INTERNAL

# Traffic and Transport Management Plan EnergyConnect (NSW – Western Section) Stage 2

45860-HSE-PL-D-0018

| REV | DATE | GENERAL DESCRIPTION | PREPARED | REVIEWED | VERIFIED | VERIFIED | APPROVED |
|---|---|---|---|---|---|---|---|
| F | 01/04/22 | Issued for Environmental Representative review | M.Lee | R.Walker-Edwards | G.Crighton | JL.Barrenechea | D.Whatmough |
| G | 13/04/22 | Issued for Environmental Representative review | M.Lee | R.Walker-Edwards | G.Crighton | JL.Barrenechea | D.Whatmough |
| H | 12/07/2022 | Revised to address DPE comments | R.Walker-Edwards | A.Kriegel | A.Boyd | B.Calligeros | S.Basanta |

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| Revision History | |
|---|---|
| **Rev.** | **Detailed Description** |
| A | Issued for internal review |
| B | Issued for internal review |
| C | Updated following internal review and to address the Infrastructure Approval |
| D | For Transgrid review |
| E | Updated following Transgrid comments |
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| G | Updated following receipt of Environmental Representative's comments |
| H | Revised to address DPE comments |
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| Key Document Stakeholders |
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| **To be communicated with during reviews and revisions of this document** |
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## Tables



## Figures

## Abbreviations

| Acronym | Definition |
|---|---|
| Amendment Report | *EnergyConnect (NSW – Western Section) Amendment Report* |
| BAL | Rural Basic Left-Turn Treatment |
| BAR | Rural Basic Right-Turn Treatment |
| BC Act | *Biodiversity Conservation Act 2016* |
| CCS | Community Communication Strategy |
| CEMP | Construction Environmental Management Plan |
| CoR | Chain of Responsibility |
| CSSI | Critical State significant infrastructure |
| Cth | Commonwealth of Australia |
| DAWE | Australian Department of Agriculture, Water and the Environment |
| DCC | Drivers Code of Conduct |
| DECCW | (former) Department of Environment, Climate Change and Water |
| DPE or Department | Department of Planning and Environment |
| DPIE | NSW Department of Planning, Industry and Environment, now known as Department of Planning and Environment |
| EIS | *EnergyConnect (NSW – Western Section) Environmental Impact Statement* |
| EP&A Act | *Environmental Planning and Assessment Act 1979* |
| EPBC Act | *Environment Protection and Biodiversity Conservation Act 1999* |
| EPL | Environment Protection Licence |
| ER | Environmental Representative |
| ESCP | Erosion and Sediment Control Plan |
| EWMS | Environmental Work Method Statement |
| Final BDAR | *Revised Biodiversity Development Assessment Report* (August, 2021) |
| FRP | Flood Response Plan |
| GCM | Gross Combination Mass |
| GVM | Gross Vehicle Mass |
| HSSE | Health Safety Security and Environment |
| HVNL | Heavy Vehicle National Law |
| IVMS | In Vehicle Monitoring System |
| kV | Kilo Volt |
| LGA | Local government area |
| LoS | Level of Service |
| LSE | Large specialist equipment |
| NHVR | National Heavy Vehicle Regulator |
| NSW | New South Wales |
| OSOM | Oversize Overmass |
| project, the | EnergyConnect (NSW – Western Section) |
| PMT | Project Management Team |
| Response to DPIE Request for Information | The 'additional information letter dated 10 August 2021' in the definition section of the Infrastructure Approval; document is also titled *EnergyConnect (NSW – Western* |

| Acronym | Definition |
|---|---|
| | *Section) Response to DPIE Request for Information – 7 May 2021 and subsequent discussions* |
| RMMs | Revised mitigation measures |
| ROL | Road Occupancy Licence |
| SA | South Australia |
| SAP | Sensitive Area Plan |
| SecureEnergy | Elecnor and Clough Projects Australia Pty Ltd have formed the SecureEnergy Joint Venture (SecureEnergy). SecureEnergy is the contractor who will be carrying out the project on behalf of Transgrid. |
| SSI | State significant infrastructure |
| Submissions Report | *EnergyConnect (NSW – Western Section) Submissions Report* |
| TCP | Traffic Control Plan |
| TfNSW | Transport for New South Wales |
| TTMP, this plan | Traffic and Transport Management Plan |
| VMP | Vehicle Movement Plan |
| WMS | Work Method Statement |

# 1 Introduction

## 1.1 Context

This Traffic and Transport Management Plan (TTMP or plan) forms part of the Construction Environment Management Plan (CEMP) for Stage 2 of EnergyConnect (NSW – Western Section).

This document has been prepared for construction activities undertaken during Stage 2 of the project, and supersedes the existing Stage 1 SWMP. It does not address the operational phase of the project.

This plan has been prepared to address the relevant requirements of the Infrastructure Approval (SSI 10040), the *EnergyConnect (NSW – Western Section) Environmental Impact Statement* (EIS), *EnergyConnect (NSW – Western Section) Submissions Report* (Submissions Report), *EnergyConnect (NSW – Western Section) Amendment Report* (Amendment Report) and the additional information letter dated 10 August 2021 (Response to DPIE Request for Information).

## 1.2 Background

On 29 August 2019, the New South Wales (NSW) Minister for Planning and Public Spaces declared the NSW component of EnergyConnect to be critical State significant infrastructure (CSSI) under the *Environmental Planning and Assessment Act 1979* (EP&A Act) on the basis that it is critical to the State for environmental, economic or social reasons. Within NSW, EnergyConnect is therefore subject to assessment under Part 5, Division 5.2 of the EP&A Act.

Transgrid have two environmental planning approval applications for the sections within NSW:

- EnergyConnect (NSW – Western Section) – SA/NSW border to Buronga and Buronga to the NSW/Victorian border (the project); and
- EnergyConnect (NSW – Eastern Section) – Buronga to Wagga Wagga.

A referral under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) was submitted on 27 May 2020. The Australian Department of Agriculture, Water and the Environment (DAWE) determined the project to be a controlled action on 26 June 2020 and thus, it would be assessed using the bilateral assessment process. As such, the project also requires approval from the Australian Minister for the Environment under the EPBC Act.

The EIS was prepared for the project in October 2020 and was placed on public exhibition from 30 October 2020 to 10 December 2020. A total of 20 submissions were received, with 15 from government agencies, three from organisations and two from the public.

The Submissions Report was prepared for the project in response to the submissions and was finalised on 14 April 2021.

Transgrid also prepared a separate Amendment Report to document design changes and additional environmental assessment undertaken since exhibition of the EIS. The Amendment Report describes the updated project for which approval was sought and was finalised on 14 April 2021.

On 7 May 2021, Department of Planning, Industry and Environment (DPE or Department) requested additional information (*EnergyConnect (NSW – Western Section)(SSI-10040) Request for Additional Information*) to assist with the assessment of the project. In response Transgrid prepared and provided the Response to DPIE Request for Information, which included revised mitigation measures (RMMs) which are to be applied. The Response to DPIE Request for Information was dated 10 August 2021.

Approval for the project under the EP&A Act was granted by the NSW Minister for Planning and Public Spaces (Infrastructure Approval SSI 10040). Approval for the project under the EPBC Act was granted by the Australian Minister for the Environment.

Transgrid have engaged SecureEnergy, a joint venture between Elecnor and Clough Projects Australia Pty Ltd to design and construct their portion of the EnergyConnect project.

## 1.3 Staging

Condition E2 allows preparation of plans on a staged basis, with the approval of the Planning Secretary. Where a plan is staged, the scope of works can be carried out without addressing particular requirements of conditions of approval that are not applicable to the particular stage. This SWMP is staged in accordance with condition E2.

The conditions of the Infrastructure Approval, and the RMMs identified in the Response to DPIE Request for Information, that are relevant to construction phase traffic and transport are included in Table 2.1 and Table 2.2. The applicability of each requirement to this TTMP is also addressed in the identified tables.

This TTMP has been prepared specifically for EnergyConnect (NSW – Western Section) Stage 2 and will be implemented for the duration of Stage 2 of construction. The key project components of Stage 2 of construction include, but are not limited to, the activities provided in Table 1.1.

**Table 1.1 - Key project components of Stage 2 of construction**

| Key activity | Description of key activity |
|---|---|
| Pre-construction minor works permitted in accordance with the Infrastructure Approval | Key activities nominated in this stage will have already commenced as part of the pre-construction minor works permitted in accordance with the Infrastructure Approval.<br>The definition of 'construction' within the Infrastructure Approval excludes these activities. They will therefore not be subject to the Stage 2 CEMP and CEMP sub-plans. Irrespective of this, these activities will occur in accordance with the relevant conditions of the Infrastructure Approval.<br>Key activities include:<br>• environmental investigations, including biodiversity and heritage protection, salvage and recordings;<br>• Aboriginal heritage assessment, mitigation (ie exclusion zones) and salvage activities, including subsurface testing/test excavation, additional survey, and consultation with RAPs;<br>• other survey work, such as road dilapidation surveys, and surveys of the general alignment and existing utilities;<br>• installation of environmental management measures, fencing, and enabling works; and<br>• connections and pre-commissioning of utilities (wastewater treatment plant, electrical power, lighting and etc.). |
| Continuation of any outstanding Stage 1 construction activities | Construction activities undertaken during Stage 1 of the project will continue where required. This includes, but is not limited to continuation of the following activities:<br>• any outstanding construction earthworks activity at the Buronga substation;<br>• operation of the Buronga earthworks material site, including the crushing and screening plant, where required;<br>• operation of the Buronga construction compound including offices and laydown area; and<br>• use of access and egress points. |
| Establishment of Wentworth accommodation camp | The main activities that would be undertaken at the Wentworth accommodation camp and construction compound and the Anabranch South ancillary construction site include:<br>• clearing of vegetation within the disturbance area;<br>• clearing and removal of topsoils. Topsoil would be stockpiled on site for later reuse; |
| Establishment and operation of Wentworth construction compound | |

| Key activity | Description of key activity |
|---|---|
| Establishment and operation of Anabranch South ancillary construction site | • establishing the Wentworth accommodation and associated facilities, site offices, amenities, wastewater treatment plant, power generators, hazardous material and fuel storage area, and internal roads;<br>• establishing and operating Wentworth construction including but not limited to amenities compound site offices, concrete batching plant, internal roads and other ancillary facilities; and<br>• establishing and operating Anabranch South ancillary construction site laydown areas, vehicle and equipment storage, maintenance sheds, potential stockpile areas, demountable offices and parking. |
| Buronga substation upgrade and expansion | The existing Buronga 220kV substation would be upgraded and expanded to add a new 330kV substation on the land parcel adjacent to the existing 220kV substation. The upgrade and expansion of the Buronga substation would consist of the following key activities in addition to the works undertaken during Stage 2 of construction:<br>• civil works including:<br>– underground mesh installation (earthing grid);<br>– foundation and footing works for the electrical equipment; and<br>– installation of the synchronous condenser (SynCon) building slab;<br>• mechanical works including:<br>– erection of the SynCon, transformers, shunt reactor and capacitor banks;<br>– installation of oil treatment;<br>– gantry erection;<br>– installation of electrical equipment;<br>– installation of supporting steel structure;<br>– overhead HV cables and cable pulling;<br>– switchyard building installation (including control equipment); and<br>– construction of the SynCon building;<br>• electrical works including:<br>– LV cable pulling, cable dressing and terminations; and<br>– outdoor installation of the lighting system. |
| Establishment of ancillary facilities along the transmission line corridor | A number of minor staging, storage and laydown ancillary areas would be required within the project corridor for temporary storage of materials, plant and equipment required to construct the various elements of the proposal (in particular transmission line structures). Some temporary mobile batching plant locations may also need to be established to enable for easily access to concrete.<br>Upon completion of works, these ancillary sites would be cleared of any temporary infrastructure and equipment, and rehabilitated. These sites would be in place for shorter periods at locations suitable to support the construction works as they move along the alignment. |
| Property adjustment work, including adjustments to property fencing | Installation or adjustment of gates and fences would be required at some locations along the alignment to enable access from the nearest roadway to construction areas. These would be constructed in consultation with the relevant council and/or affected landholder. |
| Water supply points – establishment and/or use | A series of water supply points have been identified as suitable connection points to existing water supply pipelines. The proposed water supply points which are to be established and / or used include:<br>• Alcheringa Drive, Buronga;<br>• Modica Crescent, Buronga;<br>• Fletchers Lake Road, Dareton;<br>• Beverley Street, Wentworth; and<br>• 690 Pomona Road, Pomona/Oxley Drive, Pomona. |

| Key activity | | Description of key activity |
|---|---|---|
| Construct access points | | The establishment of access points would include:<br>• establishing vehicle access and egress points including adjustment of state and regional roads to ensure safe vehicle movements; and<br>• establishing truck wheel wash or rumble grids.<br>The definition of construction within the Infrastructure Approval does not include road upgrades (which includes access points). Road upgrade works are, however, incorporated within the Traffic and Transport Management Plan as required by condition D40 b). |
| Construct access tracks | | Access to each tower would be required during construction. Access tracks would be required to be traversable by a range of vehicles. Access tracks would fall into two broad groups:<br>• un-improved access tracks - using existing roads or tracks, or driving on existing soil or ground surface with minimal or no prior preparation; and<br>• constructed access tracks – around six metres wide and would generally follow the natural contour of the land as far as practicable to minimise the amount of cut and fill and soil disturbance. Access tracks would also include drainage control features such as table drains or cross banks to minimise erosion.<br>Constructed access tracks would be required in areas, outside identified heritage risk zones, where there are no existing roads or tracks, or where terrain conditions prevent continuous access along the line easement between road crossings. |
| Temporary works | | The project will require a significant quantity of temporary works during construction. Temporary works will be undertaken outside identified heritage risk zones. The temporary works will include, but not be limited to, the following:<br>• earthworks, including trenches, excavations, temporary slopes, stockpiles, and embankments;<br>• structures, such as formwork, shoring, edge protection, temporary bridges, solid fencing/guardrails/barriers and signage, temporary scaffold; and<br>• equipment/plant foundations, such as work platforms, crane, and piling platforms. |
| Transmission line construction | Earthworks and transmission tower footing construction | Excavation works and establishment of construction pads at each tower site would be required for the installation of foundations, levelling around the individual tower foundations, drainage and grading or preparation for construction at the tower site. Excavations would typically be up to five metres in depth. Construction of footings and foundation works for the new transmission line towers includes:<br>• piling. Typical transmission line tower piling depth would be generally up to 6-15 metres below ground level and would depend on ground conditions (e.g. greater piling depths would be required where soft soil types are present). The foundation type would also vary (subject to detailed design) but would consist of either:<br>– bored pile (reinforced concrete);<br>– driven or screw pile (concrete or steel); and<br>– helical screw anchor, or cast in-situ reinforced concrete;<br>• excavation to create bench sites (stepped ground excavation) where required to provide a level platform for equipment setup, the erection of the tower and other construction activities. Benching would be constructed by use of earthing equipment such as graders and excavators;<br>• steel fabrication works; and<br>• concrete pours. |
| | Assembly and erection of transmission line towers | The transmission line towers would typically be erected by assembling in sections on the ground and hoisting or lifting successive sections into place using cranes.<br>Alternatively, towers may be erected in place on the footings by installing individual members. These towers would include infrastructure such as step bolts, climbing attachment plates, ladders, platforms, climbing barriers, identification plates, warning plates, other fixtures and fittings for the attachment of earthwires and insulators. |

| Key activity | | Description of key activity |
|---|---|---|
| | Stringing of transmission lines including conductors and overhead earth wires and optical ground wire | Following erection and securing of the tower, the transmission line would be strung by either a ground pulled draw wire (with brake/winch sites) or a line stringing drone.<br>The area required for the construction of each tower would require access for tower assembly and stringing works. Where a transmission tower is proposed to allow for a direction change of the transmission line, a larger area would be required (to allow for brake and winching sites). At a typical site, this would include a temporary area of up around 60 metres by 80 metres at each transmission line tower location.<br>Stringing of transmission line would also be required across the following three major watercourses:<br>• the Great Darling Anabranch, Wentworth NSW;<br>• Darling River, Ellerslie NSW; and<br>• Murray River, Monak NSW / Red Cliffs Victoria.<br>The general construction methodology is to assemble and erect a transmission line structure on either side of each major river crossing. A drone would then be used to take a lead wire over the river to allow cables to then be pulled and strung tower to tower. |
| | Installation of earthing conductors | The following key activities will be undertaken:<br>• installation of earthing conductors at each of the transmission tower arms; and<br>• installation of earthing or isolation sections of fences and gates where the transmission line crosses or closely runs parallels to a metallic fence. |
| Utility works, adjustments and protection | | Utility adjustment works would be required to convert several overhead distribution powerlines up to and including 66kV to underground cables.<br>The existing alignment of the Broken Hill transmission line would require relocation at two locations. This would comprise of:<br>• a permanent relocation of the existing transmission line in the vicinity of the Darling River. This would require the construction of two new monopoles, and the stringing of conductors/earth wires between the existing and new structures. The redundant tower would be decommissioned; and<br>• a temporary relocation of a section of the existing transmission line that currently passes through the existing Buronga substation. This would be temporarily relocated around 200 metres to the east of its current alignment (along the eastern boundary of the existing substation site). Once the construction works to upgrade the substation are completed, the alignment of the 220kV Broken Hill line would be restored in a location generally consistent with the original line location.<br>General utility works, adjustment and protection including internal and external drainage, to allow for the Buronga substation expansion and upgrade works to occur and the establishment and operation of the construction compound. |
| Decommissioning of existing infrastructure | | Decommissioning and removal of:<br>• the existing 220 kV transmission line between Buronga substation and the NSW / Victoria border;<br>• the temporary bypass transmission line infrastructure installed to allow construction of the new double circuit 220kV line; and<br>• a single tower on the existing 220kV Broken Hill line in the vicinity of the Darling River. |
| Progressive site rehabilitation and landscaping | | Site rehabilitation would be carried out progressively along completed sections of the transmission line as well as the expanded substation site. These activities include:<br>• removal of redundant environmental controls within the transmission tower easement; and<br>• removal of temporary equipment and machinery. |

Some activities nominated in this stage will have already commenced as part of the pre-construction minor works permitted in accordance with the Infrastructure Approval. These works will remain

excluded from the definition of 'construction' and will therefore not be subject to the Stage 2 CEMP and this TTMP.

## 1.4 Environmental management system

The overall environmental management system for the project is described in Section 4 of the CEMP – Environmental management system.

This TTMP is a sub-plan that forms part of the CEMP and is also part of the environmental management framework for the project, as described in the CEMP. Figure 1.1 shows the CEMP framework for the project.

Management measures identified in this plan will be incorporated into relevant site-based documents including, but not limited to, site or activity specific work pack or work method statements (WMS), sensitive area plans (SAPs) or training and awareness material.

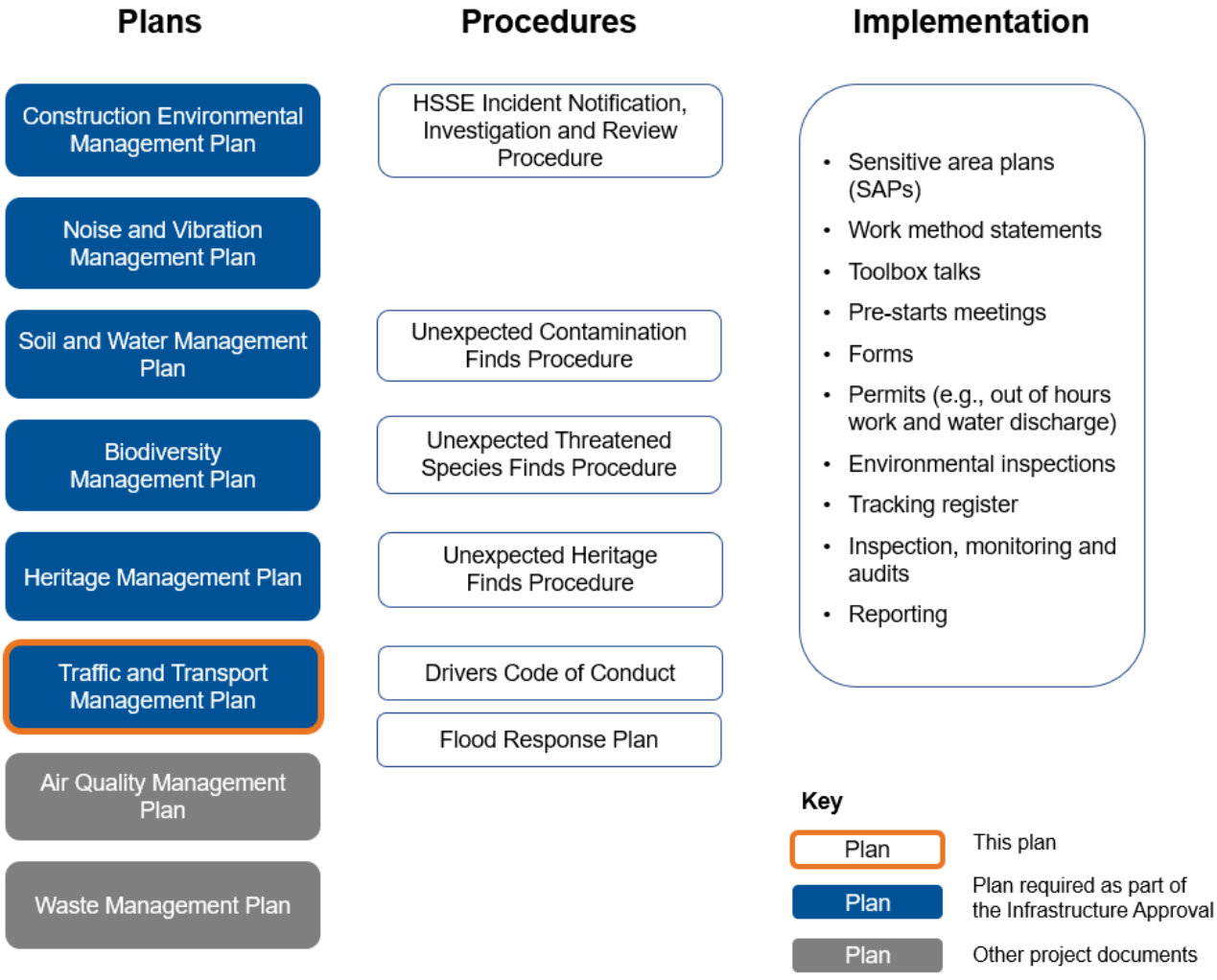


**Figure 1.1 - CEMP framework**

## 1.5 Purpose and objective

The purpose of this TTMP is to describe the approach to manage traffic and transport impact that will be adopted during construction of the project.

The key objective of this plan is to detail management measures and inform site procedures for implementation so that traffic and transport impacts are minimised and within the scope permitted by the Infrastructure Approval. To achieve this, the following will be undertaken:

- implement appropriate measures to minimise traffic and transport impacts during construction of the project;
- implement appropriate measures to address the requirements outlined in the Infrastructure Approval, EIS and Response to DPIE Request for Information; and
- implement appropriate measures to comply with relevant legislation as outlined in Section 2.1.

As a means of assessing environmental performance, environmental objectives (performance measures), targets (criteria) and performance indicators have been established for the project and are provided within Section 4.2 of the CEMP – Objectives and targets. The performance measures and indicators relevant to traffic and transport management are detailed within Table 1.2.

**Table 1.2 - Environmental objectives, targets and performance indicators relevant to traffic and transport**

| Aspect | Objectives (performance measures) | Targets (criteria) | Performance indicators |
|---|---|---|---|
| Traffic | Provide a safe environment for road users | No death or injury to workers and the public as a result of traffic incidents | Number of incidents recorded relating to traffic |
| Traffic | Minimise disruption to traffic operation, road users, and access to adjoining properties | No traffic related infringements or penalties | Number of regulatory infringements, formal regulatory warning, audits |
| Traffic | Minimise complaints due to traffic, transport and access from community | Implementation of the management measures in this plan<br>Respond to traffic related complaints in a timely manner, as outlined in the Community Communication Strategy | Follow up action of incidents as recorded in incident reports<br>Follow up action of complaints as recorded in Consultation Manager |
| Traffic | Compliance with Road Occupancy Licence conditions | Zero non-compliances | Number of non-compliances arising from monitoring |

## 1.6 Preparation of this plan

In accordance with condition B6 of the Infrastructure Approval, this plan has been prepared and reviewed by a suitably qualified and experienced person. This plan was prepared by Katrina Nestmann and Martin Lee.

## 1.7 Consultation

### 1.7.1 Development of this plan

In accordance with condition B2(e) of the Infrastructure Approval, this plan has been prepared in consultation with:

- Transport for New South Wales (TfNSW); and
- Wentworth Shire Council.

The plan was issued to relevant stakeholders for review and comment. Comments from the consultation process have been incorporated into this plan where appropriate. Details of all consultation with TfNSW and Wentworth Shire Council will be submitted to DPE along with the submission of this TTMP.

### 1.7.2 Ongoing communication and consultation

SecureEnergy will use a range of tools in accordance with the *Community Communication Strategy* (CCS) (45860-CM-PL-G-1001) to facilitate ongoing consultation and communication with the community and stakeholders regarding the project.

Communication tools will be used by the project to inform stakeholders and the community of periodic traffic related impacts, including proposed road network changes, movement of oversize overmass (OSOM) vehicles and access impacts. Communication tools include, but are not limited to, stakeholder briefings, project website, community drop-in sessions via the project's mobile van, door knocks and project factsheets. Notifications will be issued for, but not limited to following, commencement of construction, significant milestones and changes to the scope of work. Refer to the CCS for further information.

Co-ordination of traffic management arrangements between major construction projects will occur in consultation with the relevant road authorities (TfNSW and local councils). This will consider any potential conflicts in relation to deliveries and identified haulage routes during the program.

