the Roads Act. Anyone who is working with the road reserve on a local (Council) road is required to obtain a s.138 permit from Council. The Road Reserve Officer deals with those permits.	Section 6.7 has been updated to include reference to s.138 of the Roads Act and who to contact to obtain a s.138 permit.
Para 8.3 – Monitoring and Inspection – there is to be a monthly audit of the number of heavy vehicle movements on each day. What happens if it is found that the max number of movements has been exceeded? What remediation could be expected? What notification to Council would occur?	Remediation details to address the exceedance of heavy vehicle movements has been included in Section 8.3.

B.2 TRANSPORT FOR NEW SOUTH WALES

Issue raised	Location in this plan where addressed
Issues raised from review of draft TMP on the 24th March 2020	
The TMP does not include protocol for undertaking independent dilapidation surveys. This is one of the requirements included in the determination. It is recommended that Wagga Wagga City Council is consulted to determine whether these surveys are required.	A protocol for undertaking independent road dilapidation surveys has been included in Section 6.8.
Section 6.6 includes information on driver fatigue. This information should be included in the Driver's Code of Conduct.	Driver fatigue information has been included in Appendix E.
The Traffic Management Plan and Drivers Code of Conduct should also include information relating to staging of deliveries to avoid queues at access points and following any instructions from relevant staff when making on site deliveries.	The staging of deliveries to avoid queuing or platooning has been included in Section 4.3 Section 4.6, and Appendix E. Following directions from relevant when making deliveries has been included in Section 4.3 and Appendix E.
The document does not mention measures or actions that will be taken to ensure that transport contractors are aware of and will comply with the Traffic Management Plan.	Use of a signed acknowledgement form to be completed during site inductions has been included in Section 8.2 and Appendix H to ensure contractors are aware of this TMP.
The NHVR chain of responsibility document has been included in Appendix F but there is not much discussion in the document on implementation of this policy.	Use of a signed acknowledgement form to be completed by the contracting haulage company and presented during site inductions has been included in Section 8.2 to ensure contractors are aware of the NHVR chain of responsibility.
Please include any Traffic Control Plans as an appendix (if or when they are available).	Traffic Control Plans are currently not available; however an Appendix has been included to allow for these to be added at a later stage (Appendix G)..
Please note that Roads & Maritime Services is now Transport for NSW.	Reference to Roads & Maritime Services has been changed to Transport for NSW throughout this TMP.

B.3 DPIE

Issue raised	Location in this plan where addressed
Issues raised from review of draft TMP on the 15th September 2020	
Section 4.4 addresses construction and operation, however, upgrading and/or decommissioning have not been adequately addressed here. Address the limit of 20 heavy vehicle movements a day for upgrading or decommissioning	Limits on heavy vehicle movements during upgrading and decommissioning has been included in Section 4.4
Section 4.4.2 does not clearly identify for the limit on only 2 over-dimensional vehicle movements per day during construction, upgrading and decommissioning. Address the limit of 2 over-dimensional vehicle movements a day for construction, upgrading or decommissioning activities	The limit of 2 over dimensional vehicle movements per day has been included in Section 4.4.2, 4.4.3, 4.4.4 and 4.4.5.
Section 4.4.3 addresses operational traffic, however, it does not detail the limit of 6 heavy vehicle movements a day during operations. Address the limit of 6 heavy movements a day during operations on the public road network.	The limit of 6 heavy vehicle movements allowed per day during operations has been included in Section 4.4.3
Section 8.3 and Appendix D set out the record keeping procedures for over-dimensional and heavy vehicles entering or leaving the site each day. Section 8.3 states that the site foreman will be recording heavy vehicles entering the site each day. And that the register will be checked during the monthly audits. There is potential that it could be 4 weeks from the date of a non-compliance before it is addressed. This is a daily limit and the process should seek to address truck movement exceedances as they occur – this section needs to be improved to set this out. For clarity, the auditing of the vehicle register is acceptable. Exceedances of the maximum number of truck movements are non-compliances with the project approval – as per condition 5, the Department needs to be notified within 7 days of the project/applicant becoming aware of the non-compliance with the conditions of consent. Make it clear that the site foreman (or whoever else is recording heavy vehicle movements) must inform the site engineer or delegate when the truck movements have or are about to exceed the 20 heavy vehicle movements in a day. Include the requirement to notify the Department of the heavy vehicle movement non-compliance as per Condition 5 of the consent.	The delivery vehicle registry to be checked daily has been included in Section 8.3 Notification to WWCC and DPIE of an exceedance in the maximum number of heavy vehicles has been included in Section 8.3.
Section 6.8 sets out that independent road dilapidation reports will be prepared prior to the commencement of construction, upgrading or decommissioning activities. The second dot point of what the report will assess has the word condition twice in a row. Amend dot point two in Section 6.8 to remove the second use of the word 'condition'	Amended Section 6.8

Issue raised	Location in this plan where addressed
The second dot point in Section 6.8 states that the condition of local roads on the transport route prior to construction, upgrading or decommissioning activities will be assessed. However there are no details relating to at what point this assessment will be undertaken and the timing with which the report will be provided to Council. State at what point the condition of local roads report will be undertaken following the completion of construction/ upgrading/ decommissioning activities and the timing in which the report will be provided to Council.	Section 6.8 has been amended to include a timeline for condition assessments and report delivery.
The third dot point in Section 6.8 states that the dilapidation reports will describe the mechanisms to restore any damage that may result to local roads due to traffic and transport related to the construction of the project, this point should also cover upgrading or decommissioning as per the previous points. Incorporate upgrading or decommissioning within the third dot point of Section 6.8	Section 6.8 has been updated to include upgrading and decommissioning
Refers to the EMS Section 4.4.5 and Appendix D and the Community Consultation Plan. The Community Consultation Plan provided in Appendix D of the EIS provides detail on community engagement activities and the format of the communication, and very briefly addresses notifying neighbours of avenues to complain, however it does not go any further than that.	The EMS will include a detailed complaints procedure specific to the project. This is referenced in section 6.8 of the TMP.
Section 6.4 Maintenance and Emergency Repairs addresses maintenance and emergency repairs of plant and vehicles. It does not address the requirement to undertake emergency repair or maintenance of the road system	Requirements to undertake emergency repair or maintenance of the road systems has been included in Section 6.4
Table 7-1 Pre-Construction states that the route adopted in the TMP shall not include the use of Elizabeth Avenue. This point should also be clearly identified in Section 4.3 State in Section 4.3 that Elizabeth Avenue shall not be used as a transport route in relation to the project.	Section 4.3 now states that Elizabeth Avenue will not be used as part of the Project's haulage route.
Appendix E – Driver Code of Conduct Penalties and Disciplinary Action – failure to comply will lead to the issue of a warning notice or disciplinary action.	Penalties and disciplinary action in Appendix E has been updated.
See comment above for Schedule 3, Condition 8€ Refers to the EMS Section 4.4.5 and Appendix D and the Community Consultation Plan. The Community Consultation Plan provided in Appendix D of the EIS provides detail on community engagement activities and the format of the communication, and very briefly addresses notifying neighbours of avenues to complain, however it does not go any further than that.	EMS will include a detailed complaints procedure. This is referenced in section 6.8 of the TMP.
<i>A Traffic Management Plan would be developed and implemented during construction and decommissioning. The plan would include, but not be limited to:</i> <i>• Prior to construction, a pre-conditioning survey of the relevant sections of the existing road network, to be undertaken with Council</i>	Section 6.8 has been amended to include a timeline for condition assessments and report delivery.

Issue raised	Location in this plan where addressed
• <i>Assessment of road condition prior to construction on all local roads that would be utilised</i> See comment above for Schedule 3, Condition 8(b)	
A program for monitoring road condition to repair damage exacerbated by construction or decommissioning traffic have not been provided. Detail a program for monitoring road condition to repair damage	A program for monitoring road condition has been included, in Section 6.4 and 8.3
See comment above for Schedule 3, Condition 8€. Refers to the EMS Section 4.4.5 and Appendix D and the Community Consultation Plan. The Community Consultation Plan provided in Appendix D of the EIS provides detail on community engagement activities and the format of the communication, and very briefly addresses notifying neighbours of avenues to complain, however it does not go any further than that.	EMS will include a detailed complaints procedure. This is referenced in section 6.8 of the TMP
There is no procedure set out to monitor traffic impacts and adapt controls to reduce the impacts. Set out a procedure to monitor traffic impacts and adaptation controls to reduce the impacts.	A procedure to monitor traffic impacts has been included in section 6.10 and 8.3.
Schedule 4 Condition 8 requires the project website to state how complaints can be made. However, this is not specifically stipulated within this management plan. It may be that the EMS provides clearing details of the contact phone number to be used. Clarify where a contact phone number can be found.	A contact phone number for the project will be made available on the Project website (Section 8.6)
Section 4.3 page 20 identifies that project water will be sourced locally for dust suppression, from on site farm dams or local council standpipe if dams diminished. Clarify that dust suppression includes the watering of unsealed roads (and possibly other construction related activities).	Section 4.3 includes that dust suppression includes the watering of unsealed roads (and possibly other construction related activities).
Section 4.3 identifies the haulage routes, but does not stipulate that Gregadoo and Redbank Roads are not permitted to be used at any time. Table 7-1 states that access to the site via Gregadoo Road and Redbank road is not permitted at any time. State in Section 4.3 that Gregadoo and Redbank Roads, are not to be used at any time.	Elizabeth Avenue has been removed from TT6. Gregadoo Road and Redbank Road has been specified to not be used as part of the Project's haulage route in Section 4.3.
Section 5.1 states that if glint and glare becomes a hazard the contractor will implement mitigation measures such as fences or advanced plantings. Fencing higher than 2 metres will require Council approval, and any trees would need to be planted on private land. Section 7 Table 7-1 identifies the implementation of mitigation measures following a complaint related to glint or glare. Clarify that mitigation measures may require further approvals prior to implementation.	Section 5.1 includes that mitigation measures may require further approvals prior to implementation.