In accordance with condition E12 a) of the Infrastructure Approval, project documents including the EIS, approved strategies, plans or programs required under the conditions of approval and independent reports will be publicly available on the project website. The project website is https://www.projectenergyconnect.com.au. A 24-hour toll-free telephone number (1800 560 577) is also available for any project enquiries.

### 1.7.3 Complaints

Complaints will be managed by the Community and Stakeholder Engagement Team with the use of Consultation Manager database. Complaints will be received via phone calls, emails and letters. Any complaint received is regarded as a high priority and will be recorded, tracked and responded to in accordance with the CCS. Complaints will be investigated and dealt with impartially. The key principles of the complaint management process include:

- acknowledge - SecureEnergy staff should respect the communities' right to voice their concerns. All complaints received should be acknowledged to the complainant either by telephone or in writing;
- resolve - SecureEnergy staff should aim at first contact, resolution for all community concerns. SecureEnergy staff should investigate community concerns in detail before negotiating a resolution. All SecureEnergy staff should use their relevant discretions to achieve a mutually acceptable resolution to complaints;
- escalate - all SecureEnergy staff should aim to escalate the complaint if the community member remains dissatisfied with the investigation and/or resolution offered by their first point of contact at SecureEnergy. All complaints where community request to speak to a higher-level representative, should also be escalated;
- record – SecureEnergy staff should aim through the Engagement Team at recording all relevant information, on the community account in Consultation Manager System, regarding customer concerns along with details of all discussions had with the community member in the process of investigating and/resolving the complaint. Detailed information on the resolutions offered to address community concerns should also be clearly recorded;
- communicate – SecureEnergy staff should remain in constant touch with the community member while their concerns are being investigated. The community member should be informed of all steps of the investigation and the resulting outcome at appropriate times;
- report – SecureEnergy should report on all complaints received to the SecureEnergy Management Team and Transgrid. The reporting should include information on the number as well as type of complaints being received, the status of these complaints from time to time and the resulting outcomes or resolutions offered to close them;
- feedback – the SecureEnergy Engagement Team should aim at regular and intensive reviews to identify possible trends in the complaints being received. These reviews should be aimed at highlighting improvements required to avoid complaints being repeated; and
- action - SecureEnergy should aim at effective implementation of improvements suggested directly by the community or highlighted by complaint trends.

Wherever possible, complaints will be resolved directly between SecureEnergy and the stakeholder. If a complaints management process has been followed and the issue cannot be resolved, dispute resolution will be undertaken in accordance with the CCS. DPIE may request the Environmental Representative (ER) to assist in dispute resolution of community complaints.

All complaints will be provided to the ER and a summary of complaints received, such as a complaint register, will be updated monthly on the project website.

## 1.8 Submission and approval

Prior to submission to DPE, the TTMP will be reviewed by the ER to ensure that the plan is consistent with the requirements of the Infrastructure Approval. A written statement to this effect will be prepared and submitted to DPE. This review will be undertaken in accordance with condition A19 of the Infrastructure Approval.

This TTMP will be submitted to DPE for review and approval by the Planning Secretary prior to commencing Stage 2 of construction.

Stage 2 of construction will not commence until the CEMP and all sub-plans required under condition B2, or where staging is proposed the plans required for that stage, have been approved by the Planning Secretary. The approved TTMP will then be implemented for the duration of the Stage 2 construction activities.

## 1.9 Periodic review

This TTMP will be reviewed at least annually and updated, if required, in accordance with Section 1.10 of the CEMP – Updating the CEMP. Any updates to the TTMP will be approved in line with Section 1.10 of the CEMP – Updating the CEMP.

# 2 Environmental Requirements

## 2.1 Legislation

Legislation relevant to the management of traffic and transport includes:

- *Environmental Planning and Assessment Act 1979;*
- *Environmental Planning and Assessment Regulation 2000;*
- *Roads Act 1993;*
- *Dangerous Goods (Road and Rail Transport) Act 2008;*
- *Road Transport Act 2013;*
- *Heavy Vehicle (Adoption of National Law) Act 2013 No 42a;*
- *Road Rules 2014;* and
- *Work Health and Safety Act 2011*.

Relevant provisions of the above legislation are detailed within the register of legal and other requirements included in Appendix A1 of the CEMP. The legislation relevant to traffic and transport is replicated in Appendix C of this TTMP.

## 2.2 Conditions of Approval

The conditions of the Infrastructure Approval relevant to traffic and transport for Stage 2 of the project are presented in Table 2.1. A cross reference is also included to indicate where the condition is addressed within this plan or other project management documents.

**Table 2.1 - Conditions of Approval relevant to traffic and transport**

<table>
<tr><th>Condition no.</th><th>Requirement</th><th>Where addressed</th><th>How addressed</th></tr>
<tr><td>B1</td><td>Prior to commencing construction, a Construction Environmental Management Plan (CEMP) must be prepared to detail how the performance outcomes, commitments and mitigation measures specified in the EIS will be implemented and achieved during construction to the satisfaction of the Planning Secretary.</td><td>Section 2.3<br>Section 6<br>The CEMP</td><td>The CEMP has been prepared and will be implemented during construction. The CEMP incorporates and responds to all relevant conditions of the Infrastructure Approval and RMMs identified in the EIS, Submissions Report, Amendment Report and Response to DPIE Request for Information.<br>Section 2.3 and Section 6 of this TTMP describe how the commitments of the EIS relevant to traffic will be implemented.</td></tr>
<tr><td>B2</td><td>The following CEMP Sub-plans must be prepared in consultation with the relevant government agencies identified for each CEMP Sub-plan in Table 1.
<table>
<tr><th></th><th>Required CEMP Sub-plan</th><th>Relevant government agencies and stakeholders to be consulted for each CEMP Sub-plan</th></tr>
<tr><td>(e)</td><td>Traffic and Transport</td><td>TfNSW<br>Council</td></tr>
</table></td><td>Section 1.7</td><td>This TTMP was provided to TfNSW and Wentworth Shire Council for consultation.<br>Comments from the consultation process have been incorporated into this plan where appropriate.</td></tr>
</table>

| Condition no. | Requirement | Where addressed | How addressed |
|---|---|---|---|
| B3 | Details of all information requested by an agency to be included in a CEMP Sub-plan as a result of consultation must be provided with the relevant CEMP Sub-Plan. | Section 1.7 | This TTMP has been developed in consultation with TfNSW and Wentworth Shire Council. Details of all consultation will be submitted to DPE along with the submission of this TTMP. |
| B4 | Any of the CEMP Sub-plans may be submitted along with, or subsequent to, the submission of the CEMP but in any event prior to the commencement of construction. | Section 1.8 | This TTMP will be submitted as a CEMP Sub-Plan to DPE for review and approval by the Planning Secretary prior to commencing Stage 2 of construction. |
| B5 | Construction must not commence until the CEMP and all CEMP Sub-plans have been approved by the Planning Secretary. The CEMP and CEMP Sub-plans, as approved by the Planning Secretary, must be implemented for the duration of construction. Where construction of the development is staged, construction of a stage must not commence until the CEMP and sub-plans for that stage have been approved by the Planning Secretary. | Section 1.8 | Stage 2 of construction will not commence until the CEMP and all CEMP Sub-plans (including this TTMP), or where staging is proposed and the plans required for that stage, have been approved by the Planning Secretary.<br>The CEMP and CEMP Sub-plans (including this TTMP) will be implemented for the duration of construction for Stage 2. |
| B6 | The CEMP and CEMP Sub-plans required under this approval must be prepared by suitably qualified and experienced persons in accordance with relevant guidelines, and include where relevant: | Title page<br>Section 1.6 | This TTMP has been prepared by suitably qualified and experienced people and in accordance with relevant guidelines. |
| | a) a summary of relevant background or baseline data; | Section 3 | The existing environment related to traffic for Stage 2 is outlined in Section 3 |
| | b) details of: | | |
| | (i) the relevant statutory requirements (including any relevant approval or licence conditions); | Section 2<br>Appendix C | The relevant legislation, conditions, RMMs and guidelines applicable to traffic and transport are outlined in Section 2.<br>Appendix C provides further detail on the relevant legislation applicable to traffic and transport. |
| | (ii) any relevant limits or performance measures and criteria; and | Section 1.5<br>Section 4.2 of the CEMP – Objectives and targets | The objectives (performance measures) and targets (criteria) relevant to traffic and transport management are outlined in Section 1.5.<br>The CEMP also provides project-wide environmental objectives (performance measures) and targets (criteria). |
| | (iii) the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the development or any management measures; | Section 1.5<br>Section 4.2 of the CEMP – Objectives and targets | The performance indicators relevant to traffic and transport management are outlined in Section 1.5.<br>The CEMP also provides project-wide performance indicators. |
| | c) any relevant commitments or recommendations identified in the EIS; | Section 2.3 | Relevant traffic commitments and recommendations identified in the EIS, known as RMMs, have been outlined in Section 2.3 |

| Condition no. | Requirement | Where addressed | How addressed |
|---|---|---|---|
| | d) a description of the measures to be implemented to comply with the relevant statutory requirements, limits, or performance measures and criteria; | Section 6 | Specific traffic related safeguards and management measures to address potential impacts associated with Stage 2 of construction and comply with the relevant statutory requirements, limits and performance measures are outlined in Section 6. |
| | e) a program to monitor and report on the: | | |
| | (i) impacts and environmental performance of the development (including a table summarising all the monitoring and reporting obligations under the conditions of this approval); and | Section 7, including:<br>Section 7.3<br>Section 7.4<br>Section 7.5<br>Section 7.6 | Monitoring, inspections, auditing and reporting is outlined in Sections 7.3 to 7.6 of this TTMP. |
| | (ii) effectiveness of the management measures set out pursuant to paragraph d); | Section 7 | Monitoring the effectiveness of the management measures is outlined in Section 7. |
| | f) a contingency plan to manage any unpredicted impacts and their consequences and to ensure that ongoing impacts reduce to levels below relevant impact assessment criteria as quickly as possible; | Section 7.8<br>Appendix A<br>Section 8 of the CEMP - Incidents and emergencies<br>Section 10 of the CEMP – Reporting<br>Section 11 of the CEMP – Non-compliance, non-conformance, corrective and preventative action | Section 7.8 outlines a contingency plan in the event that unpredicted impacts are identified.<br>The CEMP also provides additional detail regarding incidents and emergencies, reporting, non-compliance, non-conformance, corrective and preventative actions. |
| | g) a program to investigate and implement ways to improve the environmental performance of the development over time; | Section 1.9<br>Section 7<br>Section 1.9 of the CEMP – Continuous improvement | Section 7 of this TTMP outlines procedures for compliance management, including details for monitoring, inspections, auditing and reporting.<br>This TTMP will be reviewed at least annually as described in Section 1.9 of this TTMP and Section 1.9 of the CEMP.<br>The Plan-Do-Check-Act model will be applied to the continuous improvement process, also outlined in Section 1.9 of the CEMP. |

| Condition no. | Requirement | Where addressed | How addressed |
|---|---|---|---|
| | h) a protocol for managing and reporting any:<br>(i) incident, non-compliance or exceedance of any impact assessment criterion and performance criterion; | Section 7.7<br>Section 7.8<br>Section 8 of the CEMP - Incidents and emergencies<br>Section 10 of the CEMP – Reporting<br>Section 11 of the CEMP – Non-compliance, non-conformance, corrective and preventative action | Section 7.7 and 7.8 describes the procedures for emergencies, incidents and non-compliances, including those related to traffic.<br>Additional detail for managing incidents and emergencies, non-compliances and non-conformances is included in the CEMP.<br>The protocol for reporting of any incidents, non-compliances or non-conformances is included in Section 10 of the CEMP. |
| | (ii) complaint; or | Section 1.7.3<br>CCS | A summary of the complaints management procedure and reporting of complaints is included in Section 1.7.3 of this TTMP.<br>The procedure for managing and reporting any complaints is described in the *Enquiries, Complaint and Dispute Resolution Management Procedure* provided in the CCS. The procedure includes a complaints management process which outlines how SecureEnergy will respond to complaints related to the project. |
| | (iii) failure to comply with other statutory requirements; and | Section 7.7<br>Section 8 of the CEMP – Incidents and emergencies<br>Section 10 of the CEMP – Reporting<br>Section 11 of the CEMP – Non-compliance, non-conformance, corrective and preventative action | In the event of failure to comply with statutory requirements, the procedures summarised in Section 7.7 of this TTMP and described in more detail in the CEMP would be followed. |

| Condition no. | Requirement | Where addressed | How addressed |
|---|---|---|---|
| | i) set out the procedures that would be implemented to:<br>(i) keep the local community and relevant agencies informed about the operation and environmental performance of the development; | Section 1.7.2<br>CCS<br>Section 7.1 of CEMP – Communication | The local community and relevant agencies will be kept informed of construction progress and environmental performance through communication tools such as notifications, the project's mobile van and the project website as summarised in Section 1.7.2 of this TTMP and Section 7.1 of the CEMP.<br>Detailed information regarding project communication is found in the CCS. |
| | (ii) receive, handle, respond to, and record complaints; | Section 1.7.3<br>CCS | Section 1.7.3 of this TTMP summarises the complaints management system, which includes a process to manage complaints including receiving, recording, tracking and responding to complaints within a defined timeframe. The complaints management system is described in detail in the CCS. |
| | (iii) resolve any disputes that may arise; | Section 1.7.3<br>CCS<br>Section 7.2 of CEMP – Complaints management | Section 1.7.3 of this TTMP describes dispute resolution, which is described in detail in the CCS. Wherever possible, complaints will be resolved directly between SecureEnergy and the stakeholder. |
| | (iv) respond to any non-compliance; | Section 7.7<br>Section 10.1 of the CEMP – Reporting non-compliances<br>Section 11 of the CEMP – Non-compliance, non-conformance, corrective and preventative action | Section 7.7 of this TTMP outlines that where a non-compliance has been identified, corrective actions will be developed as required and implemented to address the non-conformance that occurred (as described in more detail in the CEMP).<br>Reporting of non-compliances will be undertaken as described in the CEMP. |
| | (v) respond to emergencies; and | Section 6.8<br>Section 7.7<br>Section 8.1 of the CEMP – Emergency preparedness and emergency responses | Emergency management and planning including environmental emergencies related to traffic will be undertaken in accordance with the Clough management system and relevant procedures as described in Section 6.8 and 7.7 of this TTMP.<br>Additional detail regarding emergency management is described in the CEMP. |

| Condition no. | Requirement | Where addressed | How addressed |
|---|---|---|---|
| | j) a description of the roles and environmental responsibilities, authority and accountability for all relevant employees, as well as training and awareness; and | Table 6.3<br>Section 7.1<br>Section 7.2<br>Section 4.9 of the CEMP – Roles and responsibilities | Section 7.2 identifies that SecureEnergy's organisational structure and overall roles and responsibilities are outlined in the CEMP.<br>Specific responsibilities for the implementation of mitigation measures are detailed in Section 6 of this TTMP.<br>Training and awareness for all site personnel is outlined in Section 7.1. |
| | k) a protocol for periodic review of the CEMP and associated subplans and programs. | Section 1.9<br>Section 1.10 of the CEMP – Updating the CEMP | This TTMP will be reviewed at least annually in accordance with the CEMP. |
| | The Planning Secretary may waive some of these requirements if they are unnecessary or unwarranted for particular management plans. | Noted | Noted. |
| D35 | All over-dimensional vehicles associated with the development must only travel to and from the site via the Primary Access Routes described in the EIS, as identified in the figure in Appendix 2, unless the Planning Secretary agrees otherwise.<br>*Notes:*<br>*The Proponent is required to obtain relevant permits under the Heavy Vehicle National Law (NSW) for the use of over-dimensional vehicles on the road network.* | Section 5.1<br>Table 6.3 - TT26 | All over-dimensional vehicles associated with the development will only travel via the primary access routes described in the EIS, unless the Planning Secretary agrees otherwise.<br>Figure 5.1 outlines the primary access routes for oversize vehicle movements for Stage 2. |
| D36 | All heavy and light vehicles associated with the development:<br>a) must travel to and from the site via the Primary Access Route described in the EIS, as identified in the figure in Appendix 2; and | Section 5.1<br>Table 6.3 - TT27 | All heavy and light vehicles associated with the development will travel to and from the site via the Primary Access Routes described in the EIS, as identified in Appendix 2 of the Infrastructure Approval.<br>Figure 5.1 identifies the primary access routes and water supply routes to be used for Stage 2 construction activities, which will be utilised by heavy and light vehicles. |
| | b) may travel to and from the site via the Secondary Access Routes and Water Supply Routes, subject to the requirements in conditions D37 and D38, to the satisfaction of the relevant roads authority, unless the Planning Secretary agrees otherwise. | Section 5.1<br>Table 6.3 - TT27 | All heavy and light vehicles associated with the development will travel to and from the site via the Secondary Access Route and Water Supply Routes described in the EIS, as identified in Appendix 2 of the Infrastructure Approval.<br>Figure 5.1 identifies the primary access routes, secondary access routes and water supply routes to be used for Stage 2 construction activities, which will be accessed by both heavy and light vehicles.<br>Figure 5.2 to Figure 5.5 identifies the water supply routes that will be utilised for Stage 2. |

| Condition no. | Requirement | Where addressed | How addressed |
|---|---|---|---|
| D37 | Prior to commencing construction, the Proponent must prepare a Traffic Strategy, in consultation with the relevant roads authority, to the satisfaction of the Planning Secretary, which:<br>a) for all access routes:<br>• identifies the location and type of any necessary road upgrades (including roads, intersections, crossing points and access points), including consideration of relevant amenity impacts;<br>• ensures that any road upgrades comply with the Austroads Guide to Road Design (as amended by TfNSW supplements), unless the relevant roads authority agrees otherwise;<br>• includes a detailed assessment of potential impacts of any necessary road upgrades (such as heritage and biodiversity impacts), including consideration of appropriate mitigation measures;<br>• identifies whether intersections, crossing points and access points would be permanent or temporary; and<br>• includes measures for notifying, seeking feedback from and addressing the concerns of impacted residents along the routes;<br>b) for Secondary Access Routes and Water Supply Routes:<br>• provides detailed usage of the routes, including maximum daily numbers of heavy and light vehicles and approximate durations of use;<br>• includes an assessment of dust impacts to any residences along the routes and identifies mitigation measures to minimise any impacts; and<br>• identifies any residences along the routes that would experience road traffic noise above the relevant assessment criteria from Table 3 in NSW Road Noise Policy (DECCW, 2011) due to project-related traffic and identifies mitigation measures to minimise impacts. | Traffic Strategy | The Traffic Strategy has been prepared to identify all the proposed access routes and water supply routes and the necessary road upgrades for the construction of Stage 2. |
| D38 | Prior to commencing construction, the proponent must implement the road upgrades and the mitigation measures identified in the Traffic Strategy in condition D37, to the satisfaction of the relevant roads authority and the Planning Secretary, respectively. | Traffic Strategy | The Traffic Strategy outlines that the road upgrades and mitigation measures identified will be implemented prior to construction (unless otherwise permitted in accordance with condition E2), to the satisfaction of the relevant roads authority and the Planning Secretary. |

| Condition no. | Requirement | Where addressed | How addressed |
|---|---|---|---|
| D39 | The Proponent must:<br>a) undertake an independent dilapidation survey to assess the:<br>• existing condition of all local roads on the transport route (including local road crossings) prior to construction, upgrading or decommissioning works; and<br>• condition of all local roads on the transport route (including local road crossings):<br>– within 1 month of the completion of any construction, upgrading or decommissioning works;<br>– on an annual basis during construction works;<br>– rehabilitate and/or make good any development-related damage<br>b) repair all local roads on the transport route (including local road crossings), if dilapidation surveys identify that the road has been damaged during construction, upgrading or decommissioning works; in consultation with the relevant roads authority, to the satisfaction of the Planning Secretary. | Section 6.1<br>Table 6.3 - TT3 and TT4 | Dilapidation surveys will be undertaken in accordance with this condition and as outlined in Section 6.1.<br>If the dilapidation surveys identify that a local road (or local road crossing) has been damaged during construction, upgrading or decommissioning works, the identified damage will be repaired. |
| D40 | The Traffic and Transport CEMP Sub-Plan required under condition B2 must include: | | |
| | a) details of the transport route to be used for all development-related traffic; | Section 5 | Section 5 describes the construction haulage routes for heavy and light vehicles, as well as oversize vehicle movements. |
| | b) details of the road upgrade works required by condition D38 of this approval; | Section 6.2<br>Traffic Strategy | Section 6.2 outlines the road upgrade works required for Stage 2 works.<br>The project does not propose to construct any new roads or intersections for Stage 2. The Traffic Strategy provides further details on the road upgrades, potential impacts from these road upgrades and consideration of appropriate mitigation measures. |
| | c) details of the measures that would be implemented to: | | |
| | • minimise traffic safety impacts of the development and disruptions to local road users during construction, upgrading or decommissioning works, including: | Section 6 | Section 6 outlines management measures to be implemented during construction to minimise traffic safety impacts. |
| | – a description of the proposed dilapidation surveys required by condition D39 of this approval; | Section 6.1<br>Table 6.3 - TT3 and TT4 | Section 6.1 describes the roads that will be subject to a dilapidation survey prior to construction (note only portions of the road may be surveyed) for Stage 2. |

| Condition no. | Requirement | Where addressed | How addressed |
|---|---|---|---|
| | – a description of the proposed measures for managing traffic flow around the work sites, construction compounds and accommodation camps; | Section 5.6<br>Section 5.7<br>Section 6.2.1<br>Section 6.5<br>Table 6.3 – TT2, TT6, TT24 | Section 6.2.1 and Section 6.5 outline measures to manage traffic flow around the work sites, construction compounds and accommodation camps during construction.<br>The access points listed in Section 5.6 will be completed in accordance with s138(2) of the *Roads Act 1993*, including the appropriate BAL/BAR treatment and Safe Intersection Sight Distance requirements outlined in *Austroads Guide to Road Design Part 4A*. The design will consider traffic flow into and around the work site, accommodation camps and construction compounds.<br>Type 1 access points will be installed at the accommodation camps and construction compounds. Type 1 access points widen the gazetted road to enable traffic to continue to flow whilst vehicles are entering the accommodation camps and construction compounds. This minimises impacts and disruptions to local road users. Signage will also be provided to assist in directing and addressing traffic flow.<br>The access points will be approved by the relevant road authority prior to use in accordance with condition D38.<br>Traffic Control Plans will be prepared to address all construction activities that affect traffic conditions, including those for the camp and compounds.<br>Road Occupancy Licences (ROLs) will also be obtained (as required) and complied with for any road closures (full or partial) on roads that intersect with the haulage routes prior to any such closure. |
| | – temporary traffic controls, including detours and signage; | Section 6.5<br>Table 6.3 - TT34 | Temporary traffic controls will be developed as part of the Traffic Control Plans for Stage 2 and are outlined in Section 6.5 of this TTMP. |
| | – procedures for stringing cables and transmission lines across roads; | Section 5.3<br>Table 6.3 – TT28 | Procedure for stringing cables and transmission lines across road corridors will be included within the relevant Work Method Statement (WMS) for stringing activities. |

| Condition no. | Requirement | Where addressed | How addressed |
|---|---|---|---|
| | – notifying the local community about development-related traffic impacts; | Section 1.7.2<br>CCS | Communication tools will be used by the project to inform stakeholders and the community of periodic traffic related impacts, including proposed road network changes, movement of OSOM vehicles and access impacts. |
| | – procedures for receiving and addressing complaints from the community about development-related traffic; | Section 1.7.3<br>CCS | Complaints will be managed by the Community and Stakeholder Engagement Team with the use of Consultation Manager database. |
| | – minimising potential cumulative traffic impacts with other projects in the area; | Section 6.5<br>Table 6.3 - TT32 | Traffic arrangements between major construction projects will occur in consultation with TfNSW and local councils. |
| | – minimising potential conflict between development-related traffic and rail services, stock movements and school buses, in consultation with local schools, including preventing queuing on the public road network; | Section 6.5<br>Table 6.3 - TT23 and TT33 | Scheduling, outlined in Section 6.6, will act to minimise potential for conflict with traffic and rail services, stock movements and other projects in the area.<br>Management measures for minimising conflict between development-related traffic are identified in TT23 and TT33. |
| | – implementing measures to minimise development-related traffic on the public road network outside of standard construction hours; | Section 6.6<br>Table 6.3 - TT35 | Development related traffic will be scheduled within standard hours, wherever possible.<br>If works are required outside of standard construction hours, the OOHW Protocol will be implemented (in the NVMP). |
| | – minimising dirt tracked onto the public road network from development-related traffic; | Table 6.3 - TT21 | Management measure TT21 in Table 6.3 outlines the measures in order to minimise tracking of mud from project area onto public sealed roads. |
| | – details of the employee shuttle bus service (if proposed), including pick-up and drop-off points and associated parking arrangements for construction workers, and measures to encourage employee use of this service; | Section 5.5 | Regular employee shuttle bus services will be used to transfer workers to and from the airport and accommodation camps. |
| | – encouraging car-pooling or ride sharing by employees; | Table 6.3 - TT19 | Management measure TT19 in Table 6.3 states that carpooling and other shared transport initiatives for construction workers will be encouraged throughout construction. Carpooling and other shared transport initiatives may be promoted through the implementation of tools such as toolboxes and awareness training. |

| Condition no. | Requirement | Where addressed | How addressed |
|---|---|---|---|
| | – scheduling of haulage vehicle movements to minimise convoy length or platoons; | Section 6.5<br>Table 6.3 - TT13 to TT17 | In order to limit cumulative impacts on the road network and impacts to motorists, scheduling of vehicle movements to avoid peak traffic periods and conflicts with other road users will be implemented.<br>Management measures relating to scheduling of vehicles is outlined in management measures TT13 to TT17 of Table 6.3. |
| | – responding to local climate conditions that may affect road safety such as fog, dust, wet weather and flooding; | Section 6.5<br>Appendix B<br>Table 6.3 - TT30 | Scheduling will act to minimise potential for conflict with local climate conditions such as fog, wet weather and flooding.<br>The Flood Response Plan in Appendix B outlines procedures and options for safe access to and from the site in the event of flooding. |
| | – ensuring loaded vehicles entering or leaving the site have their loads covered or contained; | Table 6.3 - TT20 | Management measure TT20 in Table 6.3 states that all trucks entering or leaving the site with loads will have their loads covered or contained. |
| | – responding to any emergency repair or maintenance requirements; | Section 6.8<br>Table 6.3 - TT18 | Emergency repair and maintenance requirements is in Section 6.8 of this TTMP.<br>Management measure TT18 in Table 6.3 outlines that broken down vehicles will be moved off the road, and hazard lights used. |
| | – provisions for maintaining emergency vehicle access at all times; | Section 6<br>Table 6.3 - TT9 | Management measure TT9 states that access to properties will be provided at all times for emergency vehicles. |
| | – a traffic management system for managing over-dimensional vehicles; and | Section 6.4 | Section 6.4 of this TTMP describes the measures to be implemented for managing over-dimensional vehicles, including Vehicle Movement Plans (VMP). |
| | – fatigue management | Section 6.9<br>Appendix A | The Drivers Code of Conduct (DCC) in Appendix A describes driver's obligations including the management of fatigue. Appendix A also provides additional requirements for heavy vehicles or over dimension vehicles. |
| | • comply with the traffic conditions in this approval; | Section 7 | Section 7 of this TTMP describes compliance management related to traffic impacts for Stage 2, to ensure compliance with the traffic conditions in this approval. |
| | d) include a drivers code of conduct that addresses: | | |
| | • travelling speeds; | Section 6.9<br>Appendix A | The DCC in Appendix A describes driver's obligations including obeying the speed limits. |

| Condition no. | Requirement | Where addressed | How addressed |
|---|---|---|---|
| | • procedures to ensure that drivers to and from the development adhere to the designated over-dimensional and heavy vehicle routes; | Section 6.9<br>Appendix A | The DCC in Appendix A describes the additional requirements for heavy vehicles or over dimension vehicles. |
| | • procedures to ensure that drivers to and from the development implement safe driving practices; and | Section 6.9<br>Appendix A | The DCC in Appendix A describes all site personnel (including sub-contractors) will undertake an induction which will include details relating to the DCC. |
| | • include a detailed program to monitor and report on the effectiveness of these measures and the code of conduct; and | Section 6.9<br>Section 6.11<br>Appendix A | The effectiveness of the management measures identified in this DCC will be monitored and reported through daily and weekly visual inspections.<br>In Vehicle Monitoring System (IVMS) will be utilised on the project. |
| | e) a flood response plan detailing procedures and options for safe access to and from the site in the event of flooding. | Section 6.13<br>Appendix B | A Flood Response Plan describing the procedures and options for safe access to and from the Buronga substation in the event of flooding, has been prepared and is included as Appendix B of this TTMP. |

## 2.3 Revised mitigation measures

The revised mitigation measures (RMMs) are defined in Appendix G of the Response to DPIE Request for Information. The RMMs relevant to traffic and transport are presented in Table 2.2 below.

A cross reference is also included to indicate where the measure is addressed within this plan or other project management documents. The management measures that will be implemented for the project are provided in Section 6 of this TTMP.

**Table 2.2 - Revised mitigation measures relevant to traffic and transport**

| Reference | Revised mitigation measures | Location | Where addressed | How addressed |
|---|---|---|---|---|
| TA1 | Site access/egress points will be designed to minimise conflicts with vehicle movements on the road network and in accordance with relevant safety requirements. This may include the provision of acceleration and deceleration lanes at accommodation camp locations. Any designs will be in accordance with the Austroads Guide to Road Design and Austroads Guide to Traffic Management, Traffic Control at Worksites and approved by the relevant road authority. | All roads that intersect with the transmission line corridor or are on haulage routes | Section 5.6<br>Section 5.7<br>Section 6.3<br>Traffic Strategy | The site access points for Stage 2 are identified in Section 5.6 and Section 5.7.<br>Design for site access points will be completed in accordance with s138(2) of the *Roads Act 1993*, including the BAL/BAR treatment and the Safe Interaction Sight Distance requirements as outlined in *Austroads Guide to Road Design Part 4A*.<br>SecureEnergy will obtain certification from the road designer that the road design drawings comply with the relevant standards. |
| TA2 | Road pre-condition will be carried out for the public road network in the vicinity of access points to construction compounds, construction camps and construction areas, and for roads for which proposal-related traffic within the Wentworth Shire LGA will be the main source of traffic prior to the use of the roads by proposal-related heavy vehicles. The pre-condition surveys will be undertaken in consultation with relevant councils and road owners. This will include identification of existing conditions and mechanisms to repair damage to the road network caused by construction vehicles associated with the proposal.<br>Construction haulage access routes will be subject to regular inspections, at a frequency to be determined in consultation with the relevant roads authority, to monitor the condition of these roads. Any identified issues attributable to project-related use will be rectified to maintain road safety. | All roads that intersect with the transmission line corridor or are on haulage routes | Section 6.1<br>Section 7.4 | Independent dilapidation surveys will be undertaken in accordance with condition D39. The dilapidation surveys will be undertaken in consultation with relevant councils and road owners, as outlined in Section 6.1.<br>Section 7.4 of this TTMP describes that weekly inspections will be performed by the Environmental Advisor and documented in a weekly environmental checklist. |

| Reference | Revised mitigation measures | Location | Where addressed | How addressed |
|---|---|---|---|---|
| TA3 | The community will be notified in advance of proposed road network changes through appropriate forms of communication. | All locations | Section 1.7.2<br>Table 6.3 - TT5 | Communication tools will be used by the project to inform stakeholders and the community of periodic traffic related impacts, including proposed road network changes, movement of OSOM vehicles and access impacts. |
| TA4 | Road Occupancy Licence(s) will be sought (as required) for any road closures (full or partial) prior to any such closure. The timing of any closures will be carried out to minimise impacts to the road network in accordance with the conditions of the licence. | All roads that intersect with the transmission line corridor or are on haulage routes | Section 2.4.1<br>Table 6.3 - TT6 | An ROL will be obtained from the relevant road authorities for construction activities that are likely to impact on the operational efficiency of the road network (classified and unclassified roads). This includes activities impacting a traffic lane or lanes or off-road activities which affect traffic flow. |
| TA5 | Permits from the National Heavy Vehicle Regulator (NHVR) will be obtained where required to provide oversized and overmass vehicles access during construction.<br>Permit applications will be supported by a Vehicle Movement Plan (VMP), prepared to indicate the proposed heavy vehicle route(s). The Vehicle Movement Plan would consider activities of adjoining land uses and safety of the public, particularly when entering urban areas from rural highways. | All roads that intersect with the transmission line corridor or are on haulage routes | Section 2.4.2<br>Section 6.4.2<br>Table 6.3 - TT7 | If vehicles exceed the dimension or mass limits contained in a Class 1 Notice or Ministerial Order, an access permit from the NHVR will be required to operate on the NSW road network.<br>Permits from the NHVR will be obtained, where required, to provide oversized and overmass vehicles access during construction. Permit applications will be supported by a VMP. |
| TA7 | Adjustments to haulage routes in response to road closures by Wentworth Shire Council (e.g. during wet weather conditions or during other maintenance or other upgrade activities) will be identified in consultation with Wentworth Shire Council and affected residents, and suitable management measures identified and implemented. | Local roads within the study area | Section 6.6<br>Table 6.3 - TT8 | Management measure TT8 outlines that haulage routes will be adjusted in response to road closures by Wentworth Shire Council, and where required will be identified in consultation with the council and affected residents. |
| TA8 | Access to properties for emergency vehicles will be provided at all times. | All locations | Section 6.3<br>Table 6.3 - TT9 | Management measure TT9 in Table 6.3 states access to properties will be provided at all times for emergency vehicles. |

| Reference | Revised mitigation measures | Location | Where addressed | How addressed |
|---|---|---|---|---|
| TA9 | Access to properties will be maintained or alternative arrangements agreed in consultation with landholders. | All locations | Section 6.3<br>Table 6.3 - TT10 | Management measure TT10 in Table 6.3 states access to properties will be maintained or alternative arrangements will be agreed upon in consultation with landholders. |
| TA10 | Following completion of construction, condition surveys of road pavements will be carried out. Any damage as a result of construction vehicles will be repaired following the completion of construction (and as needed through the construction period to maintain safe road conditions). | All roads that intersect with the transmission line corridor or are on haulage routes | Section 6.1<br>Table 6.3 - TT4 | Independent dilapidation surveys will be undertaken in accordance with condition D39. The dilapidation surveys will be undertaken in consultation with relevant councils and road owners, as outlined in Section 6.1. |
| TA11 | Transgrid will commit to a Road Maintenance Agreement with Wentworth Shire Council to ensure appropriate remediation of roads used by project-related vehicles to address any damage and deterioration caused by the construction of the proposal. | Roads maintained by Wentworth Shire Council | Section 6.1 | Procedures to be developed in consultation with the local Council authority to facilitate a regime for the repair of damage to the existing road structure that is clearly attributable to the Contractor, incurred as part of undertaking the project works. |
| LP6 | Procedures will be implemented so that potential impacts or conflicts between livestock and construction activities are appropriately managed. Procedures will be developed in consultation with affected landholders will include management of:<br>• noise intensive activities during sensitive periods within the livestock production cycle (such as lambing and calving)<br>• vehicle movements and other activities within the vicinity of livestock<br>• movement of stock away from potential stressors created by construction activities. | Transmission line | Table 6.3 - TT23<br>NVMP | Procedures will be developed in consultation with affected landholders to include vehicle movements and other activities within the vicinity of livestock.<br>Aspects of this revised mitigation measure relating to noise intensive activities and potential stressors created by construction activities is addressed in the *Stage 2 Noise and Vibration Management Plan* (45860-HSE-PL-D-0019). |

| Reference | Revised mitigation measures | Location | Where addressed | How addressed |
|---|---|---|---|---|
| HF2 | Detailed construction planning will consider flood risk at construction areas. This will include identification of measures that will be implemented to not worsen flood impacts downstream and on other property and infrastructure during construction up to and including the 1% AEP flood event, and review of site layout and staging of construction works to avoid or minimise obstruction of overland flow paths and to limit the extent of flow diversion required.<br>Procedures as detailed in the flood emergency management procedures will be implemented in response to flood events, including the evacuation of personnel. | Transmission lines and construction sites within flood prone land | Appendix B<br>SWMP | The Flood Response Plan in Appendix B describes flood emergency management procedures.<br>For further detail refer to the SWMP. |
| HR9 | Dangerous goods and hazardous substances will be transported in accordance with relevant legislation and codes, including the Dangerous Goods (Road and Rail Transport) Act 2008, Road and Rail Transport (Dangerous Goods) (Road) Regulation 1998 and the Australian Code for the Transport of Dangerous Goods by Road and Rail (National Transport Commission, 2007). | All locations | Section 6.9<br>Table 6.3 - TT22 | Section 6.9 and management measure TT22 outline the measures to transport dangerous good and hazardous substances. |
| CI1 | Co-ordination of traffic management arrangements between major construction projects will occur in consultation with the relevant road authorities (Transport for NSW and local councils) and/or other proponents as relevant. This will consider any potential conflicts in relation to deliveries and identified haulage routes during the program. | Silver City Highway and Arumpo Road | Section 1.7.2<br>Table 6.3 - TT32 | Section 1.7.2 and management measure TT33 outlines traffic arrangements between major construction projects will occur in consultation with TfNSW and local councils. |

## 2.4 Licences and Permits

### 2.4.1 Road Occupancy Licences

In accordance with Section 138 of the *Roads Act 1993*, a road occupancy licence (ROL) will be obtained from the relevant road authorities for construction activities that are likely to impact on the operational efficiency of the road network (classified and unclassified roads). This includes activities impacting a traffic lane or lanes or off-road activities which affect traffic flow.

Any ROL required during construction will be obtained from the relevant road authorities. Where a ROL is required, the works covered by the ROL will not commence until that ROL has been issued. The work will be carried out in compliance with the conditions of ROLs. In conjunction with an ROL, it may be necessary to reduce the speed limit of the roadway for the period of the occupancy for the safety of road users and workers. Roadwork speed zones will be established in accordance with

AS1742.3-2009 *Traffic control devices for works on roads* in consultation with the road authority(s). The speed zone authorisations will form part of the ROL application process as required by the road authority.

### 2.4.2 Oversize Overmass (OSOM) Access Permits

The National Heavy Vehicle Regulator (NHVR) administers the one set of laws and regulations under the Heavy Vehicle National Law (HVNL). NSW, Victoria and South Australia have changed their respective legislation to mirror the requirements under the HVNL. The aim of the HVNL is to:

- manage the impact of heavy vehicles on the environment, road infrastructure and public amenity;
- promote industry productivity and efficiency; and
- consolidate the current national heavy vehicle model laws and replaces corresponding state and territory legislation.

If vehicles exceed the dimension or mass limits contained in a Class 1 Notice or Ministerial Order, an access permit from the NHVR will be required to operate on the NSW road network. Oversize overmass (OSOM) vehicles are defined as Class 1 vehicles under the *Heavy Vehicle National Law*.

A vehicle or vehicle combination is considered to be OSOM if it exceeds any general access mass or dimension limits. A Transport Management Plan is required for any of the following OSOM movements:

- all OSOM movements that are classified as 'High Risk' due to their dimensions and/or weights;
- all OSOM movements that travel on a 'High Risk' route; and
- all OSOM movements that involve the transport of a 'Critical/Sensitive' load.

The Transport Management Plan will include the nominated vehicle size, weight of the OSOM load, proposed route & analysis of the required turn movements. The Transport Management Plan will be prepared to accompany the access permit application and submitted to TfNSW to obtain approval prior to these movements occurring.

## 2.5 Guidelines

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

- *Austroads Guide to Road Design*;
- *Austroads Guide to Traffic Management*;
- *Austroads Guide to Road Design Part 4A (Unsignalised & Signalised Intersections)*;
- *Traffic Control at Work Sites – Version 6*;
- Australian Standard 1742 Parts 1 to 14 *Manual of Uniform Traffic Control Devices*;
- Australian Standard 1742.3-2009 *Traffic control devices for works on roads;*
- *NSW Heavy Vehicle Access Policy Framework* (TfNSW, 2018); and
- *Transport of Dangerous Goods by Road and Rail,* Edition 7.7 (National Transport Commission, 2020).

The documents identified above are considered by the project as described and referenced throughout this TTMP.

# 3 Existing environment

The following section summarises the existing traffic and transport activities within and adjacent to Stage 2 of the project. The key reference documents include:

- Section 18 and Technical Paper 9 of the EIS;
- Section 6.11 of the Amendment Report; and
- Appendix J of the Amendment Report (Addendum Traffic, transport and access impact assessment).

## 3.1 Local, State and National Roads

The existing road network within the Wentworth Shire Local Government Area (LGA) consists of a combination of national, State, regional and local roads. The key roads within the project area for Stage 2 are detailed in Table 3.1.

**Table 3.1 - Roads used for the delivery of the project**

| Name | Description | Classification | Authority |
|---|---|---|---|
| **Primary access route** | | | |
| Silver City Highway (B79) | A 683-kilometre (km) long sealed highway with two lanes, which is a state road with the Gazetted Road Number of 22 that connect Buronga to Queensland Border.<br>It runs in an east-west alignment between Wentworth and Buronga and north-south between Wentworth and Broken Hill. It has a general speed limit of 100km per hour and 60km per hour in larger town centres such as Buronga and Dareton.<br>There are no dedicated pedestrian and cycling facilities within Wentworth Shire LGA, no pedestrian footpath or shoulder on Silver City Highway with pedestrians traversing along road verge and cyclists in traffic lanes. The speed along the highway and rural nature of the area (general lack of pedestrian destinations) results in minimal pedestrian and cycle activity. | State | TfNSW |
| Sturt Highway (A20) | A state road which is a major east-west highway that connects Buronga to Wagga Wagga, allows for passenger vehicles and heavy vehicles, is a sealed highway with one lane in each direction in a north-south alignment in Wentworth LGA. General speed limit of 100km per hour and 60km per hour in town centres. Has a dedicated cycling facility and a dedicated pedestrian footpath only on the West side on George Chaffey Bridge between Mildura and Buronga. A narrow road shoulder in both directions allows some room for cyclists but is deficient of minimum standard width, outside of town centres the speed of the traffic leads and rural nature of the area (general lack of pedestrian destinations) to minimal pedestrian and cycle activity. | State | TfNSW |
| Arumpo Road | Sealed regional road with unsealed road shoulders, connects traffic from Silver City Highway and Sturt Highway to Lake Mungo, with a speed limit of 100km per hour and one lane in each direction. | Regional | Wentworth Shire Council |
| Renmark Road | Partially sealed regional road that connects South Australian border with Silver City Highway. Sealed from Silver City Highway for around 18km with unsealed road shoulders, where the rest of the road to South Australia border is unsealed. Has a speed limit of 100km per hour with one lane in each direction. | Regional | Wentworth Shire Council |

| Name | Description | Classification | Authority |
|---|---|---|---|
| **Secondary access route** | | | |
| Anabranch Mail Road | Unsealed road, no line markings. Connects traffic from intersection with Milpara Road and extends north. | Local | Wentworth Shire Council |
| Milpara Road | Sealed road, no line markings. Connects traffic from Silver City Highway to Anabranch Mail Road. | Local | Wentworth Shire Council |
| High Darling Road | A section of the road is sealed (approximately 7km) with the remaining section unsealed, no line markings. Connects traffic from Silver City Highway and extends north. | Local | Wentworth Shire Council |
| Red Hill Road | Unsealed road, no line markings. Connects traffic from High Darling Road to Low Darling Road. | Local | Wentworth Shire Council |
| Low Darling Road | Unsealed road, no line markings. Connects traffic from intersection with Red Hill Road and extends north. | Local | Wentworth Shire Council |
| Pooncarie Road/Wentworth Street | Sealed regional road that connects the town of Wentworth to the village of Pooncarie. This road is sealed between Wentworth and Pooncarie, with a posted speed limit of 80km per hour and one lane in each direction. | Regional | Wentworth Shire Council |
| Dansons Road | Unsealed road, no line markings. Connects traffic from Sturt Highway and extends east. | Local | N/A (Private road) |
| Nulla Road | Unsealed, no line markings. Connects traffic from the transmission line alignment to Renmark Road. | Local | Wentworth Shire Council |
| Pine Camp Road | Unsealed road, no line markings. Connects traffic from the transmission line alignment to Renmark Road. | Local | Wentworth Shire Council |
| **Water supply route** | | | |
| Alcheringa Road | Sealed local road | Local | Wentworth Shire Council |
| Corbett Avenue | Sealed local road | Local | Wentworth Shire Council |
| Modica Crescent | Sealed local road | Local | Wentworth Shire Council |
| Arthur Street | Sealed road with sealed shoulders and concrete kerbs. Connects traffic from Darling Street to Beverley Street. Has a speed limit of 60km per hour with one lane in each direction. | Local | Wentworth Shire Council |
| Beverley Street | Sealed road with sealed shoulders and concrete kerbs. Connects traffic from Darling Street to Beverley Street. Has a speed limit of 60km per hour with one lane in each direction. | Local | Wentworth Shire Council |
| Sandwych Street | Sealed road with sealed shoulders and concrete kerbs. Connects traffic from Darling Street to Beverley Street. Has a speed limit of 60km per hour with one lane in each direction. | Local | Wentworth Shire Council |
| River Drive | Partially sealed road with unsealed road shoulders. Two-way road. | Local | Wentworth Shire Council |
| Fletchers Lake Road | Sealed road with unsealed shoulders. Connects traffic from Silver City Highway to Pooncarie Road. Speed limit of 80km per hour with one land in each direction. | Local | Wentworth Shire Council |
| Pomona Road | Partially sealed road that connects traffic from Wills Road to Silver City Highway. | Local | Wentworth Shire Council |

## 3.2 Existing traffic volumes

The Technical Paper 9 (Traffic and transport impact assessment) provides the traffic volume data of the key roads identified for Stage 2. The available traffic volumes for this study were received from Wentworth Shire Council and the Transport for NSW traffic volume viewer, which for most part covered the period circa 2010 to 2012.

Table 3.2 provides a summary of the existing daily traffic volumes, peak hourly traffic estimates and capacity of the existing roads used for Stage 2 works.

**Table 3.2 - Summary of existing road information**

| Road name | Daily traffic volume (vehicles per day) | Peak hourly traffic estimates | Capacity (vehicles per hour) |
|---|---|---|---|
| **State roads** | | | |
| **Silver City Highway** | | | |
| Ellerslie – between Broken Hill and Wentworth (from Broken Hill to Perry Street) | 358 | 35 | 3,600 (in both directions) |
| Within Wentworth Town Centre (from Perry Street in Wentworth to Delta Road in Wentworth) | 2,559 | 255 | 2,000 (in both directions) |
| Mourquong – between Dareton and Buronga (from Fletchers Lake Road to Corbett Avenue) | 2,228 | 222 | 3,600 (in both directions) |
| Within Buronga Town Centre (from Corbett Avenue to Sturt Highway) | 5,478 | 547 | 2,000 (in both directions) |
| **Sturt Highway** | | | |
| George Chaffey Bridge – between Mildura and Silver City Highway, Buronga | 10,593 | 1,059 | 3,600 (in both directions) |
| Within Buronga (between Silver City Highway and Knights Road in Gol Gol) | 2,730 | 273 (in eastern direction) | 500 (in eastern directions) |
| **Regional roads** | | | |
| Arumpo Road | 327 | 32 (in both directions) | 3,600 (in both directions) |
| Renmark Road | <50 | <10 | - |
| Pooncarie Road/ Wentworth Street | Light vehicles = 40<br>Heavy vehicles = 25 | Light vehicles = 4*<br>Heavy vehicles = 3* | No data available |
| **Local roads** | | | |
| Alcheringa Road | Heavy vehicles = 30 | Heavy vehicles = 3* | No data available |
| Corbett Avenue | No data available | No data available | No data available |
| Modica Crescent | No data available | No data available | No data available |
| Nulla Road | No data available | No data available | No data available |
| Pine Camp Road | No data available | No data available | No data available |
| Fletchers Lake Road | Heavy vehicles = 30 | Heavy vehicles = 3* | No data available |
| Low Darling Road | Light vehicles = 40<br>Heavy vehicles = 25 | Light vehicles = 4*<br>Heavy vehicles = 3* | No data available |
| Pomona Road | Heavy vehicles = 6 | Heavy vehicles = 1* | No data available |
| High Darling Road | Light vehicles = 40<br>Heavy vehicles = 25 | Light vehicles = 4*<br>Heavy vehicles = 3* | No data available |
| Anabranch Mail Road | Light vehicles = 60<br>Heavy vehicles = 25 | Light vehicles = 6*<br>Heavy vehicles = 3* | No data available |
| Milpara Road | Light vehicles = 60<br>Heavy vehicles = 25 | Light vehicles = 6*<br>Heavy vehicles = 3* | No data available |
| Red Hill Road | Light vehicles = 40<br>Heavy vehicles = 25 | Light vehicles = 4*<br>Heavy vehicles = 3* | No data available |

| Road name | Daily traffic volume (vehicles per day) | Peak hourly traffic estimates | Capacity (vehicles per hour) |
|---|---|---|---|
| Dansons Road | Light vehicles = 60<br>Heavy vehicles = 25 | Light vehicles = 6*<br>Heavy vehicles = 3* | No data available |
| Beverley Street | No data available | No data available | No data available |
| Arthur Street | No data available | No data available | No data available |
| Sandwych Street | No data available | No data available | No data available |
| * Peak hour traffic volumes assumed to be 10% of daily peak volumes as noted in the Response to DPIE Request for Information Appendix F Construction noise risk from secondary access routes and water supply access routes memorandum Table 2 | | | |

## 3.3 Water supply points

A series of water supply points have been identified in the EIS as suitable connection points to existing water supply pipelines. The water supply points nominated for Stage 2 are provided in Table 3.3 below.

Additional water supply points may also be identified as the detailed design stage is progressed in order to reduce distance for, and number of, vehicle movements associated with water supply. For further detail on the water supply points, refer to the *Soil and Water Management Plan (SWMP)*(45860-HSE-PL-D-0008*)* and the *Traffic Strategy* (45860-G-70108-REP-G-00001).

**Table 3.3 - Water supply points**

| Location | Description |
|---|---|
| Alcheringa Drive, Buronga | The water supply point will be located at the point of the existing Buronga re-lift pump station. The proposed works will include installation of a new standpipe and connection. The area is currently cleared and adjacent to Alcheringa Drive. |
| Modica Crescent, Buronga | Water will be filled through a metered hydrant from the water main on the side of the road. |
| Fletchers Lake Road, Dareton | The area is currently not utilised (road reserve/verge) adjacent to Fletchers Lake Road. The site does not currently provide any existing aboveground water supply infrastructure. The proposed works will include installation of a new standpipe and connection to the existing Western Murray Irrigation pipeline. |
| Beverley Street, Wentworth | The site currently includes an access road to an existing overhead fill point along Beverly Street, Wentworth. |
| 690 Pomona Road, Pomona / Oxley Drive, Pomona | The site currently includes an access road to an existing water pump out point within the property of 690 Pomona Road, Pomona.<br>No new infrastructure would be required to allow for access to this water supply point. |

## 3.4 Heavy vehicle route restriction

Due to magnitude of the works a large range of vehicle types are proposed to be used in the project, including those with restricted access and oversized and overmass (OSOM) vehicles.

The classified regional roads (Silver City Highway and Sturt Highway) and the unclassified regional roads (Renmark Road, Arumpo Road) in the project area, currently permit access by restricted access vehicles, and road trains (except for AB-triple and Type 2 A-triple). Classified roads permit access to oversized and overmass vehicles, however, unclassified regional roads require prior approval.