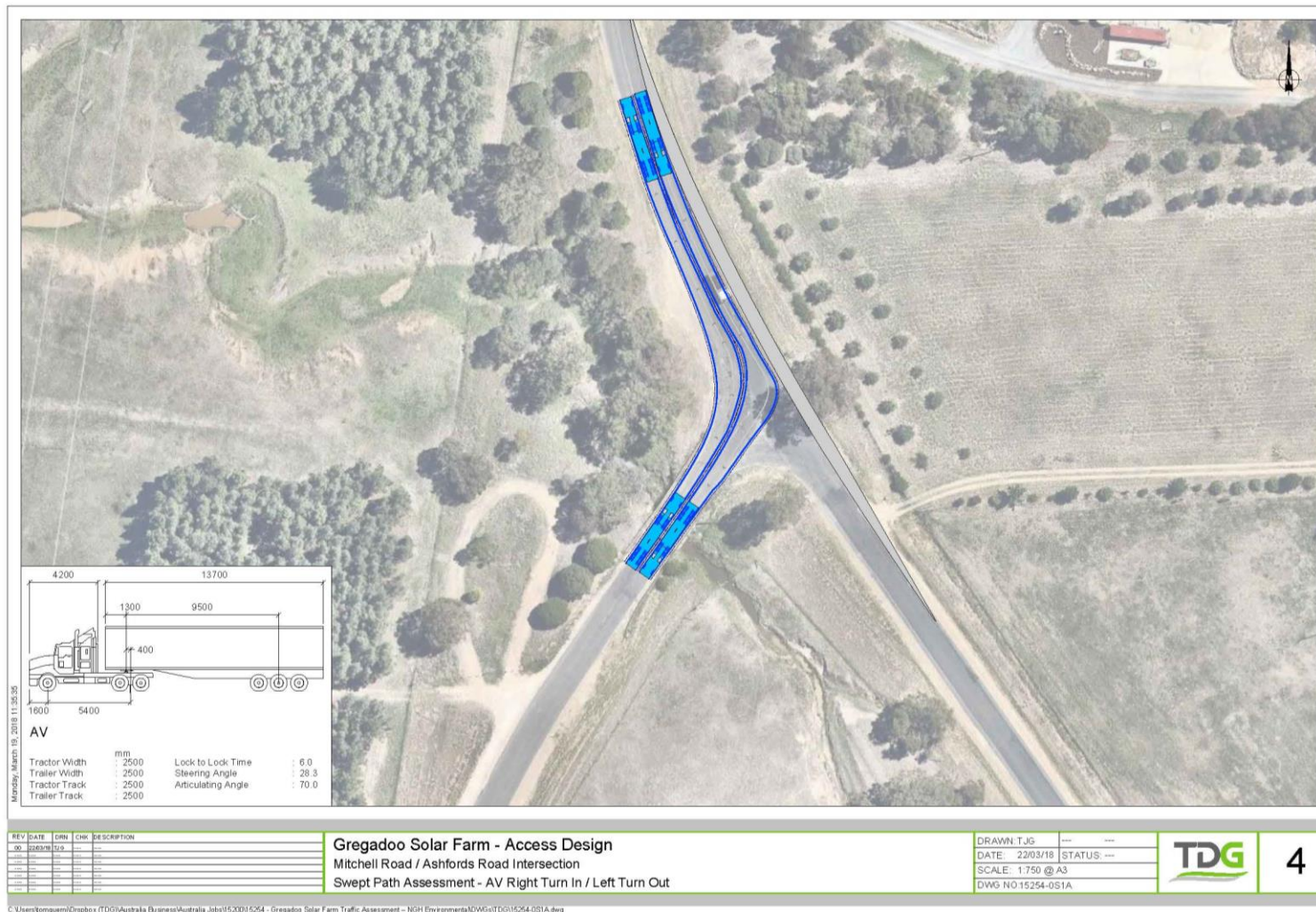
Issue raised	Location in this plan where addressed
Section 6.8 sets out that independent road dilapidation reports will be prepared prior to the commencement of construction, upgrading or decommissioning activities. It does not specifically address these roads. Nor does this document set out the commitment to repair these roads throughout and on completion of construction. Specifically address the dilapidation report requirements for Ashford's Road and Boiling Down Road and the repair requirements throughout construction	The dilapidation report has been specified to be completed for Ashford's Road and Boiling down Road (Section 6.8). The commitment to repair any damage to roads throughout construction has been included in Section 6.4.
Please update and amend references to RMS that should be Transport for NSW (TfNSW)	References to RMS have been amended to TfNSW
Additional issues raised on 11 December 2020	
Condition of local roads – Section 6.8 has been amended to include a timeline for condition of assessments and report delivery. It states that the reports will be provided within 1 week of the inspection(s) being carried out, but does not indicate when inspections would occur, i.e. 1 month prior to construction or decommissioning.	Section 6.8 has been amended to include further detail on the timing of inspections.
Section [8.6] of the TMP relies on a complaints procedure to be detailed within the EMS, however the EMS is not required until prior to construction. As such, the TMP requires details of the process for handling complaints, as road upgrades will be completed prior to provision of an EMS.	A complaints procedure has been provided as Appendix J

B.4 DPIE APPROVAL

APPENDIX C INTERSECTION UPGRADE DESIGNS (TDG 2018)

C.1 MITCHELL ROAD / ASHFORDS ROAD



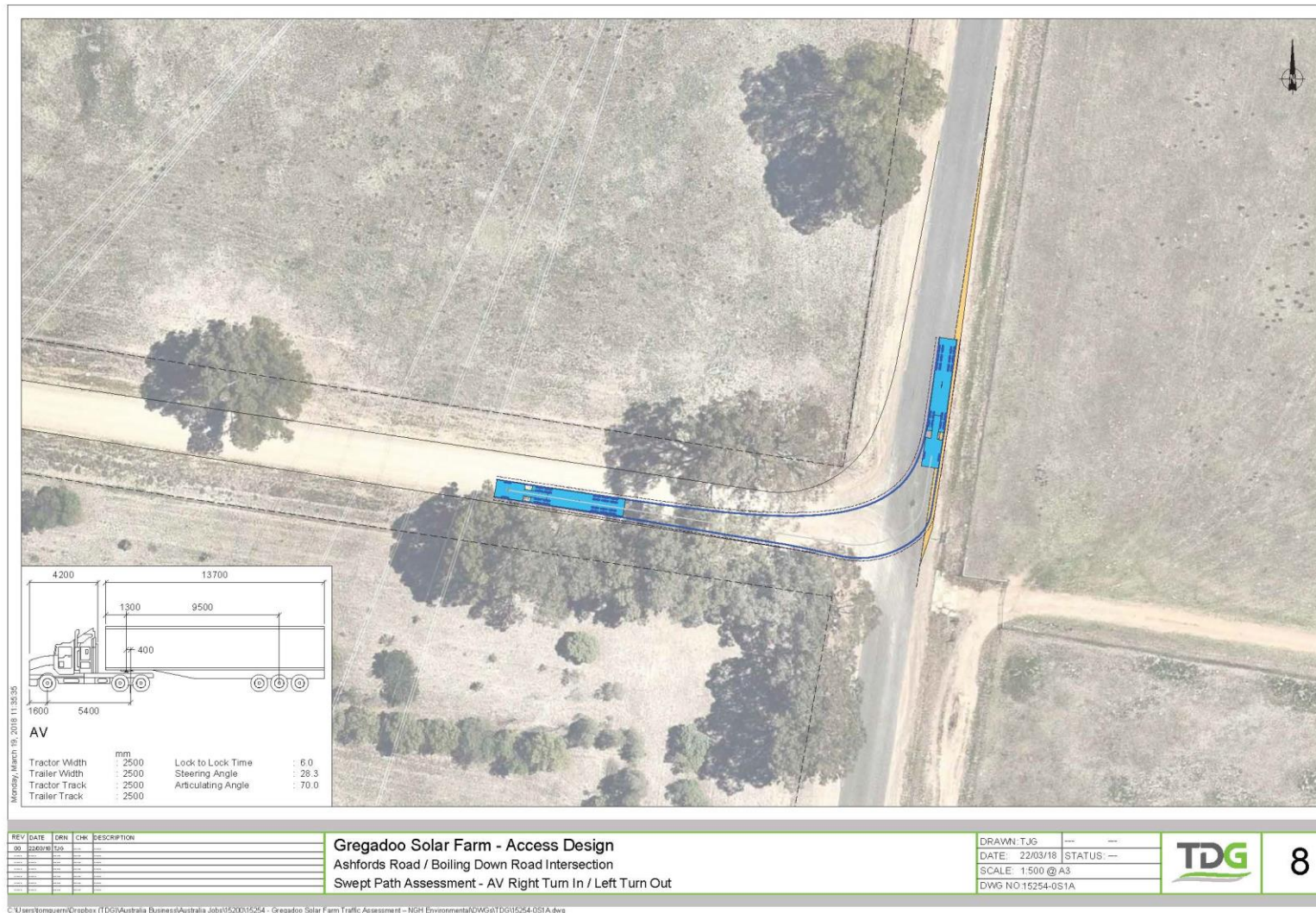


C.2 ASHFORDS ROAD / BOILING DOWN ROAD

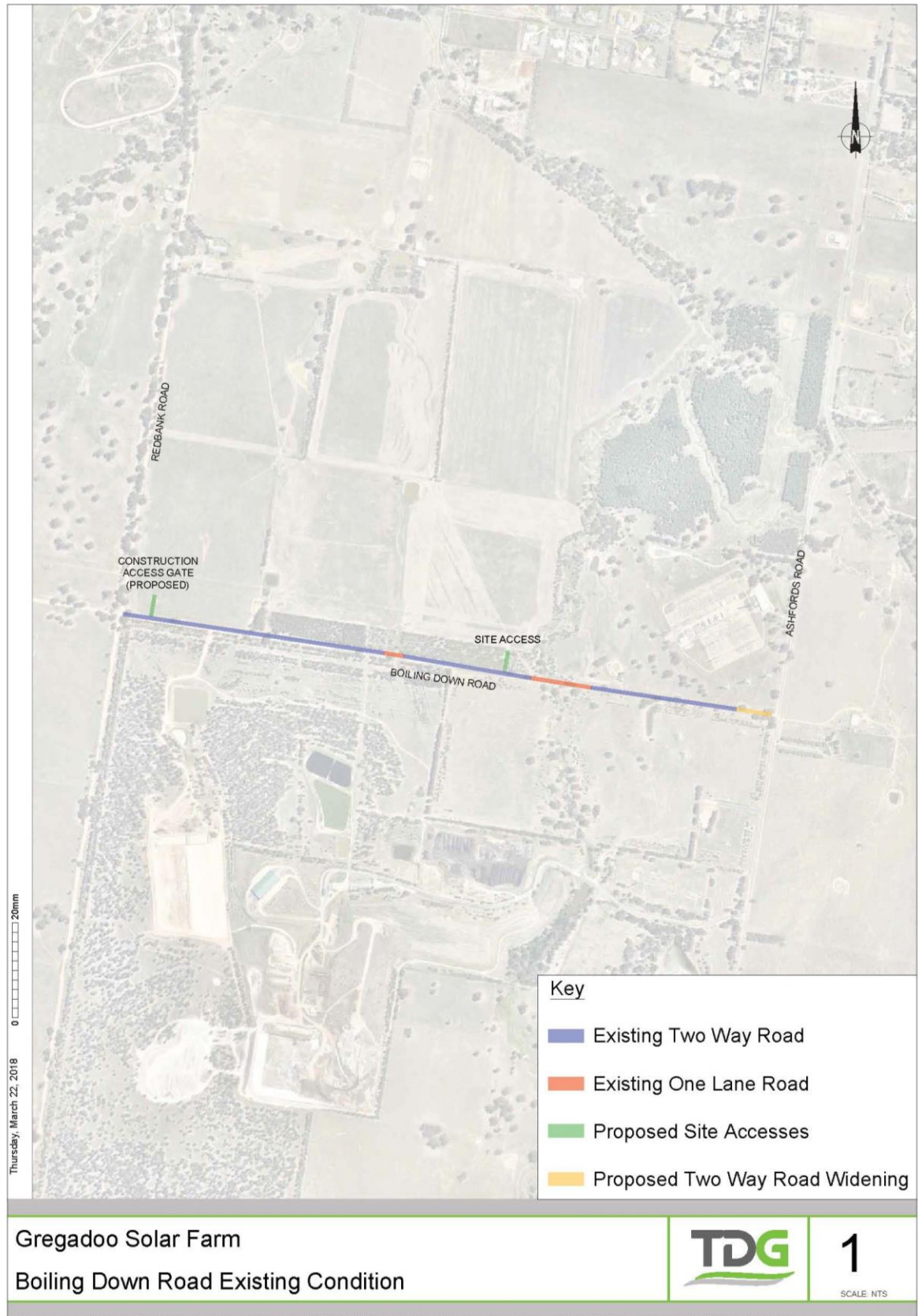








C.3 BOILING DOWN ROAD – EXISTING CONDITION



C.4 APPROVED INTERSECTION UPGRADE PLANS

APPENDIX D VEHICLE MOVEMENT REGISTER

Date of Entry	Time of Entry	Vehicle Reg.	Vehicle size/type	Goods Delivered	Driver Name	Time of exit