The majority of local roads typically only allow access of up to the largest general vehicle type (i.e. semi-trailer).

Figure 3.2 details heavy vehicle route restrictions by heavy vehicle type.

## 3.5 Public transport

Buses provide the primary public transport service in the Wentworth LGA, operated by Buslink.

The key bus corridors and routes include the Buslink routes along Sturt Highway in NSW (routes 950, 951, 953, 954, 955, 956) and Buslink routes along Silver City Highway in NSW (routes 950, 951, 955, 956). The section of Sturt Highway (including George Chaffey Bridge) between Mildura and Buronga serves all the Buslink services entering NSW, all of which originate from Mildura, with a peak of three buses per hour in each of the weekday AM and PM period direction. The frequency of the remaining services provides either no or between one to two peak services only.

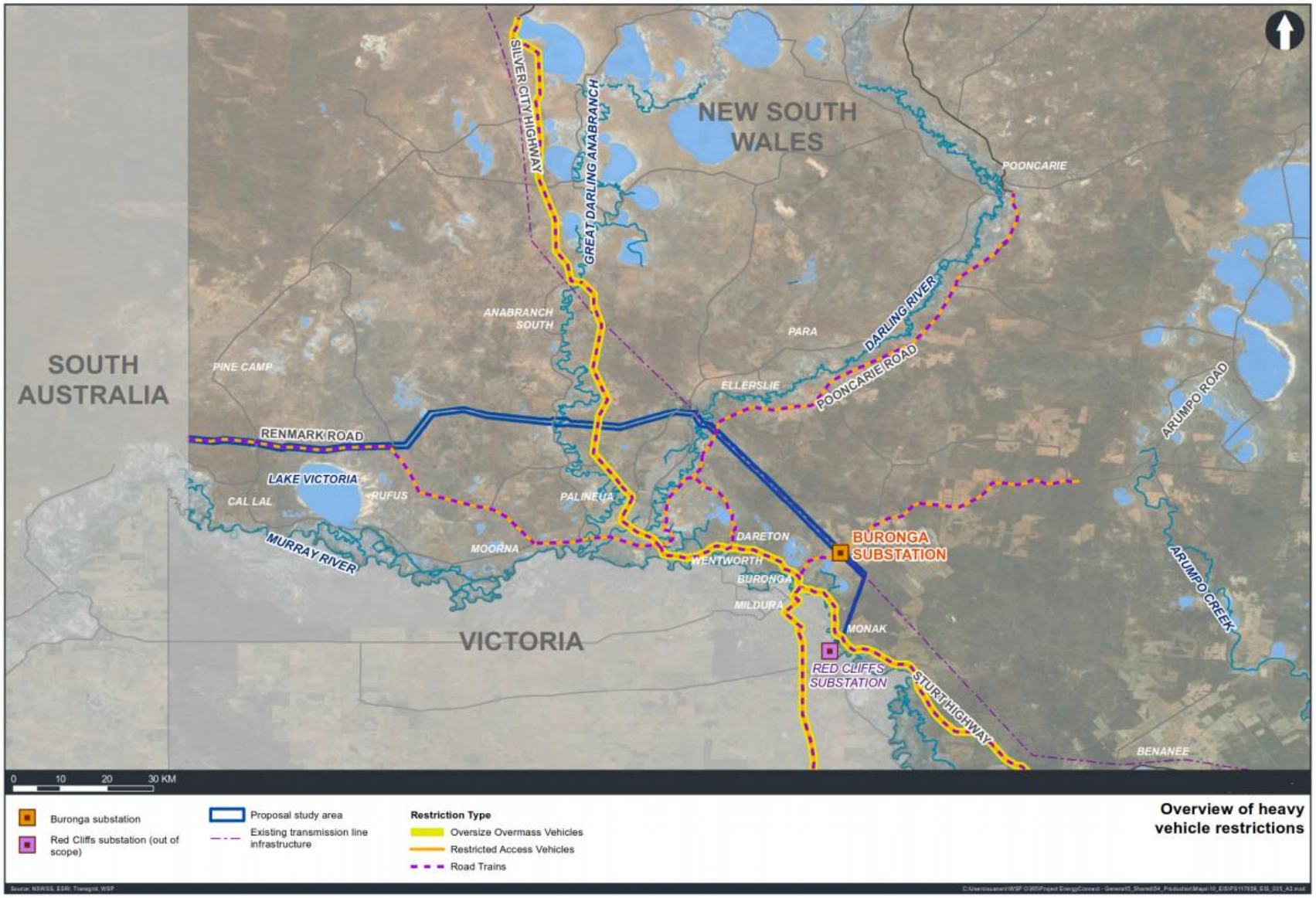


**Figure 3.2 - Overview of heavy vehicle route restrictions**

# 4 Environmental aspects and impacts

## 4.1 Construction activities

An environmental aspect is an element of an organisation's activities, products, or services that has or may have an impact on the environment (ISO 14001 Environmental management systems). The relationship of aspects and impacts is one of cause and effect.

The key aspects that could result in adverse impacts to traffic and transport include:

- increase in light vehicle movements on the primary access routes by an indicative peak of around:
  - 500 movements per day for construction of the entire construction program;
- increase of heavy vehicle movements on the primary access routes by an indicative peak of around:
  - 400 movements per day for construction of the entire construction program;
- increase in traffic on surrounding roads that are not haulage routes due to overall increase in access into the town with workers;
- transport of heavy, oversize and overmass vehicles; and
- acceleration and deceleration of heavy vehicles.

## 4.2 Impacts

Potential traffic and transport impacts attributable to Stage 2 works might include:

- increased heavy vehicle volumes and associated impacts, including road deterioration and impacts to motorists;
- short term road closures and/or traffic restrictions and delays during the transport of oversize and heavy loads; and
- short term restrictions for properties that have been consulted with.

# 5 Construction traffic and parking

## 5.1 Construction haulage routes (heavy and light vehicles)

Construction heavy vehicle movements will be required along the proposed transmission corridor, and to and from the Buronga substation and Buronga and Wentworth construction compounds and accommodation camps for a variety of activities (i.e. earthworks, clearing and grubbing activities). This will be undertaken within the proposal study area, to minimise impacts on the public road network. However, use of public roads will also be required.

All heavy and light vehicles associated with the development will travel to and from the site via the Primary Access Route described in the EIS, as identified in Appendix 2 of the Infrastructure Approval. Local haulage routes will predominantly use the Sturt Highway, Silver City Highway, Renmark Road and Arumpo Road. Given the limited number of route options, these routes will be used by both general construction traffic and for heavy vehicle haulage routes.

Figure 5.1 identifies the primary access routes, secondary access routes and water supply routes to be used for Stage 2 construction activities, which will be accessed by both heavy and light vehicles. Figure 5.2 to Figure 5.5 show the water supply routes for the proposed Stage 2 water supply points.

The anticipated construction traffic volumes (peak and typical) for primary, secondary access and water supply routes are provided in Table 3.4, Table 3.6 and Table 3.9 of the *Stage 2 Traffic Strategy* (45860-HSE-DOC-D-0008).

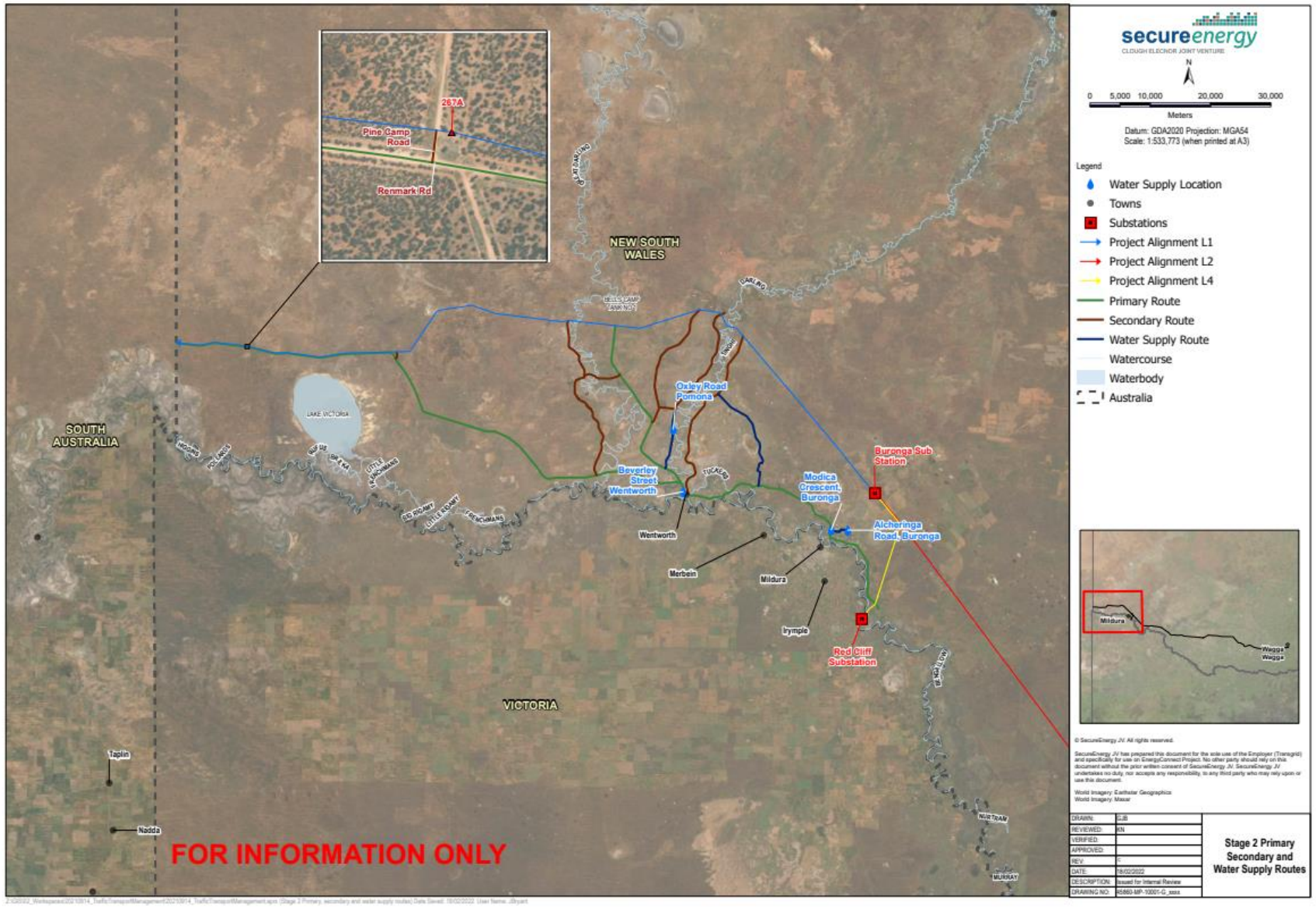


**Figure 5.1 - Primary access routes, secondary access routes and water supply routes for Stage 2**

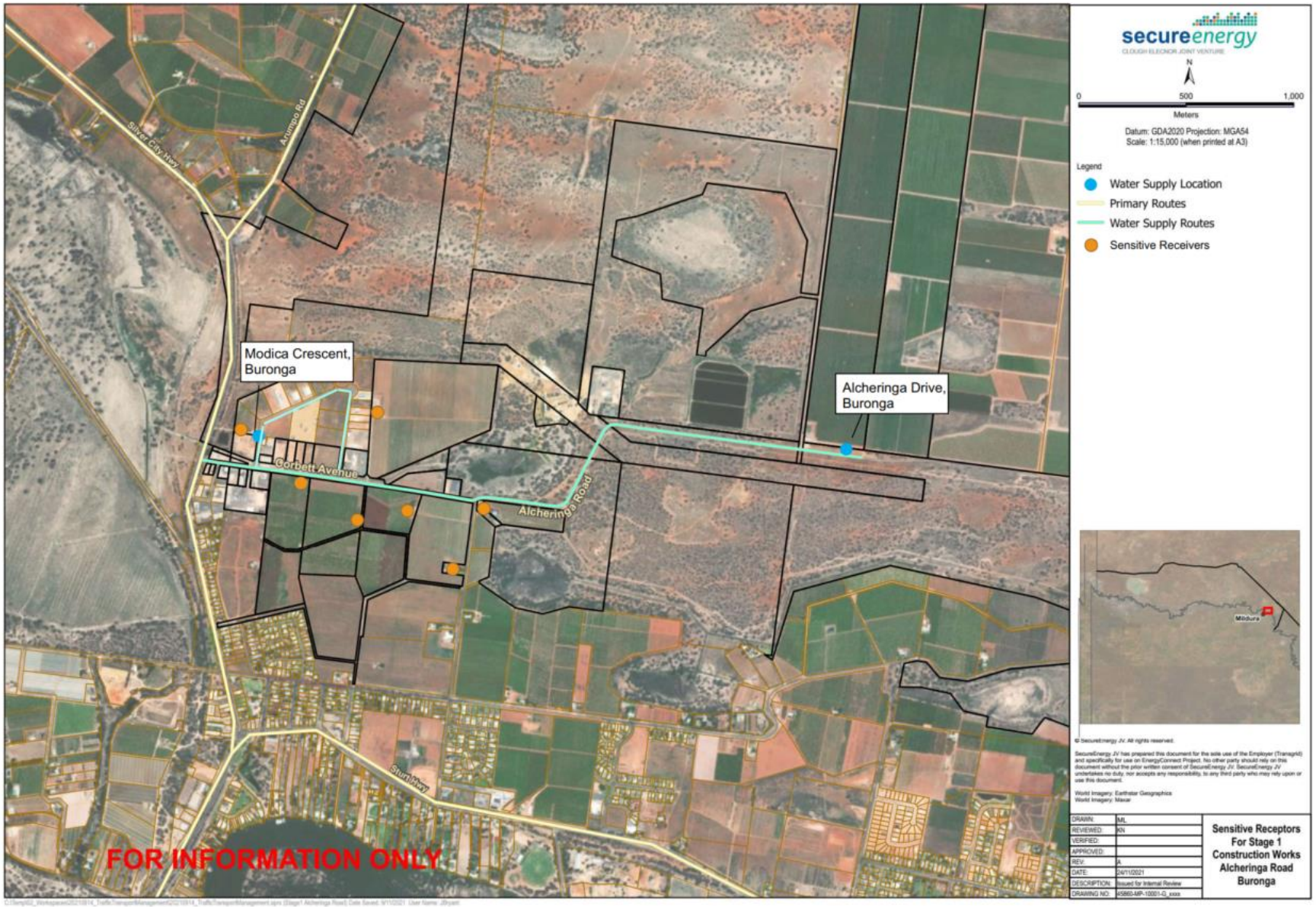


**Figure 5.2 - Alcheringa Drive and Modica Crescent water supply route**

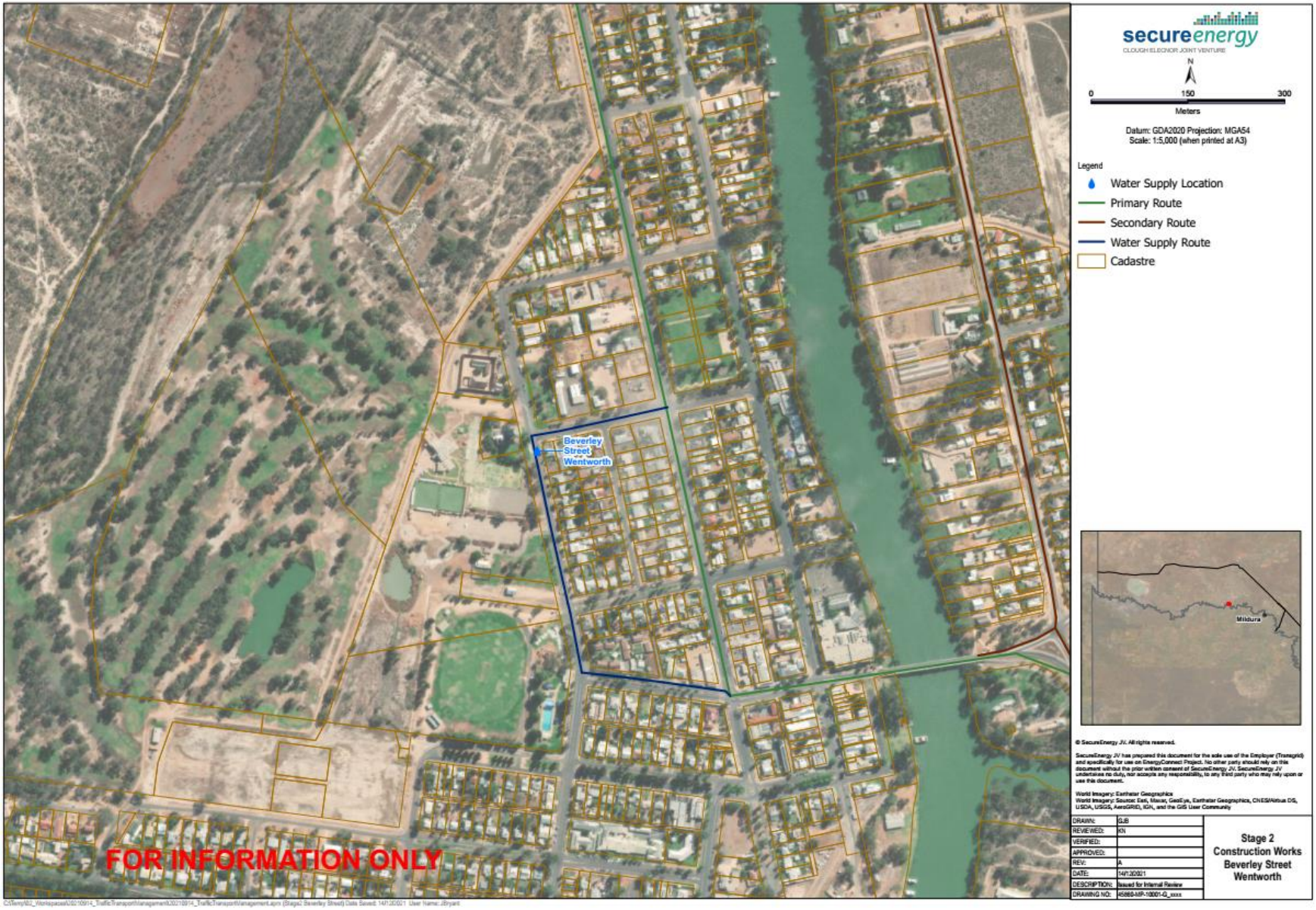


**Figure 5.3 - Beverley Street water supply route**

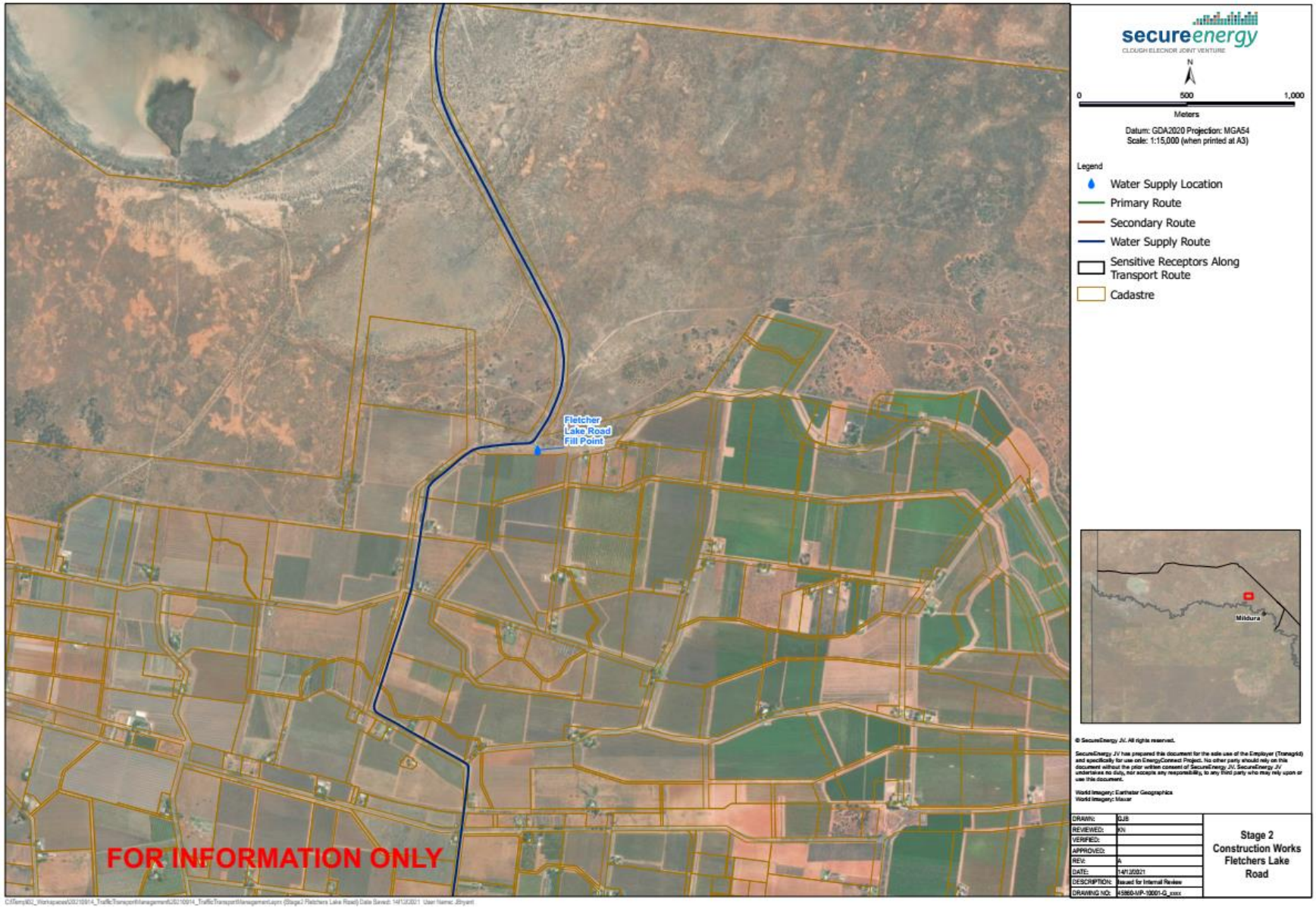


**Figure 5.4 - Fletchers Lake Road water supply route**

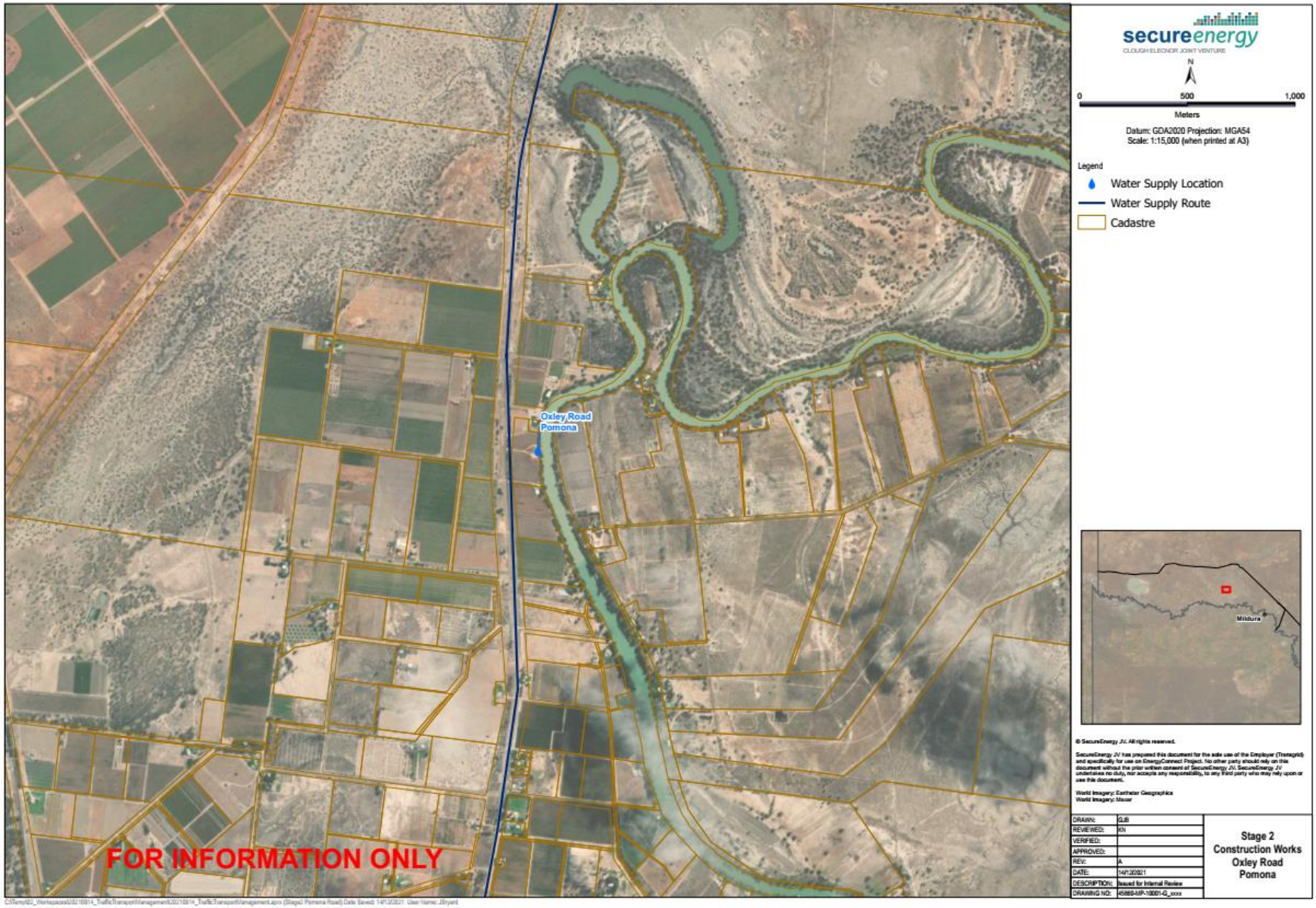


**Figure 5.5 - 690 Pomona Road, Pomona / Oxley Drive, Pomona water supply route**

## 5.2 Construction haulage routes (oversize vehicle movements)

All over-dimensional vehicles associated with the development will only travel to and from the Buronga Substation site via the Primary Access routes described in the EIS, unless the Planning Secretary agrees otherwise. Figure 5.1 identifies the primary access routes that will be utilised by oversize vehicle movements for Stage 1.