APPENDIX E DRIVER CODE OF CONDUCT

The contractors' 'Drivers Code of Conduct' for the Project will include but is not limited to the following:

Penalties and Disciplinary Action

Failure to comply with this Driver Code of Conduct will lead to either the issue of a warning notice or disciplinary action. Standard road regulations apply on all public roads and include temporary roadwork signage. Within the project site drivers must comply with site traffic signage and rules. On site the penalties and disciplinary action will be the responsibility of the company. Drivers must comply with all on site induction processes.

Safe Driving Practices

- All drivers must hold a current and valid driving licence for the class of vehicle that you operate.
- Drivers must notify their employer if they are not fit for duty prior to commencing their shift. Steps for managing driver fatigue is provided in section 6.5.
- Always adjust your driving to the existing road and climatic conditions (refer to Section 6.6).
- You should always drive in a manner that will help you to avoid an accident.
- Take regular breaks on long drives. Drivers of heavy vehicles must adhere to the maximum work requirements and minimum rest requirements outlined in the Heavy Vehicle (Fatigue Management) National Regulation (NSW).
- All vehicles must be maintained and operated in accordance with the vehicle manufacturers recommended standards.
- Always brake with care, remembering that the truck will react differently according to the weight of the load, weight distribution of the load and road surface condition.

Driver Fatigue

The risk of driver fatigue will be managed by toolbox talks on appropriate driving behaviour, including fatigue management. Strategies will include:

- Ensuring sufficient sleep and rest prior to each shift.
- Promote carpooling and shuttle buses.
- Avoid work scheduling which promote excessive work hours.
- Monitor fatigue in staff during work hours and prior to leaving the site, with particular reference to staff travelling long distances.
- Liaise with TfNSW western region Road Safety Unit to provide training.
- Promote regular breaks during long-distance driving.
- Promote abstinence from alcohol, medications which cause drowsiness, and other drugs that may influence fitness for work.
- Promote good exercise and diet.
- Provide assistance programs for staff suffering from stress.

Speed Restriction

Always follow the posted speed limits and advisory speed signs as they provide vital clues to road conditions and characteristics. You must apply the following rules at:

- Always reduce your speed in wet or dry and dusty conditions.

- Drive cautiously in fog or heavy rain.
- Descend hills at sign-posted truck speeds, or in the lowest gear to suit the conditions.
- Always observe the special limits that apply for road works etc.
- Always observe the special speed limits that apply to internal access roads within the construction site.
- DO NOT exceed the posted maximum speed.
- DO NOT drive at speed past schools, school buses, parks, shopping areas etc.

Designated Routes

- All vehicular traffic associated with the development must travel to and from the Project site via Ashfords Road and the approved site entry point.
- Trucks and heavy vehicles must not use local residential streets.
- All delivery vehicles must use the designated haulage routes provided in Section 4.3.

Drivers must stay on the defined routes laid down unless there are exceptional circumstances. Exceptional circumstances include:

- Normal route blocked e.g. flooded.
- A revised route agreed in writing.

Deliveries

- All equipment and goods will be delivered via the nominated site construction compound.
- Deliveries will be recorded on the delivery record sheet (Appendix D) at the time of delivery by the site engineer or delegate.
- When recorded the delivery will be dispatched to the relevant site laydown area or materials storage area as directed by the site engineer or delegate.
- All deliveries to and from the site will be loaded and unloaded on the site.
- All delivery vehicles will enter and leave the site in a forward direction. T
- The unloading of vehicles on adjacent land or public roads will not occur unless directed by NSW Police or other emergency services.
- Platooning and short stacking will be avoided by allowing 10 minutes between heavy vehicles entering and leaving the site to avoid queuing on the road, at the site access point and along site access roads.

APPENDIX F NHVR CHAIN OF RESPONSIBILITY



May 2017

Chain of Responsibility Schedulers

About the chain of responsibility (CoR)

Our road laws generally address the actions of drivers and operators, but breaches of these laws are often caused by other parties in the transport supply chain.

The aim of CoR for a heavy vehicle is to make sure everyone in the supply chain actively prevents breaches of the Heavy Vehicle National Law (HVNL). The CoR law also extends to preventing or reducing potential harm or loss (risks) to yourself and others. Managing (controlling) these risks ensures that you always recognise and carefully consider all potential dangers and satisfactorily reduce or avoid them before they occur.

Who has a responsibility?

Under CoR laws, if you undertake specified functions that exercise, or have the capability of exercising, control or influence over any transport task, you are part of the chain of responsibility and have an obligation to ensure compliance with the HVNL.

What if I have multiple transport tasks?

Everyone in the supply chain has a responsibility to ensure the safety of their transport tasks related to the vehicle. If you carry out *more than one task* in the supply chain, this responsibility will extend to *all* of the tasks that you carry out. You may therefore be classified by *multiple roles* in the transport supply chain under the HVNL.

Your responsibility as a scheduler

As a 'party' in the supply chain, with influence over transport activity, a scheduler has an ongoing responsibility to prevent breaches of speed and fatigue laws under the HVNL. Although schedulers should be aware of mass, dimension and loading issues, they do not have specific HVNL obligations.

As a scheduler, you also have an ongoing responsibility to prevent or reduce potential harm or loss (risks) to yourself and others, and to ensure that you don't ask, require or direct activities you know will breach the law.

Am I carrying out a scheduler's transport tasks?

Under the HVNL, you are classified as a scheduler if you plan the transport of any goods or passengers or schedule the work and rest times of a driver.

A scheduler may also include such persons also known as a planner, roster clerk, programmer, etc. You can use the *CoR checklist* to confirm whether you are classified as an operator for road transport using a heavy vehicle under the HVNL.

Your key responsibilities as a scheduler

Some key responsibilities may include ensuring that:

- journeys and routes are suitably planned with consideration of potential traffic issues and other unexpected delays
- drivers' activities, including work and rest times, are accurately recorded
- regular scheduling reviews are carried out
- there is appropriate consultation with operators, managers, contractors and drivers concerning rosters, schedules and routes
- all necessary scheduling, journey and route information is accessible
- your delivery requirements do not require or encourage drivers to
 - exceed the speed limits
 - exceed regulated driving hours
 - fail to meet the minimum rest requirements
 - drive while impaired by fatigue.

What are the possible penalties for a breach?

As a scheduler, you could be held legally liable for breaches of the HVNL even though you have no direct role in driving or operating a heavy vehicle. If your actions, inactions or demands cause or contribute to an offence, you can be held legally accountable.

Penalties and sanctions can range from formal warnings to court imposed fines and penalties relating to the commercial benefit derived from offences.

Heavy vehicle safety. It's your business.

APPENDIX G TRAFFIC CONTROL PLANS

TCPs will be inserted here once available.

APPENDIX H EXAMPLE FORM

ACKNOWLEDGEMENT

Site Induction Form

Date ____/____/____

I (Your Name)_____ have received the

(Company name)_____ Site induction performed by

(Name of person conducting the induction)_____

I have attended the induction as requested and understand the work methods and safety actions that are required to be undertaken during my employment here.

I also confirm that the following specific points have been read, discussed and understood during my induction.

Please tick the following boxes to indicate instruction or training received		
Company OHS policy and procedures		
Roles and responsibilities		
Hazard identification and control		
Accident, Incident and Hazard forms		
Safe Work Method Statements		
Tool Box Talks		
Drivers Code of Conduct		
Traffic Management Plan		
Traffic Control Plans		
NHVR Chain of Responsibility (training to be provided by contractors' company)		
Signature		

APPENDIX I ROAD DEFECTS RECORD SHEET

Road Defect - Data Collection Template																														
Area																														
Financial Year*																														
Date	District ID	Road ID*	Road Section *		AADT	Road Category	Chainage *		Carriage way Code*	Lane *		Location (optional)			Defect Sub Code*	Defect Size*			Comments*	Defect Rectification*				Amount		Previous 11 months RM claimed works (escalated amount) (C)	RM forward list of works* (D)	Length of the planned rehab/reseal work*	Reduction of RM needs due to planned Rehab/Reseal works* (E)	Routine Maintenance needs (JRMA needs) A+B+C-D-E
			TD Start*	TD End*			Start	End		LHS	RHS	OWP	Centre	IWP		Length/ Numbers	Width	Depth		Activity number*	Quantity*	Unit*	Unit Rate*	Pavement (A)	Roadside (B)					