Any of the long distance haul routes will be subject to permits granted by NHVR and will be assessed accordingly.

Haulage routes from port facilities may include:

- Port Botany – travel from Sydney to Buronga via Wagga Wagga along the Hume Highway (M31) and Sturt Highway (A20), before reaching Arumpo Road to access the Buronga substation;
- Port Kembla – travel from Wollongong to Buronga via Wagga Wagga along the Hume Highway (M31) and Sturt Highway (A20), before reaching Arumpo Road to access the Buronga substation;
- Port Newcastle – travel from Newcastle to Buronga via Wagga Wagga along the Pacific Motorway (M1), Westlink M7, Hume Highway (M31) and Sturt Highway (A20), before reaching Arumpo Road to access the Buronga substation;
- Port of Adelaide – travel from Adelaide to Buronga via Broken Hill along Silver City Highway (B79), before reaching Arumpo Road to access the Buronga substation; and
- Port of Melbourne – travel from Melbourne to Buronga via Mildura along Calder Highway (A79) and Benetook Avenue (C255) on the Victorian side, before crossing the Murray River along George Chaffey Bridge on Sturt Highway (A20) and reaching Arumpo Road to access the Buronga substation.

## 5.3 Transmission line crossings

The transmission line corridor will intersect the public roads listed within Table 5.1. Where stringing is required over roads, the following will occur:

- in accordance with Section 2.4.1, ROLs will be obtained from the relevant road authorities;
- the appropriate traffic control measures will be established;
- rider poles, scaffolding or other appropriate protection will be used to ensure that the conductors remain at height.

Detail of the process intended to be used will be provided with the ROL application.

**Table 5.1 - Transmission line crossings**

| Road Name | Road authority |
|---|---|
| Pine Camp Road | Wentworth Shire Council |
| Nulla Road | Wentworth Shire Council |
| Anabranch Mail Road | Wentworth Shire Council |
| Silver City Highway (B79) | TfNSW |
| High Darling Road | Wentworth Shire Council |
| Low Darling Road | Wentworth Shire Council |
| Pooncarie Road | Wentworth Shire Council |
| Arumpo Road | TfNSW |
| Sturt Highway (A20) | TfNSW |

The transmission line corridor will also intersect the three major river systems, the Great Darling Anabranch, the Darling River (also known as the Barka by the Barkandji people) and the Murray River.

Consultation with TfNSW Maritime will be undertaken, where required, prior to the commencement of transmission line stringing activities over these watercourses. Drones will likely be used when traversing the watercourses.

## 5.4 Construction worker parking

During the construction phase, it is expected that relevant workers will typically be based within the Buronga accommodation camp and Wentworth accommodation camp and will park within the respective main construction compounds or substation area. Construction workers may travel to the site locally from the surrounding towns such as Buronga, Gol or Mildura.

## 5.5 Construction shuttle bus service

During the Stage 2 construction phase, a dedicated employee shuttle bus service will be utilised to transfer workers to and from the airport and the accommodation camp (following establishment of the accommodation camp).

Workers that require aviation transportation will be flown into Mildura Airport. Workers will be picked-up from the arrival terminal of the airport and dropped-off at the Buronga and/or Wentworth accommodation camp and vice versa. Employees will be encouraged to use the dedicated shuttle bus to travel between the project accommodation camps and the airports.

The shuttle bus routes will utilise the primary and secondary routes such as Sturt Highway, Silver City Highway, Arumpo Road and Renmark Road as much as possible. The shuttle bus may require the use of local roads such as roads to access the airport terminal.

## 5.6 Access points

New temporary access points would be established to provide connection from a gazetted road to the project access tracks. The access tracks are required to access the transmission line easement and other construction areas such as Wentworth accommodation camp. The schedule of access points required for connection from a gazetted road to the transmission line easement, or other construction areas such the Wentworth accommodation camp, is provided in Table 5.3.

In most instances, access for transmission tower construction areas would cater for low vehicle movements. The type of access point has been determined with consideration to the type of road that is being impacted (e.g. minor paved road, major road or highway or gravel road). Sealed access points would be provided where the access point connects to a sealed road.

### 5.6.1 Access point type

The project will utilise the standardised access arrangement as detailed in Table 5.2. These access points have been designed in line with the relevant standards. The type of access point has been determined with consideration to the type of road that is being impacted. The site access and egress points will be designed to minimise conflicts with vehicle movements on the road network. Temporary access will be removed following completion of construction, unless directed to remain by Transgrid or the landowner.

**Table 5.2 - Temporary intersection access point types**

| Type | Access location | Access point type | Example |
|---|---|---|---|
| 1 | Access off major road/highway | Type 1 access points are defined by coming directly off a high-speed major road or highway. |  |
| 2 | Access off minor paved road | Type 2 access types shall be used in points where a paved road is deemed to be minor. |  |
| 3 | Access off gravel road | Type 3 shall be applied to points in which the road is constructed of gravel and has table drains. |  |
| 4 | Access off gravel road with minimal temporary works required | Type 4 shall be applied to points where there is no table drain present along a gravel road or when there is limited access required to a tower. |  |

## Type 1 access points

SecureEnergy will utilise a Rural Basic Right Turn (BAR) and Rural Basic Left Turn (BAL) configurations for the following access points:

- Arumpo Road into Buronga substation (addressed in the Stage 1 TTMP and will continue to be used during Stage 2 works);
- Arumpo Road into Buronga accommodation camp and compound area (addressed in the Stage 1 TTMP and will continue to be used during Stage 2 works);
- Renmark Road into Wentworth accommodation camp and construction compound;
- Silver City Highway northbound and southbound;
- Sturt Highway eastbound and westbound.

The BAL/BAR configuration will involve localised pavement widenings to provide adequate space for motorists to pass construction vehicles turning into the site access. The use of a BAL and BAR

has been assessed utilising the *Austroads Guide to Road Design Part 4A (Unsignalised & Signalised Intersections).* Figure 5.6 outlines a BAL and BAR configuration.

The temporary access points listed above will be removed following completion of construction. The access point off Arumpo Road into Buronga Substation will be converted to a permanent access point following completion of construction.

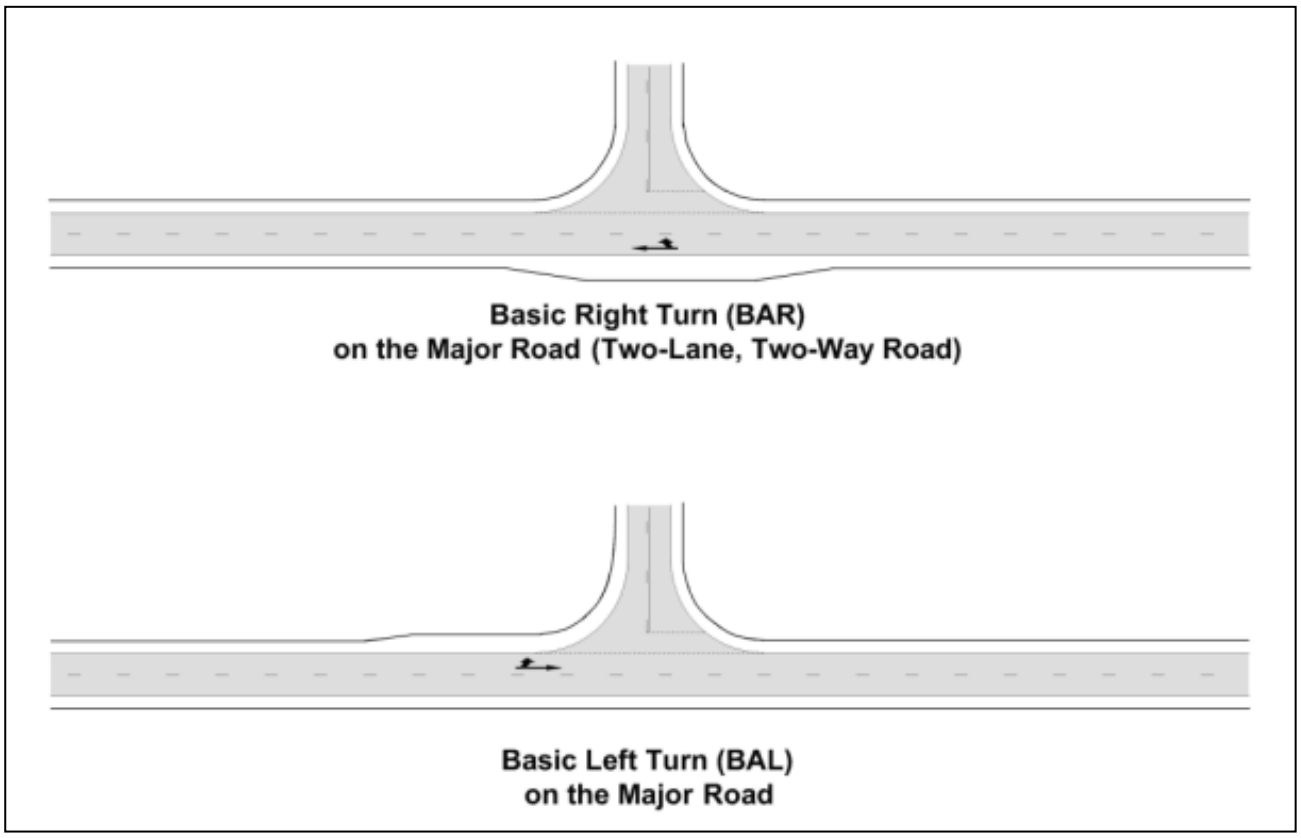


**Figure 5.6 - Rural Basic Right Turn and Rural Basic Left Turn configurations**

### Type 2, 3 and 4

The remaining access points required for access from the access road to the transmission line easement or construction area will either be a Type 2, Type 3 or Type 4 access point. These access points do not require road widening like Type 1. The difference between the access points is with the material of the access point is constructed of. A Type 2 access point is classified for a minor road, Type 3 for a gravel road and Type 4 for a minor gravel road.

## 5.6.2 Access point schedule

The schedule of access points required for connection from a gazetted road to the transmission line easement, or other construction areas such the Wentworth accommodation camp, is provided in Table 5.2.

**Table 5.3 - Access point schedule**

| Road | Proposal feature | Type of access point | Indicative number of access points |
|---|---|---|---|
| Renmark Road | Transmission towers | New access point | 81 |
| Anabranch Mail Road | Transmission towers | New access point | 3 |
| Silver City Highway | Transmission towers | Upgrade of existing access point | 2 |

| Road | Proposal feature | Type of access point | Indicative number of access points |
|---|---|---|---|
| High Darling Road | Transmission towers | Upgrade to existing access point | 2 |
| Lower Darling Road | Transmission towers | New access point | 2 |
| Wentworth Pooncarie Road | Transmission towers | Upgrade to an existing access point | 1 |
| Wentworth Pooncarie Road | Transmission towers | New access point | 1 |
| Renmark Road | Wentworth accommodation camp | New access point | 1 |
| Arumpo Road | Transmission towers | New access point | 1 |
| Dansons Road | Transmission towers | New access point | 2 |
| Sturt Highway | Transmission towers | New access point | 2 |
| Alcheringa Drive | Water supply point | New access point | 1 |
| Fletchers Lake Road | Water supply point | New access point | 2 |

## 5.7 Water supply point access

Access points are proposed at several water supply locations. Refer to Table 5.4 below. The access point will consist of gravel looped access tracks with connection to the existing road pavement to allow trucks to access the water supply point.

**Table 5.4 - Proposed access point works at water supply points**

| Water Supply Point | Proposed access point works |
|---|---|
| Alcheringa Drive, Buronga | Access point is proposed at this water supply point. The project proposes to construct a gravel looped access road that connect to the existing road pavement. |
| Modica Crescent, Buronga | No proposed access point is required for this water supply point. |
| Fletchers Lake Road, Dareton | Access point is proposed at this water supply point. The project proposes to construct a gravel looped access road that connect to the existing road pavement. |
| Beverley Street, Wentworth | No proposed access point required for this water supply point. |
| 690 Pomona Road, Pomona / Oxley Drive, Pomona | No proposed access point required for this water supply point. |

## 5.8 Crossing point

A crossing point is proposed across Nulla Road in an east west direction, as part of the access along the easement. The crossing point at Nulla Road would allow for vehicle movement from Renmark Road to Towers #213, 212 and 211.

# 6 Management measures

Management measures to be implemented during construction are described in the following section. To minimise impacts the management measures related to traffic and transport, included in Table 6.3, will be applied.

## 6.1 Dilapidation surveys

Independent dilapidation surveys will be undertaken in accordance with condition D39. The dilapidation surveys will be undertaken in consultation with relevant councils and road owners.

Dilapidation surveys will include the following areas:

- for the public road network in the vicinity of access points to the construction compounds, construction camps and construction areas; and
- for roads for which project-related traffic within the Wentworth Shire LGA will be the main source of traffic.

Dilapidation surveys will be undertaken for the portion of the road network, listed in Table 3.1, that will be used by the project during the construction phase. Dilapidation survey will be undertaken prior to construction, upgrading or decommissioning works to assess the existing conditions of all local roads on the transport route (including local road crossings).

Dilapidation surveys will be undertaken on an annual basis during construction. Also, within one month of the completion of any construction, upgrading or decommission works, a dilapidation survey will be undertaken to assess the condition of all local roads on the transport route (including local road crossings).

If the dilapidation surveys identify that a local road (or local road crossing) has been damaged during construction, upgrading or decommissioning works, the identified damage will be repaired prior to the completion of the project unless the road becomes unusable to the public and road safety is compromised by the damage. This will be undertaken in consultation with the relevant roads authority, to the satisfaction of the Planning Secretary.

In addition, a Road Maintenance Agreement will be developed in consultation with the local Council authority to facilitate a regime for the repair of damage to the existing road structure that is clearly attributable to the Project activities, incurred as part of undertaking the Project Works.

## 6.2 Road upgrades

Condition D40 b) defines road upgrades as roads, intersections, crossing points and access points. The definition of construction within the Infrastructure Approval excludes road upgrades. Road upgrade works are, however, incorporated within this TTMP as required by condition D40 b).

As per the Technical Paper 9 (Traffic and transport impact assessment), only upgrades of the access points are required to mitigate impacts to the road network entering and exiting the Stage 2 construction areas. The project does not propose to construct any new roads or intersections for Stage 2.

Stage 2 will involve access points off gazetted roads as outlined in Table 5.3 to facilitate the works required along transmission line corridor as part of Stage 2 works. Stage 2 will also involve the proposed road upgrade for the access point proposed at the Fletchers Lake Road and Alcheringa Drive water supply location. These access points will allow for the trucks to access the water supply points. The access points will consist of gravel with a sealed access.

In accordance with condition D37, the Traffic Strategy provides the specific details on the road upgrades, potential impacts from these road upgrades and consideration of appropriate mitigation measures.

### 6.2.1 Access points

Any designs for site access/egress points will be completed in accordance with the *Austroads Guide to Road Design and Austroads Guide to Traffic Management, Traffic Control at Worksites*, and approved by the relevant road authority.

The access points listed in Section 5.6 will be completed in accordance with s138(2) of the *Roads Act 1993*, including the appropriate BAL/BAR treatment and Safe Intersection Sight Distance requirements outlined in *Austroads Guide to Road Design Part 4A*. The BAL/BAR treatment will also be designed to accommodate both the through and turn movements of the nominated design vehicles (i.e. 36.5 m road train).

Access point design will consider traffic flow into and around the work site, accommodation camps and construction compounds. Type 1 access points will be installed at the accommodation camps and construction compounds as detailed in Section 5.6. Type 1 access points widen the gazetted road to enable traffic to continue to flow whilst vehicles are entering the accommodation camps and construction compounds. Signage will also be provided to assist in directing and addressing traffic flow.

The access points will be approved by the relevant road authority prior to use in accordance with condition D38.

During Stage 2 works, access to properties will be maintained or alternative arrangements agreed in consultation with landholders. Access to properties for emergency vehicles will be provided at all times.

To provide safe entry and exit to the worksite from the designated site gates the following will occur:

- monitor the number of access points in use;
- ensure the access points nominated can accommodate the turning movement of the largest vehicle that will be accessing the site as required;
- ensure all access points are clearly visible to approaching traffic and signposted accordingly; and
- ensure that vehicles will enter and exit the access gates in forward direction only. If this is not possible, traffic control will be implemented to assist.

As required, traffic control will be utilised to manage this interface. All temporary access points will be removed upon completion of works unless directed to remain by Transgrid or the landowner.

## 6.3 Access tracks

Within the EIS and Submissions Report, access tracks fell into two broad groups:

- un-improved access tracks; and
- constructed access tracks.

Unimproved access tracks will provide access to the work sites by using existing roads or tracks, or driving on existing soil or ground surface. Existing roads, tracks and other existing disturbed areas would be used in order to minimise vegetation clearing requirements with shorter sections of constructed track being provided to access specific locations.

Constructed access tracks will be required in areas where there are no existing roads or tracks, or where terrain conditions prevent continuous access along the line easement between road crossings. In these situations, ‘off easement’ access would be required, and suitable access tracks would be constructed. Typically, the proposed constructed ‘off-easement’ access tracks would be located parallel to the proposed easement.

All new access tracks would be around between six and 10 metres wide and would generally follow the natural contour of the land as far as practicable to minimise the amount of cut and fill and soil disturbance. In the case of cultivated land, it may be necessary to route access tracks along fence

lines or otherwise in accordance with landholder requirements. Track construction would be carried out so as to cause minimum disturbance to soil and vegetation both on and adjacent to the track.

Access track locations may also move throughout the construction phase as additional heritage and biodiversity surveys are completed. Access tracks will be positioned to minimise environmental impact on sensitive locations as much as practical. Areas of disturbance of access tracks would be tracked and managed in accordance with the *Biodiversity Management Plan* (45860-HSE-PL-D-0029).

During Stage 2 works, access to properties will be maintained or alternative arrangements agreed in consultation with landholders.

Access to properties for emergency vehicles will be provided at all times.

A risk-based approach has been undertaken in designing the most appropriate means of temporary access and considers:

- inclement weather, its impacts and the need for all weather access to key locations;
- access requirements for temporary works including plant and materials to be transported onto and along proposed access tracks;
- avoidance of creek and river crossings where possible;
- use of existing tracks where possible, either on or off the proposed easement; and
- distance from permanent all-weather road access, in terms of track type and required width.

Standard track types are detailed in Table 6.1 below. Each track has been allocated a track type for temporary access provision. For Stage 2 works, a combination of all access types would be required.

**Table 6.1 - Temporary access track types**

| Type | Description of works | |
|---|---|---|
| 1 | Existing track | • No work required for existing track. |
| 2 | New track | • Clearing and grubbing of topsoil only.<br>• Some matting required in isolated spots to support traffic. |
| 3 | New track | • Clearing and grubbing of topsoil only.<br>• Some matting required in isolated spots to support traffic.<br>• Strip off nominal 150mm of topsoil from the surface.<br>• Place layer of geogrid on the excavated surface.<br>• Backfill the nominal 150mm excavated material and compact. |

## 6.4 Heavy vehicle and over-dimension vehicle management

### 6.4.1 Chain of Responsibility

Heavy Vehicle National Law (HVNL) requires that every party in the heavy vehicle transport supply chain has a duty to ensure the safety of their transport activities.

The Chain of Responsibility (CoR) requirements apply to heavy vehicles, which are:

- owned or hired by SecureEnergy;
- used by subcontractors to:
  - undertake work for SecureEnergy; and
  - supply goods and materials to SecureEnergy.

Under the HVNL, a road-going vehicle that has a gross vehicle mass (GVM) of more than 4.5t must meet a number of requirements in relation to mass, dimension, loading and speed. Vehicles that have a GVM or gross combination mass (GCM) of more than 12t, or a bus with a GVM of more than

4.5 tonnes, designed to carry more than 12 people including the driver, are fatigue-regulated heavy vehicles and subject to fatigue management requirements.

A heavy vehicle is determined by its GVM rating, not the load it is carrying at the time. There are still legislative obligations regarding speed and fatigue which must be complied with when a heavy vehicle is returning to its depot without a load.

The project requires the use of heavy vehicles to transport:

- plant, equipment and materials to the project site from suppliers across NSW and potentially Victoria and South Australia; and
- waste to regional landfill(s) or to specific waste disposal sites as described in the project *Waste Management Plan* (45860-HSE-PL-D0013).

SecureEnergy recognises their role to manage and control transport of plant, equipment and materials to meet the CoR requirements.

### 6.4.2 Vehicle movement plans

Permits from the NHVR will be obtained, where required, to provide oversized and overmass vehicles access during construction. Permit applications will be supported by a Vehicle Movement Plan (VMP).

The VMP will be developed to indicate the proposed heavy vehicle routes and will be used to communicate approved heavy haulage routes and include travel directions, permitted intersection turning movements, speeds, approved parking, lay-up areas, areas off-limits to parking, types / size of trucks to be used and any traffic control required.

The VMP will consider activities of adjoining land uses and safety of the public, particularly when entering urban areas from rural highways.

The VMP will be developed for key areas of the project as required, details will include (but not limited to):

- key intersections;
- key project roads shown on Table 3.1; and
- internal project access roads.

SecureEnergy will ensure that suppliers and subcontractors are notified of the approved routes in and around the Stage 1 site prior to commencing work. Specific construction driver training to understand route constraints, expectations, safety issues, human error and its relationship with fitness for work and chain of responsibility duties, and to limit the use of compression braking is to be completed where necessary.

### 6.4.3 Heavy vehicle haulage routes

All over-dimensional vehicles associated with the development will only travel to and from the site via the Primary Access Routes described in the EIS, as identified in the figure in Appendix 2 of the Infrastructure Approval, unless the Planning Secretary agrees otherwise.

The *NSW Heavy Vehicle Access Policy Framework* (TfNSW, 2018) provides a framework for heavy vehicle access in NSW for both state and local council roads. Heavy vehicle routes to and from construction sites have been prepared with the objectives being to minimise impacts to local roads and maximise the utilisation of State and regional roads where feasible and reasonable. Where an emergency requires, non-project listed roads, including local roads may be used by light vehicles and heavy vehicles only where safe to do so and authorised by the relevant authorities.

Heavy vehicle haulage routes will be adjusted in response to road closures by Wentworth Shire Council (e.g. during wet weather conditions or during other maintenance or other upgrade activities). Where this results in the use of local roads within the project areas, these will be identified in

consultation with Wentworth Shire Council and affected residents, and suitable management measures identified and implemented.

Heavy vehicle parking, idling and queuing on public roads will be minimised where practicable particularly within the regional towns of Wentworth and Buronga.

At all times heavy vehicle drivers will be required to obey the road rules which includes covering loads when in transit to and exit from the project site.

## 6.5 Traffic Control Plans

TCPs will be developed as part of the construction planning process for all construction activities that affect traffic conditions and the safety of road users on the external or internal road network. TCPs would be prepared by appropriately qualified persons and sent to the relevant road authority for approval and be communicated to all workers prior to implementation.

Specifically for Stage 2 works, short term TCPs will be developed to facilitate the following activities:

- widening of the existing pavement at the Stage 2 access point to construct BAL and BAR treatments; and
- short term stoppages to assist vehicle movements in and out of the Stage 2 access points.

TCPs will be developed progressively during construction in accordance with the Roads and Maritime publication Traffic Control at Work Sites – Version 6 and the Australian Standard AS1742-2002 Manual of Uniform Traffic Control Devices. The TCPs will be developed in consultation with the relevant road authority(s), including TfNSW and Wentworth Shire Council.

The TCPs will establish the specific management measures to be implemented to ensure the safety of road users and to maintain efficient road network operations. They will include:

- the traffic control devices to be installed in advance of the works which may include cones, barriers, signs, traffic controllers and temporary traffic signals etc and how these are to be established;
- additional advisory signs or speed restrictions to be installed during construction;
- road occupancy requirements and approvals;
- road speed reductions required for the safety of the public and workers; and
- traffic management inspection and maintenance requirements.

Emergency services will be notified prior to the implementation of traffic changes to ensure that they are aware of the potential impacts that may affect emergency responses.

## 6.6 Scheduling

In order to limit cumulative impacts on the road network and impacts to motorists, scheduling of vehicle movements to avoid peak traffic periods and conflicts with other road users will be implemented.

Scheduling will act to:

- minimise potential for conflict with local climate conditions such as fog, wet weather and flooding;
- minimise potential conflict with schedule events through consultation with relevant stakeholders;
- minimise potential for conflict with traffic and rail services, stock movements and other projects in the area, as far as practicable; and
- minimise convoying or platoons.

Drivers are to avoid forming convoys where other road users are limited in vehicle movements by no-break in heavy vehicles. The impact of heavy vehicles from convoys and congestion through local townships during peak traffic periods are to be mitigated through the following initiatives:

- heavy vehicle parking, idling and queuing on public roads will be discouraged (except where permitted, e.g. water supply points);
- all heavy and light vehicles associated with the project will travel to and from site via the routes nominated in the Traffic and Transport Management Plan (45860-HSE-PLD0018), unless otherwise approved by the Planning Secretary; and
- minimising traffic movements by ensuring full loads.
- drivers will communicate via radio and aim to maintain distance between each heavy vehicle.

OSOM permits will be obtained from NHVR for all OSOM deliveries. The issuing authority typically take into account the scheduling and conditions of the OSOM movements to minimise cumulative impacts on the road network. Scheduling requirements from OSOM permits and associated VMP will be included in driver inductions and will be reiterated through pre-start meetings.