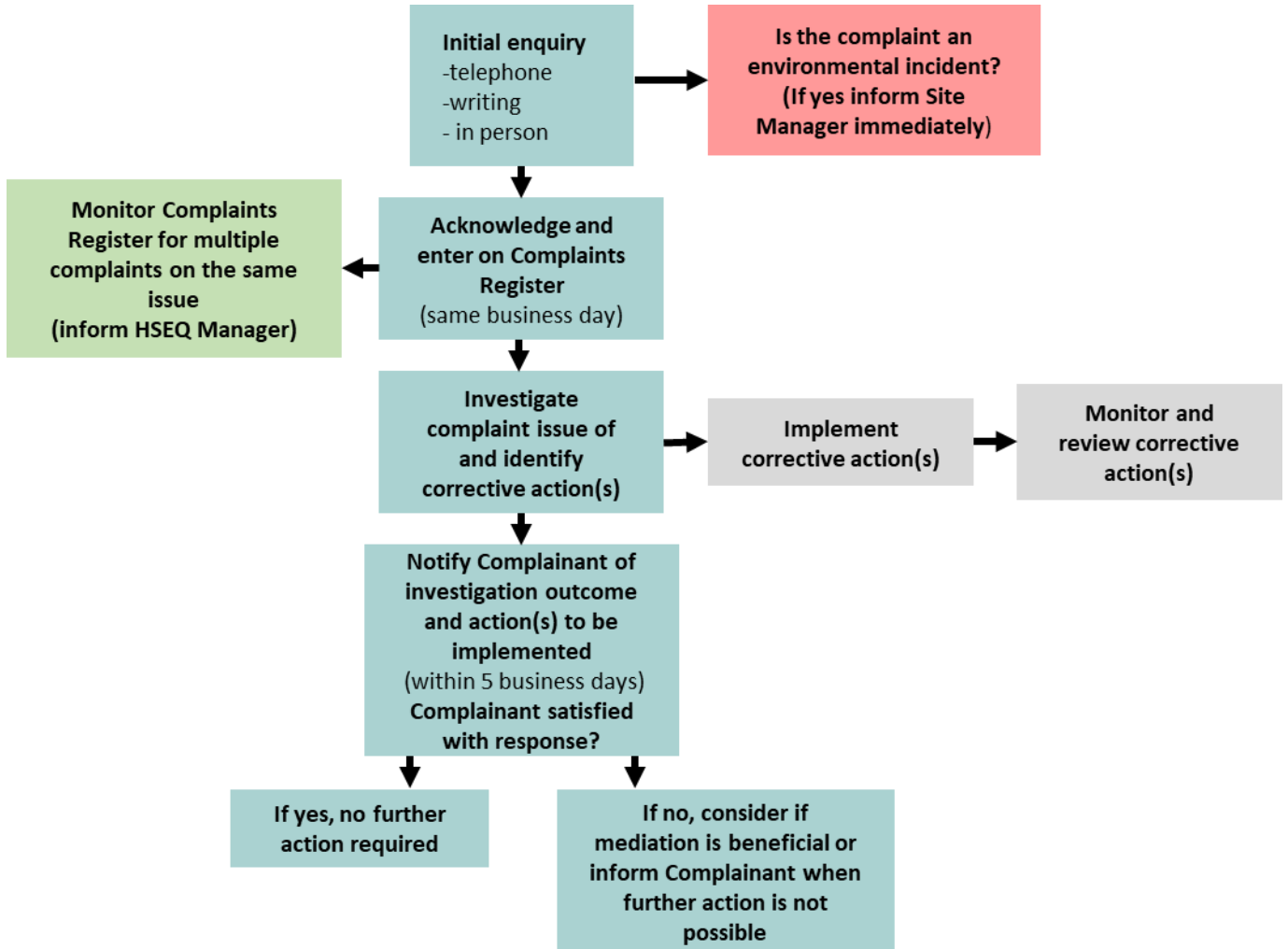
*Mandatory data

Notes:

1. Date to be collected
2. Preferably Road Section length is one km. Thus Through Distance Start and End (TD start, TD End) should be a full number such as 1, 2, 3, 10.
3. Chainage is the starting point of the defect. For example; if TD start is 1 and TD End is 2, then chainage should be between 1 and 2 such as 1.45.
4. Defect length to be recorded in the "Defect Size" field.
5. If any routine maintenance work has been planned for a road section, then that amount to be recorded in the "RM forward list of works" field.
6. If Rehab or Reseal work has been planned for a road section, then the length of the rehab/reseal work to be recorded in the "Length of the planned rehab /reseal work" field.
7. Defect rectification data, Activity number, Quantity needed, Unit and Unit Rate to be recorded in the "Defect Rectification" field.
8. Completed data to be sent to Element Leader by end of financial year.

APPENDIX J COMPLAINTS PROCEDURE

J.1 EXTERNAL COMPLAINTS PROCEDURE



J.2 EXTERNAL COMPLAINTS REGISTER

Date	Time	Mode of contact	Complaint details	Environmental incident (Y/N?)	Complainant name	Complainant contact details	Recorded by (GSF staff member)	Follow up date	Followed up by (GSF staff member)	Corrective action/complaint outcome	Complainant response