### 6.7 Outside of standard construction hours

Condition D1 identifies standard construction hours for the project and provides that road upgrades and construction can occur outside standard construction hours with agreement from the Planning Secretary.

If works are required out of hours (OOH), the Out of Hours Work Protocol (OOHW Protocol) will be implemented. The OOHW Protocol (required in accordance with condition D3) is provided in Appendix A of the Noise and Vibration Management Plan (45860-HSE-PL-D-0019) and identifies the process for the consideration, management and approval of works to be undertaken outside the hours defined in conditions D1, D2 and D7 of the Infrastructure Approval. Works that comply with the conditions D1, D2 and D7 are not required to be undertaken in accordance with the processes outlined in the OOHW Protocol.

### 6.8 Emergency repair/maintenance

Vehicles that have broken down will be moved off the road, provided this can be done so safely. Where vehicles require maintenance on the roadside, hazard lights will be used. The hazard will be communicated using available communication systems (i.e. radio channels) in order to warn other drivers and operators.

Before towing operations commence on haul roads, notification will be given to all haul road users through the communication system. Before earthmoving equipment is towed, a risk assessment will be conducted and control measures implemented in accordance with project safety requirements.

### 6.9 Dangerous goods

In New South Wales, the transportation of dangerous goods and hazardous substances is governed by the *Dangerous Goods (Road and Rail Transport) Act 2008*. All contractors involved in the transportation of such will be expected to adhere to the requirements of this Act *Road and Rail Transport (Dangerous Goods) (Road) Regulation 1998* and the *Australian Code for the Transport of Dangerous Goods by Road and Rail* (National Transport Commission, 2007) while travelling on both public roads and on the site.

Although RMM HR9 requires compliance with the *Australian Code for the Transport of Dangerous Goods by Road and Rail* (National Transport Commission, 2007), the Code has been more recently updated (2020).

Examples of dangerous goods and hazardous substances expected to be transported to the site include:

- pesticides and herbicides;
- fuel, oils and lubricants; and
- paints and other paint markers.

The Australian Code for the *Transport of Dangerous Goods by Road and Rail, Edition 7.5. 2020* sets out requirements for transporting dangerous goods by road and rail. The transport of hazardous and dangerous goods will be managed in accordance with the CoR requirements.

## 6.10 Drivers Code of Conduct

The safety of workers and road users is of paramount importance to SecureEnergy, and the fit and proper behaviour of drivers is directly related to establishing and maintaining a high safety standard during project delivery.

Furthermore, all drivers involved in the project must comply with the legal obligations whilst operating vehicles. To assist in achieving safe outcomes during construction, a DCC has been developed and is included in Appendix A of the TTMP. The DCC addresses the following:

- travelling speeds;
- procedures to ensure that drivers adhere to the designated over-dimensional and heavy vehicle routes;
- procedures to ensure that drivers implement safe driving practices; and
- detailed program to monitor and report on the effectiveness of these measures and the code of conduct.

Prior to working on the project, all vehicle drivers will be required to have read the DCC and acknowledge their compliance with it throughout their involvement in the project. The expectations of the DCC will also be established in the project induction and will be reiterated through pre-starts. SecureEnergy will retain copies of the signed DCCs.

The DCC includes an element of fatigue management. This includes the requirements for drivers on the project to manage their fatigue, be suitably rested and for operators of heavy vehicles to comply with the CoR legal requirements under the National Heavy Vehicle Law (*Heavy Vehicle (Adoption of National Law) Act 2013 No42).*

## 6.11 In vehicle monitoring systems

An In Vehicle Monitoring System (IVMS) will be utilised on the project as per the Employee Requirements (Health and Safety). An IVMS will be included as part of the specification for any project-specific vehicle. Mobile IVMS will be provided at the access control point for non-project specific vehicles which are using project-specific roads.

The IVMS will allow the location of vehicles on the site to be tracked remotely by authorised personnel at the security and traffic management centre. It will also allow monitoring of driver behaviour patterns.

The IVMS will record live data, including:

- vehicle location;
- speed; and
- hours spent driving.

The IVMS system will be monitored for compliance regularly. Monthly compliance reports will be provided to SecureEnergy by the IVMS supplier. Compliance is reported as part of the Monthly Progress Reports.

## 6.12 Water supply points

A number of existing water supply points will be used for the project. Their locations, typical use and estimated daily loads at peak construction period are summarised in Table 6.2.

Ongoing consultation with water suppliers may also identify other water sources that may be used for the construction of the project which would be secured under standard supply/purchase

agreement from existing facilities (no infrastructure amendments needed for them). This may include additional sources of potable water from areas such as Mildura. Should any approvals be required for additional site(s), these would be obtained as part of separate environmental approval processes.

**Table 6.2 - Location of water supply points**

| Location | Typical Use | Estimated daily loads at peak construction period |
|---|---|---|
| Alcheringa Road, Buronga | Buronga substation and surrounding area and Transmission line west of Buronga | 40 |
| Modica Crescent, Buronga | Buronga substation and surrounding area and Transmission line west of Buronga | 4 |
| Fletchers Lake Road, Dareton | Transmission line west of Buronga | 40 |
| Beverley Street, Wentworth | Wentworth and Buronga accommodation camp and construction compounds, and concrete batching plants | 4 |
| 690 Pomona Road, Pomona | Typically, transmission line west of the Darling Anabranch | 40 |

(Source: Response to DPIE Request for Information Appendix E - Traffic and transport assessment memorandum (Table 1))

## 6.13 Flood Response Plan

A *Flood Response Plan* (45860-HSE-PL-D-0010) has been prepared detailing procedures and options for safe access to and from the site in the event of flooding (refer to Appendix B).

In the event of a flood, evacuation from the sites will be via a determined safe route given by the Project Management Team (PMT). To determine the safest route, the PMT will monitor warning channels to determine the status of surrounding roads. Communication with personnel in the event of a flood will occur through two-way radio.

### Table 6.3 - Traffic and transport management measures

| ID | Measure / Requirement | When to implement | Responsibility | Source document |
|---|---|---|---|---|
| TT1 | Training will be provided to all project personnel, including relevant subcontractors on the relevant traffic management requirements from this plan through inductions, toolboxes and targeted training. | Pre-construction and construction | Environmental Manager, HSE team | Good practice |
| TT2 | Site access/egress points that intersect with the transmission line corridor or are on haulage routes will be:<br>• designed to minimise conflicts with vehicle movements on the road network;<br>• designed in accordance with relevant safety requirements;<br>• designed in accordance with the Austroads Guide to Road Design and Austroads Guide to Traffic Management, Traffic Control at Worksites; and<br>• approved by the relevant road authority.<br>The above may include the provision of acceleration and deceleration lanes at accommodation camp locations. | Detailed design | Design Manager | RMM TA1 |
| TT3 | Independent dilapidation surveys will be undertaken prior to construction, upgrading or decommissioning works to assess the existing conditions of all local roads on the transport route (including local road crossings). Following this, dilapidation surveys will be undertaken on an annual basis during construction works. | Pre-construction and construction | Project Operations Director, Environmental Manager | Condition D39<br>RMM TA2 |
| TT4 | Within one month of the completion of any construction, upgrading or decommission works, a dilapidation survey will be undertaken to assess the condition of all local roads on the transport route (including local road crossings).<br>Any damage as a result of construction vehicles will be repaired following the completion of construction. | One month of completion of construction | Project Operations Director, Environmental Manager | Condition D39<br>RMM TA10 |
| TT5 | The community will be notified in advance of proposed road network changes through appropriate forms of communication. | Construction | Engagement Manager | RMM TA3 |
| TT6 | Road Occupancy Licence(s) will be obtained (as required) for any road closures (full or partial) on roads that intersect with the transmission line corridor or are on haulage routs prior to any such closure. The timing of any closures will be carried out to minimise impacts to the road network in accordance with the conditions of the licence.<br>The conditions of the licence and the requirements of any associated Traffic Control Plans will be implemented for the relevant activities. | Construction | Project Operations Director (or delegate) | RMM TA4 |

| ID | Measure / Requirement | When to implement | Responsibility | Source document |
|---|---|---|---|---|
| TT7 | Permits will be obtained from the National Heavy Vehicle Regulator (NHVR) for the movement of oversize and overmass vehicles as required. The permit applications will be supported by a Vehicle Movement Plan (VMP), prepared to indicate the proposed heavy vehicle route(s). The VMP will consider activities of adjoining land uses and safety of the public, particularly when entering urban areas from rural highways. All oversize and overmass vehicle movements will occur in accordance with permits from NHVR and associated VMP. | Construction | Project Operations Director (or delegate) | RMM TA5 |
| TT8 | Haulage routes will be adjusted in response to road closures by Wentworth Shire Council (e.g. during wet weather conditions or during other maintenance or other upgrade activities). Where this results in the use of alternative routes and or local roads within the study areas, these will be identified in consultation with Wentworth Shire Council and affected residents, and suitable management measures identified and implemented. | Construction | Project Operations Director (or delegate) | RMM TA7 |
| TT9 | Access to properties will be provided at all times for emergency vehicles. | Construction | Supervisors | RMM TA8 |
| TT10 | Access to properties will be maintained or agree alternative arrangements will be agreed upon in consultation with landholders. | Construction | Supervisors | RMM TA9 |
| TT11 | A Road Maintenance Agreement will be developed in consultation with the local Council authority to facilitate a regime for the repair of damage to the existing road structure that is clearly attributable to SecureEnergy activities, incurred as part of undertaking the Project Works. | Construction | Engagement Manager, Environmental Manager, Project Operations Director | RMM TA11 |
| TT12 | In vehicle monitoring system (IVMS) will be required for all project specific site vehicle. Mobile IVMS will be provided at the access control point for non-project specific vehicles which are using project specific roads.<br>IVMS will record live data such as vehicle location, speed and hours spent driving. | Construction | Supervisors | SecureEnergy H&S |
| TT13 | Scheduling of vehicle movements will be undertaken to avoid peak traffic periods, and conflicts with other road users and local climate conditions. | Construction | Supervisors | Condition D40(c) |
| TT14 | Deliveries will be scheduled and staggered to prevent vehicles queuing. Deliveries will be arranged so they travel at an ordered distance allowing for a steady entry into the site without the need to queue. | Construction | Supervisors | Condition D40(c) |
| TT15 | Heavy vehicles will aim to travel staggered from one another when in transit in order to minimise delays to non-construction vehicle movements. This will be managed by scheduling of vehicle movements and staggering of the departure of trucks from SecureEnergy sites at the direction of site personnel. | Construction | Supervisors | Condition D40(c) |
| TT16 | Drivers will communicate via radio and aim to maintain distance between each heavy vehicle. | Construction | Supervisors | Condition D40(c) |
| TT17 | Scheduling requirements from OSOM permits and associated VMP will be included in driver inductions and will be reiterated through pre-start meetings. | Construction | Supervisors | Condition D40(c) |

| ID | Measure / Requirement | When to implement | Responsibility | Source document |
|---|---|---|---|---|
| TT18 | Vehicles that have broken down will be moved off the road, provided this can be done so safely. Hazard lights will be used when vehicles require maintenance on the roadside. The hazard will also be communicated using available communication methods (i.e. radio channels) in order to warn other drivers and operators. | Construction | Supervisors | Condition D40(c) |
| TT19 | Carpooling and other shared transport initiatives for construction workers will be encouraged throughout construction. | Construction | Supervisors | Condition D40(c) |
| TT20 | All trucks entering or leaving the site with loads will have their loads covered or contained. | Construction | Supervisors | Condition D40(c) |
| TT21 | In order to minimise tracking of mud from the project area onto public sealed roads, the following will be implemented:<br>• implementing progressive erosion sediment control plans (ESCP);<br>• installation of rumble grids or wheel washes where necessary;<br>• where weather warrants, inspections to monitor the condition of public sealed roads will be undertaken by the traffic team;<br>• covering of heavy vehicle loads; and<br>• where necessary public sealed roads will be maintained. | Construction | Supervisors | Condition D40(c) |
| TT22 | Dangerous goods and hazardous substances will be transported in accordance with relevant legislation and codes, including the *Dangerous Goods (Road and Rail Transport) Act 2008*, *Road and Rail Transport (Dangerous Goods) (Road) Regulation 1998* and the *Australian Code for the Transport of Dangerous Goods by Road and Rail* (National Transport Commission, 2007). | Construction | Environmental Advisor, Supervisors | RMM HR9 |
| TT23 | Procedures will be developed in consultation with affected landholders to include vehicle movements and other activities within the vicinity of livestock. | Construction | Engagement Manager, Supervisors | Condition D40(c)<br>RMM LP62<br>NVMP |
| TT24 | Traffic control plans (TCPs) will be developed for activities that impact traffic conditions and the safety of road users on the external or internal road network. TCPs will be developed in accordance with the appropriate standards and developed in consultation with relevant road authorities. | Construction | Supervisors | Condition D40(c) |
| TT25 | Emergency services will be notified prior to the implementation of traffic changes to ensure that they are aware of the potential impacts that may affect emergency responses. | Construction | Engagement Manager, Supervisors | Condition D40(c) |
| TT26 | All over-dimensional vehicles associated with the development will only travel to and from the site via the Primary Access Routes identified in Figure 5.1, unless the Planning Secretary agrees otherwise.<br>All relevant permits under the Heavy Vehicle National Law (NSW) will be obtained for the use of over-dimensional vehicles on the road network. | Construction | Supervisors | Condition D35 |

| ID | Measure / Requirement | When to implement | Responsibility | Source document |
|---|---|---|---|---|
| TT27 | All heavy and light vehicles associated with the development will travel to and from the site via Figure 5.1 unless the Planning Secretary agrees otherwise. | Construction | Supervisors | Condition D36 |
| TT28 | A procedure for stringing cables and transmission lines across road corridors will be included within the relevant Work Method Statement (WMS) for stringing activities. | Construction | Project Operations Director (or delegate) | Condition D40 |
| TT29 | The Driver's Code of Conduct within Appendix A will be implemented. | Construction | All drivers | Condition D40(d) |
| TT30 | The Flood Response Plan (Appendix B) will be implemented in the event of a flood. The Flood Response Plan details the procedures and options for safe access to and from the site in the event of flooding. | Construction | Environmental Manager, Supervisors | Condition D40(c) |
| TT31 | Project staff will be made aware of the need to report any impacts on the road network so that reactive measures can be implemented. | Construction | Environmental Manager, Supervisors | Condition D40(c) |
| TT32 | Traffic arrangements between major construction projects will occur in consultation with TfNSW and local councils. | Construction | Engagement Manager, Environmental Manager | RMM CI1 |
| TT33 | Consultation will occur will local schools if there is the potential for conflict between development related traffic and school buses. | Construction | Engagement Manager, Environmental Manager | Condition D40(c) |
| TT34 | Temporary traffic controls, including detours and signage, will be identified in the TCPs and implemented for the duration of works as stated in the TCP. | Construction | Site Supervisors | Condition D40(c) |
| TT35 | Development related traffic will be scheduled within standard hours, wherever possible. | Construction | Site Supervisors | Condition D40(c) |
| TT36 | Consultation with TfNSW Maritime Division will be undertaken, where required, prior to the commencement of transmission line stringing activities in the relevant river system to establish the appropriate management measures to minimise impacts to marine vessel. | Construction | Project Operations Director (or delegate), Environmental Manager | Consultation response from TfNSW (Letter WST21/00260/02) |

# 7 Compliance management

## 7.1 Training

All site personnel will undergo the SecureEnergy site induction training prior to the personnel participating in on-site construction activities. The induction training will address elements related to traffic management including, but not limited to:

- the environmental management system, including the CEMP;
- existence and requirements of this TTMP;
- relevant legislation;
- roles and responsibilities for traffic management;
- arrangements for transport of workers to site;
- management measures that are necessary to comply with to minimise and manage potential impacts to those features;
- fauna strike and near miss reporting;
- IVMS requirement for all site vehicles;
- driver behaviour and the DCC; and
- procedures to be implemented in the event of an incident (e.g. traffic accidents).

Targeted training in the form of toolbox talks or specific training will also be provided to personnel with a key role in traffic, transport and access management. Examples of training topics include:

- VMP including approved heavy vehicle haulage routes, safe entry and exit and other access restrictions;
- delivery driver's induction which will include safe protocols to be followed whilst travelling on internal and external roads. The briefing will reinforce posted speed limits, advisory speeds and historic high accident points on winding sections of road;
- triggers to report impacts on the road network to project management for response; and
- driver fatigue awareness training. Targeted training in the form of toolbox talks or pre-start briefs will also be provided to personnel with a key role in traffic, transport and access management.

Records of training, including attendance, will be retained by SecureEnergy.

## 7.2 Roles and responsibilities

SecureEnergy's organisational structure and overall roles and responsibilities are outlined in Section 4.9 of the CEMP – Roles and responsibilities. Specific responsibilities for the implementation of mitigation measures are detailed in Section 6 of this TTMP.

## 7.3 Monitoring

The impacts and environmental performance of the project relevant to traffic and transport, and the effectiveness of the management measures identified in Section 6 will be monitored through the proposed monitoring program in Table 7.1.

**Table 7.1 - Monitoring program**

| Parameter | Scope | Frequency | Record/type reporting | Responsibility |
|---|---|---|---|---|
| Daily inspections | Visual inspections of road conditions, safety and traffic signage | Daily | Project Operations Director (or delegate) | Site diary report |
| Weekly inspection | Inspection of the environmental controls and implementation of the traffic and transport mitigation measures outlined in Table 6.3 | Weekly | Project Operations Director (or delegate) | Weekly environmental inspection checklist |
| Weather monitoring | Inclement weather impacting project light and heavy vehicles | As required | Environmental Advisor | Communications |

## 7.4 Inspections

Weekly inspections will be performed by the Environmental Advisor and documented in a weekly environmental checklist. The inspections will check the implementation and effectiveness of the management measures identified in Section 6 and the environmental performance of the project relevant to traffic and transport. Visual inspection of the local roads, signage and road closure delineation will be undertaken.

Inspections for works covered by ROLs will be conducted to ensure all required controls outlined in the TCP are in place before occupying the identified roads.

## 7.5 Auditing

Audits will be undertaken to assess the effectiveness of the management measures and overall compliance with this plan, and other relevant approvals, licences and guidelines. Audit requirements are detailed in Section 9.3 of the CEMP - Auditing.

## 7.6 Reporting

Reporting which will be undertaken in accordance with the TTMP is summarised within Table 7.2.

**Table 7.2 - Reporting program**

| Item | Scope | Frequency | Responsibility | Recipient |
|---|---|---|---|---|
| Road Dilapidation Survey | Assess existing condition of all local roads on the transport route | Prior to construction, upgrading or decommissioning works | Traffic Manager | Transgrid<br>Relevant road authority (in consultation with the relevant road authority) |
| | Assess condition of all local roads on the transport route | Within 1 month of the completion of any construction, upgrading or decommissioning works<br>Annual basis during construction works | Traffic Manager | Transgrid<br>Relevant road authority (in consultation with the relevant road authority) |
| Weekly Environment Checklist | Visual inspection of local roads | Weekly | Environmental Manager | Transgrid |
| Audit reports | Independent audits undertaken in accordance with the Infrastructure Approval will include audits of traffic and transport measures (based on the Independent Auditor's program). Audit reports | At intervals, no greater than 26 weeks from the date of the initial Independent Audit or as otherwise agreed by the Secretary. | Environmental Manager/ Independent Auditor | Transgrid<br>DPIE |

| Item | Scope | Frequency | Responsibility | Recipient |
|---|---|---|---|---|
| | will be prepared. Further detail in relation to auditing is provided within Section 9.3 of the CEMP - Auditing. | | | |

Reporting requirements and responsibilities are documented in the Section 10 of the CEMP - Reporting.

## 7.7 Emergencies, incidents and non-compliances

### 7.7.1 Emergency

Emergency management and planning including emergencies related to traffic and transport, will be undertaken in accordance with the Clough management system and relevant procedures. Emergencies will be managed in accordance with the relevant Health, Safety, Security and Environment (HSSE) Plan as identified in Section 8.1 of the CEMP – Emergency preparedness and emergency response.

### 7.7.2 Environmental incidents

Environmental incidents, including incidents related to traffic and transport will be managed as described in Section 8.2 of the CEMP – Environmental incidents and the Incident, Notification and Investigation Procedure Flowchart provided in Appendix A4 of the CEMP.

Incident reporting is described in Section 8.3 of the CEMP – Incident notification and reporting.

### 7.7.3 Non-compliance

Where a non-compliance has been identified, including those relevant to traffic and transport, corrective actions will be developed as required and implemented to address the non-conformance that occurred as described in Section 11 of the CEMP – Non-compliance, non-conformance, corrective and preventative action. Reporting of non-compliances will be undertaken as described in Section 10.1 of the CEMP – Reporting non-compliances.

## 7.8 Contingency plan

Although the project has been assessed through the environmental impact assessment process and potential impacts identified, unpredicted impacts may occur as the project progresses. In the event that unexpected impacts are identified, the action or cause will be categorised and as required will be managed as:

- an emergency or environmental incident in accordance with Section 8 of the CEMP – Incidents and emergencies; and/or
- a non-compliance or non-conformance in accordance with Section 11 of the CEMP – Non-compliance, non-conformance, corrective and preventative action.

Reporting of the unpredicted impacts would be in line with the above processes and as described in Section 10 of the CEMP – Reporting.

Through the identification of corrective and/or preventative actions through the above processes, the following steps will be considered as relevant:

a) determine the relevant impact assessment criterion/criteria, below which the impact should be reduced, consistent with the requirements of this TTMP;

b) identify options to reduce the unexpected impacts to below the relevant criterion/criteria and appropriate timeframe for implementation;

c) implement the selected measure(s) to reduce the unexpected impacts; and

d) identify and implement an appropriate monitoring program to determine the effectiveness of the selected measure(s) to reduce the unexpected impact.

If the above monitoring program identifies that the unexpected impacts have not been reduced to below the nominated criterion/criteria, items b) to d) of the contingency process will be repeated.

# Appendix A - Drivers Code of Conduct

INTERNAL

# Driver's Code of Conduct
# EnergyConnect
## 45860-HSE-PR-G-1009

| REV | DATE | GENERAL DESCRIPTION | PREPARED | REVIEWED | VERIFIED | VERIFIED | APPROVED |
|---|---|---|---|---|---|---|---|
| D | 19/11/2021 | Issued for Transgrid review | K.Nestmann | R.Walker-Edwards | G.Crighton | JL.Barrenechea | D.Whatmough |
| E | 2/12/2021 | Addressing ER comments | K.Nestmann | R.Walker-Edwards | G.Crighton | JL.Barrenechea | D.Whatmough |
| F | 01/04/2022 | Addressing agency comments | M.Lee | R.Walker-Edwards | G.Crighton | JL.Barrenechea | D.Whatmough |

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| Revision History | |
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| **Rev.** | **Detailed Description** |
| A | Issued for internal review |
| B | Issued for Transgrid review |
| C | Updated following Transgrid review and to address the Infrastructure Approval |
| D | Revised in response to Transgrid comments |
| E | Revised in response to ER comments |
| F | Revised in response to agency comment during Stage 2 TTMP consultation period |
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| Key Document Stakeholders |
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| **To be communicated with during reviews and revisions of this document** |
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# 1 Introduction

This Driver's Code of Conduct (DCC or Code) has been prepared to address the requirements of condition D40(d) of the Infrastructure Approval (SSI 10040) granted by the Minister for Planning and Public Spaces. This Driver's Code of Conduct is part of the Traffic and Transport Management Plan (TTMP) for the delivery of EnergyConnect and forms part of the overall environmental management framework for the project.

## 1.1 Purpose and scope

The purpose of this DCC is to ensure that the impacts of construction related traffic on local roads and the local community and businesses is minimised. This DCC clearly defines acceptable driver behaviour for all vehicle drivers in connection with the project including SecureEnergy staff, suppliers and subcontractors using private and company vehicles. The DCC applies to all personnel travelling to and from the project.

The DCC will be provided in the project onboarding process for workers employed on the project.

This DCC is applicable to all drivers involved in EnergyConnect. Project staff will be required to acknowledge their obligations and accept responsibility with regards to the safe and legal operation of vehicles at all times whilst working on the project.

# 2 Induction/Training

All site personnel (including sub-contractors) will undertake an induction which will include details relating to this DCC. Training may also occur through delivery driver inductions, toolbox talks, pre-starts and targeted training as required.

# 3 Driver's obligations

All drivers are to comply with this DCC. Drivers' obligations for driving to, from or on the project are detailed below. Targeted training in the form of toolbox talks or specific training will be delivered to site personnel to ensure they understand the DCC. Specific safe driving practices outlined in this DCC will be included in the training. Failure to comply with this DCC may lead to either the issue of a warning notice or disciplinary action.

Monitoring of the safe driving practices outlined in the DCC will be conducted through daily and/or weekly inspections.

## 3.1 Over-dimensional and heavy vehicles

All drivers to and from the development will adhere to the designated over-dimensional and heavy vehicle routes.

Targeted training in the form of toolbox talks or specific training will be delivered to the site personnel. Approved over-dimensional and heavy vehicle haulage routes will be included in the training. This will be undertaken to inform site personnel of the designated over-dimensional and heavy vehicles haulage routes.

Monitoring of the over-dimensional and heavy vehicles will be conducted through daily and weekly inspections to determine if site personnel are using the dedicated haulage routes.

# 4 Monitoring and reporting

The monitoring of the effectiveness of the DCC will be completed through daily and/or weekly visual inspections. The daily inspections will be conducted through visual inspections of site personnel adhering to the measures outlined in the DCC. The weekly inspections will be documented via a weekly environmental inspection checklist. The responsibility of the monitoring of the DCC will be undertaking by the Construction Manager, Health, Safety, Security and Environment (HSSE) and/or the Project Engineer.

Regular audits of the DCC will be carried out to monitor performance of the mitigation measures outlined in the DCC. Audits will be completed by HSSE and/or Project Engineers to check compliance against the DCC including speed of trucks and compression braking.

In addition, the In-Vehicle Management System (IVMS) will be utilised for SecureEnergy's vehicles which combines the installation of an electronic device in a vehicle with purpose designed computer software to enable the driver to monitor key driving metrics. The IVMS system also provides real time feedback to the worker in the form of an alarm so that the driver can modify their driving behaviour, in a short period of time, within the parameters set by the IVMS.

# Driver's Code of Conduct
# EnergyConnect

## Drivers obligations

1) Drivers MUST at all times:
   - adhere to all of the obligations required by law;
   - hold a current and appropriate licence for the class of vehicle they are operating;
   - drive at no more than the legal speed limit including those imposed by the project;
   - ensure the vehicle is roadworthy, registered, insured and well maintained;
   - comply with all construction and road work signs and Vehicle Movement Plans (VMPs);
   - comply with all Oversize Overmass (OSOM) permits;
   - take the necessary and/or prescribed rest breaks so that operation of the vehicle is not affected by fatigue;
   - enter and leave the site with loads covered or contained and enter and leave the site in a forward direction;
   - operate the vehicle free from the effects of drugs and alcohol;
   - ensure that vehicles are operated calmly, safely and with a high degree of care and attention; and
   - operate vehicles will be operated in a manner that is suitable to the road and weather conditions including consideration for the likelihood for encountering wildlife. In the event of a fauna strike or near miss, on major project access roads, drivers are to follow details below.
2) There shall be no littering either onsite or whilst operating on the roads. Rubbish is to be disposed of in appropriate bins.
3) Drivers are to notify their employer or operator immediately should the status or conditions of their driver's licence change in any way.
4) Drivers must ensure they can be contacted at all times when on duty, either through ultra high frequency (UHF) radio or other handsfree devices. Vehicle specification requirements for UHF radio or satellite phones are found in the *Driving and Journey Management Work Instruction* (45860-HSE-WI-G-0041).
5) Drivers are to give due consideration to the public at all times. This includes:
   - behaving and driving professionally at all times;
   - deliveries are to be staggered to allow steady entry into site and to avoid queuing on public roads;
   - use horns only in an emergency or for safety reasons; and
   - responding courteously if approached by members of the public and directing them to the EnergyConnect community contact number (1800 490 666).
6) Fatigue will be managed in accordance with the *Driving and Journey Management Work Instruction* (45860-HSE-WI-G-0041).
7) Fitness to drive will be managed in accordance with *Driving and Journey Management Work Instruction* (45860-HSE-WI-G-0041).
8) Drivers are not to drive through roads affected by flood water. Refer to *Flood Response Plan* (45860-HSE-PL-D-0023).

### Fauna strike during transit

If during travel to and from the project on nominated project road or access tracks, SecureEnergy personnel or subcontractors, accidently strike fauna the following is to occur:

- where safe to do so, direct the vehicle to a slow stop in a safe location with clear visibility to other oncoming vehicles;
- if the animal is deceased, where safe to do so, and if physically possible, move the animal off to the side of the road as far away from the road edge as practical. This will prevent any further fauna strike to other animals feeding on the carcass. If it is not physically possible to move the animal (due to size, nature of impact or safety concerns), leave it in place, note the location of and report the event to the Supervisor on return to the work site or camp. The Supervisor is to report the strike to the Environment team who will record the event in the *Fauna Strike Register* (45860-HSE-REG-D-0001);
- if the animal is alive, and escapes into adjacent habitat, note the location of the impact and the report the strike to the Environment team;
- if the animal is alive but injured, first aid should be provided and the Environment team should be contacted. The animal should be taken to a Veterinarian for further assessment and treatment;
- if the animal is alive but too dangerous to assist (e.g., a raptor such as a Wedge-tailed Eagle), note the location and report the event to the Supervisor on return to the work site or camp. The supervisor is to report the strike to the Environment Team; and
- if the animal is deceased but has an orphan in the pouch, contact the Environment team who will seek advice from the project ecologist regarding the best way to remove, store and transport the orphaned fauna. If the joey's mouth is attached to the teat, do not try to detach them, but instead, if possible, take the deceased mother, or cut off the teat. Where possible and safe to do so, recover the animal, keep warm in blanket or towel and transport in an aerated box to the work site or camp. Personnel to report immediately to the supervisor who will report the strike to the Environment team who will complete the *Fauna Handling Record Sheet* (45860-HSE-FO-D-001) and manage the animal in accordance with advice from the project ecologist.

Refer to the *Fauna Handling Procedure* (45860-HSE-PR-G-1005) for further detail on the management of fauna handling.

### Additional requirements for heavy vehicles or over dimension vehicles

In addition to the general driver requirements, all heavy or over-dimension vehicle drivers are to comply with the additional requirements related to heavy vehicles.

1) Drivers MUST at all times:
   - adhere to their Chain of Responsibility requirements;
   - ensure the heavy vehicle is operated within its legal mass and dimension limits;
   - adhere to any permit to travel requirements;
   - adhere to direction of road authorities and OSOM permit; and
   - adhere to the designated over-dimensional and heavy vehicle routes.
2) Drivers are to take regular rest breaks to manage fatigue and breaks of no less than the minimum periods prescribed by the National Heavy Vehicle Regulator.
3) Convoys and congestion can have a large impact on the local community, motorists and road authority operations and are of particular concern. Drivers are to avoid forming convoys where other road users are limited in vehicle movements by no-break in heavy vehicles. Convoys will be limited during travel and avoid travel during peak periods through townships.

# Appendix B - Flood Response Plan

INTERNAL

# Flood Response Plan
# EnergyConnect (NSW - Western Section)
# Stage 2
## 45860-HSE-PL-D-0023

| REV | DATE | GENERAL DESCRIPTION | PREPARED | REVIEWED | VERIFIED | VERIFIED | APPROVED |
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| D | 4/04/2022 | Issued to ER | M.Lee | R.Walker-Edwards | G.Crighton | JL.Barrenechea | D.Whatmough |

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| A | Issued for internal review including aspects from *EnergyConnect (NSW – Western Section) Submissions Report.* |
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| C | Updated to address Infrastructure Approval |
| D | Updated following receipt of comments during consultation period and issued to the Environmental Representative |
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| Key Document Stakeholders |
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| **To be communicated with during reviews and revisions of this document** |
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# Contents



## Tables



## Figures

## Abbreviations

| Acronym | Definition |
|---|---|
| AEP | Annual exceedance probability |
| Amendment Report | *EnergyConnect (NSW – Western Section) Amendment Report* |
| AS/NZ | Australian Standard / New Zealand Standard |
| AWS | Automatic weather station |
| BoM | Bureau of Meteorology |
| CEMP | Construction Environmental Management Plan |
| CSSI | Critical State significant infrastructure |
| DAWE | Department of Agriculture, Water and the Environment |
| DPIE or Department | NSW Department of Planning, Industry and Environment |
| EIS | *EnergyConnect (NSW – Western Section) Environmental Impact Statement* |
| EP&A Act | *Environmental Planning and Assessment Act 1979* |
| EPA | NSW Environment Protection Authority |
| EPBC Act | *Environment Protection and Biodiversity Conservation Act 1999* |
| EPL | Environment Protection Licence |
| FRP, this plan | Flood Response Plan |
| NSW | New South Wales |
| NSW SES | New South Wales State Emergency Service |
| Planning Secretary | Planning Secretary under the EP&A Act, or nominee |
| PMT | Project Management Team |
| POEO Act | *Protection of the Environment Operations Act 1997* |
| project, the | EnergyConnect (NSW – Western Section) |
| RMMs | Revised mitigation measures |
| SA | South Australia |
| SAP | Sensitive area plans |
| SecureEnergy | Elecnor and Clough Projects Australia Pty Ltd have formed the SecureEnergy Joint Venture (SecureEnergy). SecureEnergy is the contractor who will be carrying out the project on behalf of Transgrid. |
| SSI | State significant infrastructure |
| Submissions Report | *EnergyConnect (NSW – Western Section) Submissions Report* |
| WM Act | *Water Management Act 2000* |
| WMS | Work method statements |

# 1 Introduction

## 1.1 Context

This Flood Response Plan (FRP or plan) forms part the *Traffic and Transport Management Plan* (45860-HSE-PL-D-0018) and the overall Construction Environmental Management Plan (CEMP) for Stage 2 of EnergyConnect (NSW - Western Section).

This plan has been prepared to address the relevant requirements of the Infrastructure Approval (SSI 10040), the *EnergyConnect (NSW – Western Section) Environmental Impact Statement* (EIS), the *EnergyConnect (NSW – Western Section) Submissions Report* (Submission Report), the *EnergyConnect (NSW – Western Section) Amendment Report* (Amendment Report) and the additional information letter dated 10 August 2021 (Response to DPIE Request for Information).

## 1.2 Purpose and objective

The purpose of this plan is to address the requirements of condition D40e) of the Infrastructure Approval, which requires the preparation of the Flood Response Plan.

The key objective of this plan is to meet the requirements of condition D40e), that is to detail the procedures and options for safe access to and from site in the event of flooding.

# 2 Environmental Requirements

## 2.1 Legislation

There are no legislative requirements relevant to this Flood Response Plan.

## 2.2 Conditions of Approval

The conditions of the Infrastructure Approval relevant to the flooding aspects are presented in Table 2.1. A cross reference is also included to indicate where the condition is addressed within this plan or other project management documents.

**Table 2.1 - Conditions of Approval relevant to flooding**

| Condition no. | Requirement | Where addressed | How addressed |
|---|---|---|---|
| D40 | The Traffic and Transport CEMP Sub-Plan required under condition B2 must include: | | |
| | c) details of the measures that would be implemented to:<br>• minimise traffic safety impacts of the development and disruptions to local road users during construction, upgrading or decommissioning works, including:<br>– responding to local climate conditions that may affect road safety such as fog, dust, wet weather and flooding; | Section 4 | Section 4 details preparation and response to minimise traffic safety impacts as a result of extreme weather or flooding. |
| | e) a flood response plan detailing procedures and options for safe access to and from the site in the event of flooding. | This plan<br>Section 4.4, Section 4.5.1 and Table 4.1 | Safe access roads have been identified in Section 4.5.1. The procedure in response to an event of flooding is summarised in Table 4.1. |

## 2.3 Revised mitigation measures

The revised mitigation measures (RMMs) are defined in Appendix G of the Response to DPIE Request for Information. The RMMs relevant to flood emergency are detailed in Table 2.2 below.

A cross reference is also included to indicate where the measure is addressed within this plan or other project management documents. The management measures that will be implemented for the project are provided in Section 5 of this plan.

**Table 2.2 - Revised mitigation measures relevant to flooding**

| Reference | Revised mitigation measures | Applicable locations | Where addressed | How addressed |
|---|---|---|---|---|
| HF2 | Detailed construction planning will consider flood risk at construction areas. This will include identification of measures that will be implemented to not worsen flood impacts downstream and on other property and infrastructure during construction up to and including the 1% AEP flood event, and review of site layout and staging of construction works to avoid or minimise obstruction of overland flow paths and to limit the extent of flow diversion required.<br>Procedures as detailed in the flood emergency management procedures will be implemented in response to flood events, including the evacuation of personnel. | Transmission line and construction sites within flood prone land | Section 4.2, Section 4.5 and Section 4.6 | In the event of a flood, the flood response procedure should be followed as summarised in Section 4.6 and detailed in Section 4. |

## 2.4 Guidelines

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

- *Wentworth Shire Flood Emergency Sub Plan* (NSW SES 2018); and
- *Wentworth Local Environment Plan 2011.*

The documents identified above are considered by the project as described and referenced throughout this FRP.

# 3 Site characteristics

This section summarises the existing environmental setting in relation to hydrology and flooding aspects within and adjacent to Stage 2. The information below is from Chapter 15 and 20 of the EIS, Technical Paper 6 (Hydrology, flooding and water quality) and Section 6.8 of the Amendment Report.

## 3.1 Topography

The topography of the project is largely flat with gentle slopes towards the existing large watercourses including the Darling River, Darling Anabranch and the Murray River. The elevation across the project area is around 35 to 80m above sea level. The elevation across Wentworth construction compound and accommodation camp is approximately 36m above sea level and the elevation across Buronga substation is approximately 52m Australian Height Datum (mAHD).

## 3.2 Climate and rainfall

Climatic data were obtained from the Bureau of Meteorology (BoM). The BoM collects data from three automatic weather stations (AWS) near the project to determine the relative long-term climate statistics. The three AWS are as follows:

- Mildura Airport AWS - located 21kms to the southwest of Buronga substation and 16km to the west of the closest transmission line;
- Lake Victoria Storage AWS - located approximately 15km to the south of the closest transmission line; and
- Wentworth Post Office AWS - located 24km to the south west of the closest transmission line. However, as most of the climatic data has not been collected at the Wentworth Post Office AWS since 1967 except for rainfall, the climate statistics data from this station were not considered in the EIS.

As the land is relatively flat surrounding the project, the climatic data at Mildura Airport AWS and Lake Victoria Storage AWS were selected in the EIS as the representative climate of the project. The climate statistics data considered in the EIS for Mildura Airport AWS is from 1946 to 2020, while Lake Victoria Storage AWS is from 1922 to 2020. Noting that the mean 3pm condition were not collected at Lake Victoria Storage AWS.

The climate data considered in the EIS for Mildura Airport AWS is from 1946 to 2020. The mean annual rainfall for Mildura Airport AWS is 285.8mm/year. Table 3.1 provides a summary of the climate statistics for Mildura Airport AWS and Table 3.2 provides a summary of the climate statistics for Lake Victoria Storage AWS.

**Table 3.1 - Summary of climate statistics for Mildura Airport AWS**

| Month | Temperature (1946 to 2020) | | Rainfall (1946 to 2020) | | Mean 9am condition (1946 to 2020) | | | Mean 3pm condition (1946 to 2020) | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Max (ºC) | Min (ºC) | Mean rainfall (mm) | Mean days of rain | Temp. (ºC) | Relative humidity (%) | Wind speed (km/h) | Temp. (ºC) | Relative humidity (%) | Wind speed (km/h) |
| Jan | 32.5 | 16.8 | 21.9 | 2.5 | 21.7 | 52 | 15.7 | 30.5 | 27 | 16.9 |
| Feb | 31.8 | 16.5 | 21.5 | 2.1 | 20.9 | 56 | 14.5 | 29.9 | 30 | 16 |
| Mar | 28.5 | 13.9 | 19.4 | 2.4 | 18.5 | 61 | 13.4 | 27.1 | 33 | 15.6 |
| Apr | 23.7 | 10.2 | 19.5 | 2.8 | 14.9 | 68 | 11.6 | 22.7 | 40 | 15.4 |
| May | 19.1 | 7.4 | 25.3 | 4.1 | 10.8 | 81 | 9.5 | 18.3 | 50 | 15.1 |
| Jun | 16 | 5.2 | 22 | 4.6 | 7.8 | 88 | 9.4 | 15.3 | 56 | 15.6 |
| Jul | 15.5 | 4.4 | 24.7 | 5.1 | 7.1 | 86 | 10.4 | 14.6 | 54 | 17.3 |
| Aug | 17.3 | 5.2 | 25.2 | 5.1 | 9.1 | 78 | 12.8 | 16.4 | 47 | 19.3 |

| Month | Temperature (1946 to 2020) | | Rainfall (1946 to 2020) | | Mean 9am condition (1946 to 2020) | | | Mean 3pm condition (1946 to 2020) | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Max (ºC) | Min (ºC) | Mean rainfall (mm) | Mean days of rain | Temp. (ºC) | Relative humidity (%) | Wind speed (km/h) | Temp. (ºC) | Relative humidity (%) | Wind speed (km/h) |
| Sep | 20.6 | 7.3 | 26.6 | 4.3 | 12.7 | 67 | 15.7 | 19.4 | 40 | 19.7 |
| Oct | 24.2 | 9.8 | 28.2 | 4.4 | 16.1 | 57 | 17.4 | 22.6 | 34 | 19.7 |
| Nov | 27.7 | 12.6 | 25.9 | 3.6 | 18.4 | 53 | 16.6 | 25.9 | 30 | 18.4 |
| Dec | 30.4 | 15 | 25.5 | 2.8 | 20.5 | 50 | 16 | 28.4 | 27 | 18.1 |
| **Annual average** | **23.9** | **10.4** | **285.8 *** | **43.8 *** | **14.9** | **67** | **13.6** | **22.6** | **39** | **17.3** |

Note: * = Annual total

**Table 3.2 - Summary of climate statistics for Lake Victoria Storage AWS**

| Month | Temperature (1922 to 2020) | | Rainfall (1922 to 2020) | | | Mean 9am condition (1922 to 2010) | |
|---|---|---|---|---|---|---|---|
| | Max (ºC) | Min (ºC) | Mean rainfall (mm) | Mean days of rain | Temp. (ºC) | Relative humidity (%) | Wind speed (km/h) |
| Jan | 32.5 | 16.8 | 21.9 | 2.5 | 21.7 | 52 | 15.7 |
| Feb | 31.8 | 16.5 | 21.5 | 2.1 | 20.9 | 56 | 14.5 |
| Mar | 28.5 | 13.9 | 19.4 | 2.4 | 18.5 | 61 | 13.4 |
| Apr | 23.7 | 10.2 | 19.5 | 2.8 | 14.9 | 68 | 11.6 |
| May | 19.1 | 7.4 | 25.3 | 4.1 | 10.8 | 81 | 9.5 |
| Jun | 16 | 5.2 | 22 | 4.6 | 7.8 | 88 | 9.4 |
| Jul | 15.5 | 4.4 | 24.7 | 5.1 | 7.1 | 86 | 10.4 |
| Aug | 17.3 | 5.2 | 25.2 | 5.1 | 9.1 | 78 | 12.8 |
| Sep | 20.6 | 7.3 | 26.6 | 4.3 | 12.7 | 67 | 15.7 |
| Oct | 24.2 | 9.8 | 28.2 | 4.4 | 16.1 | 57 | 17.4 |
| Nov | 27.7 | 12.6 | 25.9 | 3.6 | 18.4 | 53 | 16.6 |
| Dec | 30.4 | 15 | 25.5 | 2.8 | 20.5 | 50 | 16 |
| **Annual average** | **23.9** | **10.4** | **285.8 *** | **43.8 *** | **14.9** | **67** | **13.6** |

Note: * = Annual total

Technical Paper 6 (Hydrology, flooding and water quality) also obtained data from Irymple weather station (station number: 076015), located approximately 16km south of Buronga substation. Irymple weather station recorded an average annual rainfall of 271mm between 1908 and 2020. The data indicated that rainfall occurs fairly evenly across the year, with higher peak rainfall values from November to April.

## 3.3 Watercourses

There are three major river systems in the Lower Murray Darling catchment which are the Darling River, the Great Darling Anabranch and the Murray River, shown in Figure 3.2.

The Darling River starts in northern NSW and continues to where it joins with the Murray River at Wentworth. Below the Menindee Lakes, the river travels as two main channels, the lower Darling River and the Darling Anabranch. These supply a number of large lakes, some which are used as water storages, including Lake Victoria and Gol Gol Swamp. The Darling Anabranch joins the Murray River downstream of Wentworth and also has a number of overflow lakes which can hold water for

a prolonged period following a flood. Overall, the Lower Murray Darling River systems have been modified with a weir system that is highly regulated, making it difficult to return flow to pre-development conditions.

The flooding study includes the central portion of the Murray River upstream of where it meets the Darling River and Darling Anabranch, where the river is wide and has a strong and steady (maximum) flow. The river has an extensive floodplain on both sides, evidenced by billabongs and dry anabranches. The flows in the river are controlled by releases from the Hume Dam, 600km from east Mildura. The releases include four main stages, 16 weirs and five barrages (a type of diversion dam used to regulate river flows), 13 of the weirs and two of the barrages have navigational locks.

Lake Victoria is approximately three kilometres (km) beyond the transmission line corridor, located in a flat, semi-arid region of the Basin. The lake is a regulated off-river storage and its inflow is dependent on diversions from the Murray River, which in turn regulates the Murray River flow. Under natural conditions, the lake would likely only receive inflow during times of flooding along the Murray River or when there is sufficiently heavy rainfall at or close to the lake.

Buronga substation is located about two km north-east of the Gol Gol Swamp and Gol Gol Lake. These large freshwater courses are temporal systems. Gol Gol Lake is 494 hectares in size and is situated north-east of Gol Gol Swamp. Historically, the lake and swamp would have received water from the Murray River however the waterbodies are now disconnected due to a number of flow control structures that were installed in the 1950s.

Wentworth main construction compound and accommodation camp are located the northern side of Renmark Road, around 17km west of the township of Wentworth. The site is located approximately 600m north of the Murray River and about three km west of the Great Darling Anabranch.


**Figure 3.1 - Watercourses in the project area**

## 3.4 Flooding conditions and floodplain

The historical flood patterns of the project area are highly variable due to the semi-arid climate, sporadic rainfall, drought events and the topography, meaning the rivers are classified as dryland rivers.

As the average rainfall values are low and the surrounding topography has a low gradient, only small amounts of run off are generated from the catchment surrounding the project area. River flows in the lower Darling River catchment are largely from seasonal rainfall and storms in the catchment and upper catchments. Most floods in the lower Darling River system occur in winter and spring, but can also occur in autumn after summer monsoon rainfall in southern Queensland. The Darling River is highly regulated, and the average annual flow has been reduced by 40%, changing the timing of flows, with the largest volume of water now flowing in summer rather than autumn or spring.

A high-level flood risk assessment was completed by BECA in 2020 to understand the potential extent of flooding in the vicinity of the project. The estimated flood extent for the 1% Annual Exceedance Probability (AEP), shown in Figure 3.2, found that the Darling Anabranch has a flood extent of over 4km and the Darling River over 18km wide. Depths in both river channel are estimated to be up to 6m and up to 2m across the floodplains.

Flood data for the Murray River is largely historic due to much of the flow being regulated through releases from the Hume Dam. The primary flood risk for the Murray River is associated with the flooding extent, rather than the flood depth. Technical Paper 6 (Hydrology, flooding and water quality), indicated the Murray River floodplain is up to 4km in width. However, the Murray River is highly regulated, meaning flows within the river are controlled. Therefore, river flows and subsequently flooding are predominantly controlled by releases from the Hume Dam storage over 600km east of Mildura.

Locations near the Darling River, Pooncarie Road, Low Darling Road and High Darling Road are predicted to be inundated at a number of locations. At the Darling Anabranch floodplain there are a number of structures that are within the flood extent. There were no flood levees or flood control banks identified in the project area but can be assumed to be within the floodplains of the Darling River and the Darling Anabranch.

As noted in the Amendment Report, Wentworth construction compound and accommodation camp is situated within the NSW Murray and Lower Darling catchment, located about 600m north of the Murray River and about 3km west of the Great Darling Anabranch. The Wentworth facility is located within the flood prone land to the north of the Murray River as identified by the *Wentworth Local Environmental Plan 2011* (Wentworth LEP) and shown in Figure 3.3. In addition, Renmark Road, which would provide access to the site, is also mapped by the Wentworth LEP as being flood affected. The Buronga substation is located out of a floodplain.

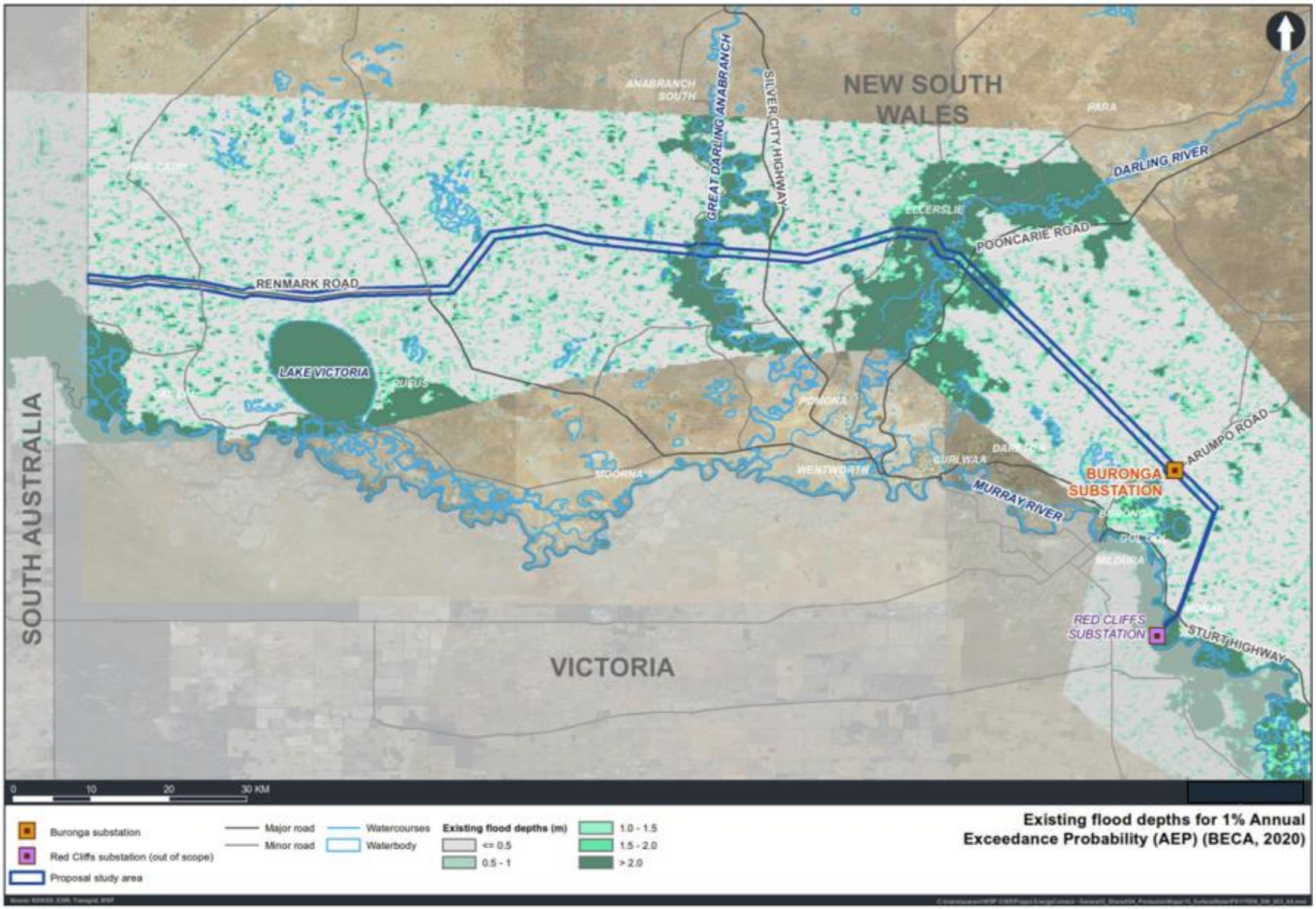


**Figure 3.2 - Existing flood depths for 1% Annual Exceedance Probability**

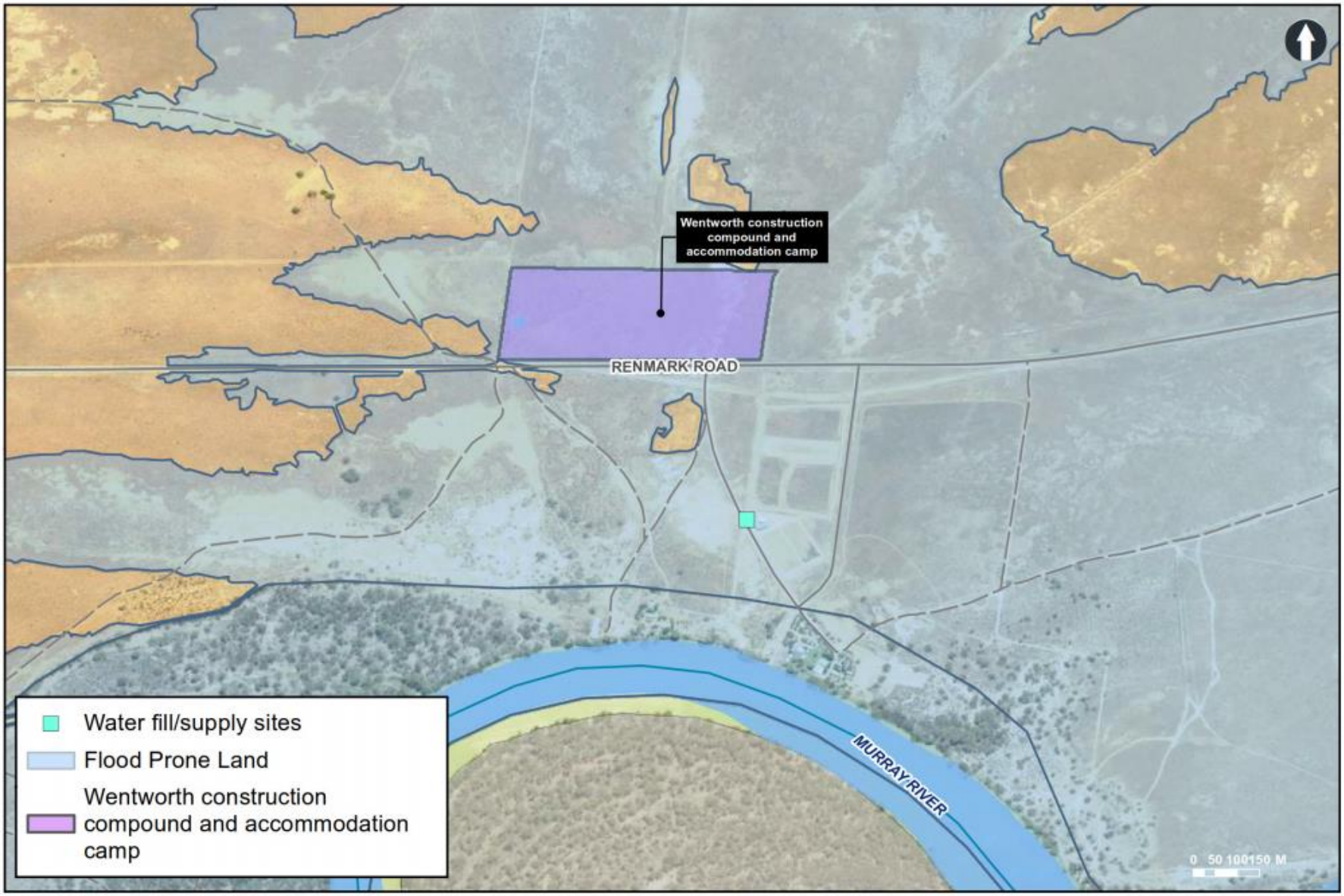


**Figure 3.3 - Flood prone land for Wentworth construction compound and accommodation camp**

# 4 Flood preparation and response

Response encompasses actions to reduce the threat to life, property and the environment following the onset of an emergency. This includes mobilisation prior to on-set of the flood.

In the event of a flood, it has been determined that the Wentworth construction compound and accommodation camp is at risk of being flood affected, along with areas within proximity of the Great Darling Anabranch and the Darling River. As a result, the Pooncarie Road, Low Darling Road and High Darling Road, are to be avoided during times of flood as these roads are within the 1% AEP flood area of the Darling River. Work occurring within this area in the event of an extreme weather event will be evacuated and the roads are to be avoided during the following response.

The following is a prepared response in case of extreme and severe weather events.

## 4.1 Extreme weather monitoring

Local conditions and weather will be monitored and interpreted onsite via the BoM Warning Centre website (http://www.bom.gov.au/australia/flood/).

In the lead up to severe or extreme weather events (as defined by BoM), there may also be warnings of a flood or storms through:

- media reports;
- NSW State Emergency Services (SES) total flood warning systems;
- NSW SES Wentworth Shire Local Headquarters operation staff;
- the Murray Darling Basin Authority (for information in relation to the Hume Dam);
- NSW SES Dam failure alerts; and
- WaterNSW's early warning network.

Monitoring of information via these channels will be used to inform the appropriate planning for work tasks to be undertaken for the day, including consideration of potential flooding to various work zones and access to and from site.

SecureEnergy engineering staff and site supervisors that are responsible for ordering items that require over-sized overmass (OSOM) will notify the haulage contractors when there are road closures on the haulage route due to flooding.

Heavy vehicles that are in the vicinity of the project will follow the direction provided by the Site Supervisors regarding which access route should be used in the event there are local road closures due to flooding. Refer to Section 4.5.1 for further information on the evacuation routes.

Where a weather event is expected to be a localised inundation event (storm), pre-rainfall inspections would be undertaken as required by the *Soil and Water Management Plan* (45860-HSE-PL-D-0021).

## 4.2 Site preparation

All construction areas will be inspected and prepared in accordance with the *Health and Safety Management Plan* (45860-HSE-PL-D-1004), which is relevant to the on-site emergency response. The Flood Incident Guideline provided in Appendix A will be completed.

## 4.3 Flood response

If a flood event is forecast, site personnel requirements will be reviewed.

Personnel on site will follow instructions at their work site and/or accommodation where a roll-call will be completed. Communication with personnel in the event of a flood will occur through two-way radio.

All personnel will be directed to seek shelter at the Buronga accommodation camp and construction compound or their nominated off-site accommodation (where safe to do so), at the appropriate times staged as below:

- non-essential personnel including support personnel shall return to flood refuge (accommodation location), via a determined safe route as described in Section 4.4;
- semi-essential personnel may be required to remain on site to assist with flood preparedness. This may include the work teams, engineers, and anyone deemed useful by the superintendent to carry out preparedness duties; and
- skeleton crew will involve essential personnel to carry out final preparedness, including supervisors, riggers and welders and anyone deemed appropriate.

No attempt should be made to enter or cross any flood waters that is above a minor flood level, or where the flood inundation level is not known.

Should a life-threatening situation arise in a flood event, emergency services will be contacted (000) immediately. Based on an assessment of the likely length of disruption to site activities, site personnel remaining may be directed to vacate the site if it is safe to do so.

## 4.4 Action and alarm

The following actions and alarm levels are proposed in the event of severe or extreme weather:

### Category 1: Site preparation

- when 80mm (or greater) of rainfall is forecast over a 24-hour period (or less). Site preparation in accordance with Section 4.2 of this plan will occur and will include the completion of the Flood Incident Guideline (refer to Appendix A).

### Category 2: Alarm

- Project Management Team (PMT) will determine when to raise a Category 2 Alarm. The Site Supervisor and relevant members of the PMT are to monitor weather and river conditions for potential warning signs of flood events and overland flows. It should be noted that severe rainfall events occurring in areas beyond the project boundary can flow into the rivers systems that are part of the project's catchment area. Following the assessment, if a flood event is imminent, the appropriate evacuation procedures will be initiated and followed. Further details relating to evacuation are provided in Section 4.5 of this plan.

## 4.5 Evacuation

Weather monitoring and monitoring of media would provide ample identification of potential flooding risk and would allow safe and orderly evacuation of site personnel as required. The site would be closed and remain closed for the duration of the flood event except in an emergency or as directed by emergency service providers.

If required, an area within the Buronga substation, construction compound and accommodation camp may be nominated by PMT as the muster point, in the event that personnel are required to stop work and muster. This is because Buronga substation, construction compound and accommodation camp are not at risk of flooding.

### 4.5.1 Site access and egress

In the event of a flood, evacuation will be via a determined safe route given by the PMT. If a skeleton crew is required to stay on site a safe route will be ensured for access and egress between accommodation and the worksite. To determine the safest route, the PMT will monitor warning channels to determine the status of surrounding roads.

The safest route will always be used in the event of a flood. Relevant personnel within the PMT (such as the HSSE Manager and/or Construction Manager) will monitor road closure conditions, with

direction provided to site personnel (Site Supervisors). Site Supervisors will provide direction to personnel regarding which access route should be used, via two-way radio.

If works are **north of the Murray River to Arumpo Road**, then the workforce is to move either along the Sturt Highway and Arumpo Road (provided the road is indicated as being open) or along the transmission line easement towards Arumpo Road until reaching Buronga accommodation camp and construction compound or their nominated off-site accommodation.

If works are occurring **north of Arumpo Road and east of the Darling River**, then the workforce is to move either along Pooncarrie Road (provided the road is indicated as being open) or along the transmission line easement towards Arumpo Road until reaching Buronga accommodation camp and construction compound or their nominated off-site accommodation.

If works are occurring **between the Darling River and the Great Darling Anabranch**, then the workforce is to move along the Silver City Highway, High Darling Road or Low Darling Road (provided the road/s are indicated as being open) to reach either the Buronga accommodation camp and construction compound or their nominated off-site accommodation. The preferred access and egress route in this location would be the Silver City Highway.

If works are occurring **west of the Great Darling Anabranch**, then the workforce is to move along Renmark Road or Anabranch Mail Road (provided the road/s are indicated as being open), then use Silver City Highway to reach either the Buronga accommodation camp and construction compound or their nominated off-site accommodation.

Roads for access and egress are shown in Figure 4.1.

Further **information on road closures** can be obtained from:

- Wentworth Shire Council;
- Barrier Police District;
- Transport for NSW - for information on road closures due to flood, Transport for NSW can be contacted on 132 701 or visit the Live Traffic NSW website. The Live Traffic App can also be used to provide information on mobile devices; and
- NSW SES Murray Region Headquarters.

Contact details are also provided within Appendix B.

Access back to the site, once deemed safe, will be assessed as per Section 5.1.

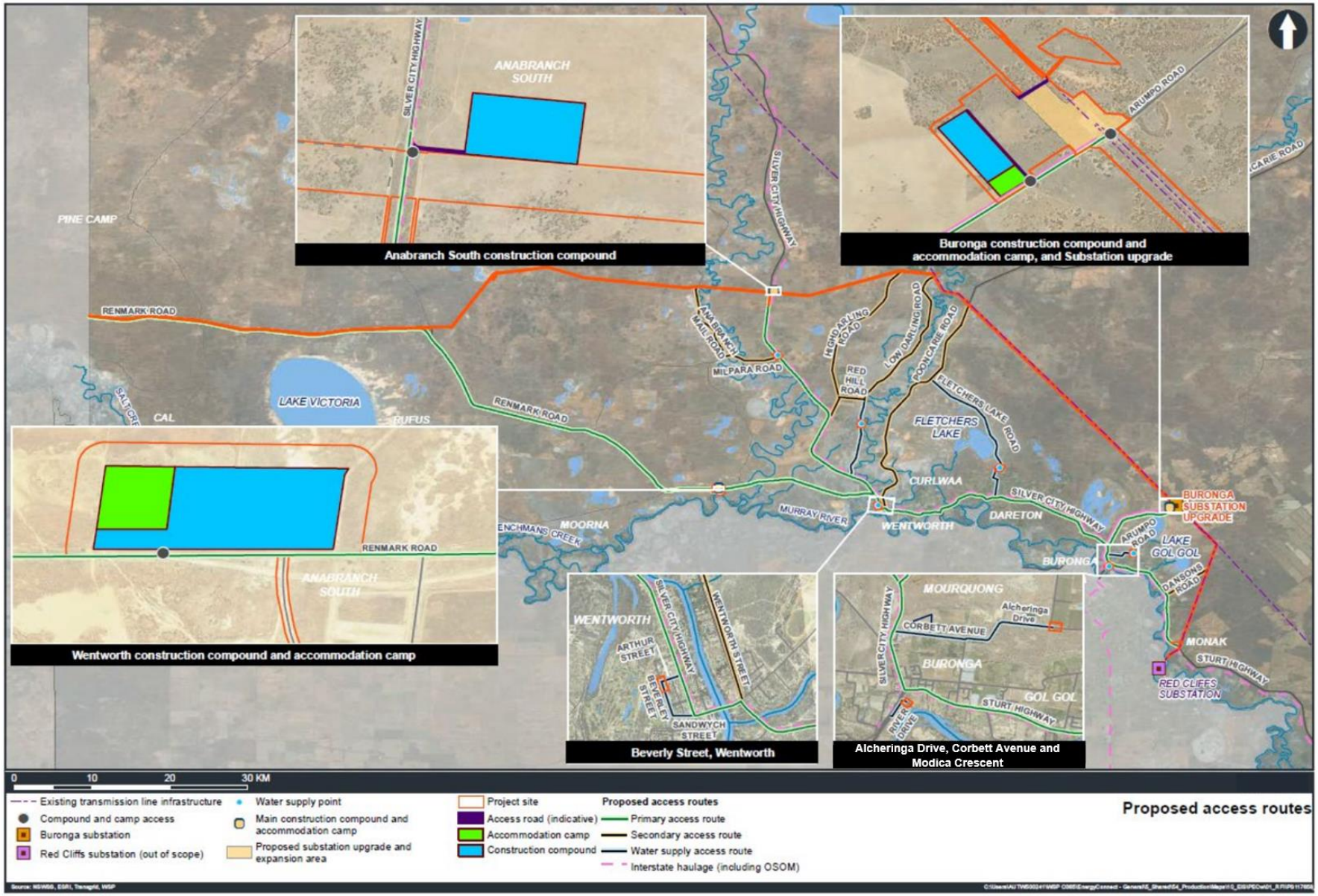


**Figure 4.1 - Access routes on the project**

## 4.6 Flood response procedure summary

The flood response procedure to be undertaken in the event of extreme weather or flooding is summarised in Table 4.1.

**Table 4.1 - Summary of flood response procedure**

| Response Item | Action | Procedure | Responsibility | Timeframe |
|---|---|---|---|---|
| Monitor | Daily weather monitoring | Monitor BoM website, SES flood information and media coverage on a daily basis | Environmental Manager<br>Site Supervisor | Daily |
| BoM warning for flooding or flash flooding | Increase level of alert | Monitor BoM website<br>Notify all Site Supervisors of warning<br>Complete actions within Section 4.2 - Site preparation and Section 4.3 - Personnel | Environmental Manager | In event of flood |
| Flood occurrence | Raise a category 2 Alarm and commence procedure | Once alarm has been raised under Section 4.4, complete Section 4.5 - Evacuation. | Site Supervisor<br>Construction Manager<br>Project Manager | When 80mm of rainfall is expected within 24 hours |
| Post-flood | Conduct safety walk through | Determine whether it is safe to return to site and repair any damage | Environmental Manager<br>Construction Manager<br>Site Supervisor<br>HSSE Manager | Following flood event |

# 5 Flood recovery

## 5.1 Site inspections

The site would be opened only once it is deemed safe following a site inspection by the HSE Manager and Site Supervisor. Other specialists, such as structural engineers, may be requested to assess the site prior to reopening. The inspection would identify if any environmental and/or safety hazards remain.

## 5.2 Reporting

Should the flood event and associated project response actions constitute an incident, then investigation, notification and reporting will occur in accordance with Section 8 of the CEMP – Incidents and emergencies. Incidents may include for example, a spill or release of contaminants due to floodwaters inundating machinery or equipment.

The investigation will include a review of events leading up to the incident and implement improved practices as required.

# Appendix A - Flood Incident Guideline

## Flooding - Inclement Weather

| | | | | |
|---|---|---|---|---|
| **Scenario description** | Flooding from rain deluge | | | |
| **General outline of emergency response** | Increased level of alert of flooding. Initiate site preparation and PMT/safety to make decision whether all crew are to leave the site via a safe route or establish a skeleton crew to remain on site. Once alarm raised, complete PMT/safety plan. Involve appropriate external agencies if required. | | | |
| **Disciplines required (indicate) – Guide only** | Firefighting | ☐ | First Aid | ☐ |
| | Vehicle extraction | ☐ | Breathing apparatus | ☐ |
| | Hazmat | ☐ | Rescue | ☐ |
| | Specialist | ☐ | Other | ☐ |
| **Emergency response resources and their location** | **Site** | ERT, HSE Manager | | |
| | **ER Internal Support** | Fire and Rescue, NSW SES | | |

| QUESTIONS | Y/N | ACTIONS |
|---|---|---|
| Can work be relocated to a drier area? | | If Y, then work can proceed |
| Is there alternative work available at a drier location? | | If Y, then work can proceed |
| Can tarps and/or enclosures be erected to keep out the rain? | | If Y, then work can proceed |
| Can truck unloading be performed in a dry area? | | If Y, then work can proceed |
| Can non-electrical work be performed? | | If Y, then work can proceed if workers remain dry |
| Will wet weather gear keep the user dry? | | If Y, then work can proceed if work can be done safely |
| Will wearing of wet weather gear cause additional hazards, excessive sweating, heat stress? | | If Y, then wet weather gear is not suitable and alternative work required |
| Can slings and/or chains be prevented from slipping? Can lift be performed safely? | | If Y, then work can proceed if workers remain dry |
| Is work to be performed within an excavation? | | If Y, then alternative work is required |
| Is lightning and thunder evident? | | If Y, then personnel must work under cover |
| Is the area likely to flood? | | If Y, then consider damming area, temporary sump pump or alternative work. |
| Is it safe to access/leave site? | | If Y, then provide detail on the safe access routes to use |

# Appendix B - Emergency contact list

## EMERGENCY CONTACT LIST

| Position | Name | Contact |
|---|---|---|
| Person in Charge | Project Director | Phone: TBA<br>Email: TBA |
| Person in Charge | Site Supervisor | Phone: TBA<br>Email: TBA |
| Person in Charge | Construction Manager | Phone: TBA<br>Email: TBA |
| HSSE | HSSE Manager | Phone: TBA<br>Email: TBA |
| HSSE | Environmental Manager | Phone: TBA<br>Email: TBA |
| Log Keeper | HSE Administrator | Phone: TBA<br>Email: TBA |
| Emergency Response Team | External Agencies | Phone: TBA<br>Email: TBA |

Note that this contact list is an example only, live lists will be kept up to date within the project office.

## EMERGENCY SERVICE CONTACT DETAILS

| Emergency Contacts | |
|---|---|
| **IN AN EMERGENCY** and **FOR ALL FIRES: DIAL 000 (TRIPLE ZERO)**<br>Secondary Emergency Call from Mobiles: Dial 112 |  |
| DO NOT CALL 000 FOR INFORMATION OR ADVICE. CALLING 000 UNNECESSARILY MAY PUT OTHERS WHO ARE IN A GENUINE EMERGENCY SITUATION AT RISK. | |
| **All emergencies including flooding** | **Dial 000** |
| **All** | |
| Transgrid (emergencies) | 1800 027 253 |
| EPA Pollution Incident Hotline | 131 555 |
| State Emergency Service | 132 500 |
| Roads and Maritime Services | 13 22 13 |
| **NSW** | |
| NSW RFS | https://www.rfs.nsw.gov.au/fire-information/fires-near-me |
| NSW Ambulance | 131 233 |
| Wentworth Police Station (not 24 hours) | 03 5027 3102 |
| Wentworth Fire Station | 03 5027 3377 |
| Wentworth LGA RFS | 03 5027 4422 |
| Fire and Rescue NSW General Enquires | 02 9265 2999 |
| Wentworth Shire Council | 03 5027 5027 |
| SafeWork NSW | 13 10 50 |
| Barrier Police District | 08 8082 7299 |
| NSW SES Murray Region Headquarters | 02 6058 5300 |
| **VIC** | |

| | |
|---|---|
| Mildura Rural City Council | 03 5018 8100 |
| Mildura Police Station | 03 5018 5300 |
| Mildura Fire Station | 03 5051 4100 |
| WorkSafe Vic | 1800 136 089 |
| Fire and Rescue Vic General Enquires | 1300 367 617 |
| Vic Ambulance | 1300 366 141 |
| Vic Emergency | https://emergency.vic.gov.au/respond/ |

# Appendix C - Relevant legislation

| Legislation/ Regulations | Aspect | Reference | Requirement | Applicability | Responsibility |
|---|---|---|---|---|---|
| **New South Wales legislation** | | | | | |
| *Environmental Planning and Assessment Act 1979* (EP&A Act) | All | Section 5.5 | A determining authority has the duty to fully consider the environmental impact (including Aboriginal or non-Aboriginal heritage) of an activity and is required to 'take into account the fullest extent possible all matters affecting, or likely to affect the environment' arising from the proposal. | The *EnergyConnect (NSW - Western Section) - Environmental Impact Statement* was submitted to Department of Planning, Industry and Environment in October 2020 and publicly exhibited between 26 September 2019 and 10 December 2020.<br>On 14 April 2021, the response to submissions was finalised in the *EnergyConnect (NSW - Western Section) – Submissions Report*.<br>A separate *EnergyConnect (NSW - Western Section) – Amendment Report*, to document design changes and additional environmental assessment undertaken, was also finalised on 14 April 2021.<br>Transgrid prepared and provided a memorandum titled EnergyConnect (NSW – Western Section) Response to DPIE Request for Information – 7 May 2021 and subsequent discussions to DPIE on the 10 August 2021 in response to DPIE requested additional information (EnergyConnect (NSW – Western Section)(SSI-10040) Request for Additional Information). | Transgrid |
| *Roads Act 1993* | Road usage | Section 138 | Road occupancy licences (ROLs) required for any activity likely to impact on traffic flow<br>ROL may be required from TfNSW or Wentworth Shire Council based on road owner | A Road Occupancy Licence (ROL) will be obtained for all activity likely to impact the operational efficiency of the road network, as required by the relevant roads authority. The licence applies to the occupation of the road corridor only and does not grant approval for the works being undertaken. | SecureEnergy |
| *Work, Health and Safety Act 2011*<br>*Work Health and Safety and Regulation 2011* | Health and safety of workers and workplaces | All | This Act provides work health and safety regulations for the management of contaminated waste such as asbestos as well as consideration of health and safety hazards to on-site workers associated with normal construction operations. | Yes, management of contaminated waste including hazardous waste such as asbestos are detailed in the Waste Management Plan. The health and safety of on-site workers' wellbeing are detailed in the HSSE Plan. | SecureEnergy |
| *Dangerous Goods (Road and Rail Transport) Act 2008* | Hazards and risks | Section 9 | Ensure that dangerous goods are transported in a safe manner. | Dangerous goods are required to be transported in a safe manner.<br>Vehicles that transport dangerous goods are required to be licensed.<br>Drivers transporting dangerous goods are required to be licensed. | SecureEnergy and SecureEnergy's Subcontractors |

| Legislation/ Regulations | Aspect | Reference | Requirement | Applicability | Responsibility |
|---|---|---|---|---|---|
| | | | | Licences to transport dangerous goods will be obtained if required. | |
| *NSW Road Rules 2014* | Safe and efficient movement of traffic | All | To consolidate in a single instrument the road rules that are applicable in New South Wales.<br>To provide for road rules that are based on the Australian Road Rules so as to ensure that the road rules applicable in this State are substantially uniform with road rules applicable elsewhere in Australia,<br>To provide for other road rules to be observed in this State in relation to matters that are not otherwise dealt with in the Australian Road Rules | Support the objectives of the legislation by ensuring mitigation recommendations are aligned with the Road Rules. | SecureEnergy |
| *Road Transport Act 2013* | Provisions concerning road users, road transport and the improvement of road safety | All | To consolidate most of the existing statutory provisions concerning road users, road transport and the improvement of road safety in this jurisdiction.<br>To provide the Agreed Reforms within the meaning of the Inter-Governmental Agreement for Regulatory and Operational Reform in Road, Rail and Intermodal Transport entered into by the Commonwealth, the States and the Territories.<br>To facilitate recovery of expenses incurred in the administration of this Act and the collection of fees and charges payable.<br>To provide for additional matters concerning the regulation of road users and road transport and the improvement of road safety in this jurisdiction. | All drivers are required to have a valid driver's licence.<br>All vehicles must be registered with the applicable vehicle registration system. | SecureEnergy and SecureEnergy's Subcontractors |