PUBLIC

Traffic and Transport Management Plan
EnergyConnect (NSW – Eastern Section)
Stage 1

45860-HSE-PL-D-0109

REV	DATE	GENERAL DESCRIPTION	PREPARED	REVIEWED	VERIFIED	VERIFIED	APPROVED
C	16/08/2022	Issued for agency consultation	K.Nestmann	R.Walker-Edwards	A.Boyd	B.Calligeros	S.Basanta
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2	16/12/2022	Revised to address Department comments	M.Lee	R.Walker-Edwards	G.Crighton	B.Calligeros	S.Basanta
3	19/01/2023	Revised to address Wagga Wagga City Council comments	R.Walker-Edwards	C.Curlewis	G.Crighton	B.Calligeros	S.Basanta
4	20/01/2023	Revised to address DPE comments	R.Walker-Edwards	C.Curlewis	G.Crighton	B.Calligeros	S.Basanta
5	27/01/2023	Revised to address DPE comments	R.Walker-Edwards	A.Boyd	G.Crighton	B.Calligeros	S.Basanta

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Revision History	
Rev.	**Detailed Description**
A	Issued for internal review
B	Issued for Transgrid review
C	Updated to address Transgrid's comments. Issued for agency consultation.
D	Updated to address TfNSW's comments. Issued for TfNSW review. Issued to the Environmental Representative.
0	Updated to address agency comments and the Environmental Representative's comments.
1	Updated to address comments from the Department
2	Updated to address comments from the Department
3	Updated to address comments from Wagga Wagga City Council (comments sought by DPE)
4	Revised to include further approval for Elizabeth Avenue (Inglewood to Gregadoo East Road) in Table 5.1
5	Revised to address comments from the Department

Key Document Stakeholders
To be communicated with during reviews and revisions of this document

Contents

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Abbreviations

Acronym	Definition
Amendment Report	*Amendment Report EnergyConnect (NSW – Eastern Section)*
BAL	Rural Basic Left Turn
BAR	Rural Basic Right Turn
CCS	Community Communication Strategy
CEMP	Construction Environmental Management Plan
CoR	Chain of Responsibility
CSSI	Critical State significant infrastructure
Cth	Commonwealth of Australia
DAWE	Department of Agriculture, Water and the Environment
DCC	Driver's Code of Conduct
DECCW	(former) Department of Environment, Climate Change and Water
DPE or Department	NSW Department of Planning and Environment
EIS	*Environmental Impact Statement EnergyConnect (NSW – Eastern Section)*
EP&A Act	*Environmental Planning and Assessment Act 1979*
EPBC Act	(Commonwealth) *Environment Protection and Biodiversity Conservation Act 1999*
EPC	Engineering, Procurement and Construction
EPL	Environment Protection Licence
ER	Environmental Representative
FRP	Flood Response Plan
GCM	Gross combination mass
GIS	Geographical information system
GVM	Gross vehicle mass
HSSE	Health, Safety, Sustainability and Environment
HVNL	Heavy Vehicle National Law
IVMS	In Vehicle Monitoring System
LGA	Local government area
NHVR	National Heavy Vehicle Regulator
NSW	New South Wales
OSOM	Oversize Overmass
Planning Secretary	Planning Secretary under the EP&A Act, or nominee
project, the	EnergyConnect (NSW – Eastern Section)
PMT	Project Management Team
Response to DPE Request for Information	EnergyConnect (NSW – Eastern Section) Response to Department of Planning and Environment Request for Information (30 August 2022)
RMMs	Revised mitigation measures
ROL	Road occupancy licence
SA	South Australia
SAPs	Sensitive area plans

Acronym	Definition
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	*Submissions Report EnergyConnect (NSW – Eastern Section)*
SWMP	Soil and Water Management Plan
TCP	Traffic Control Plans
TfNSW	Transport for New South Wales
TTMP, this plan	Traffic and Transport Management Plan
VMP	Vehicle Movement Plan
WMS	Work method statement
WWCC	Wagga Wagga City Council

1 Introduction

1.1 Context

This Traffic and Transport Management Plan (TTMP or this plan) forms part of the Construction Environment Management Plan (CEMP) for Stage 1 of EnergyConnect (NSW – Eastern Section).

This plan has been prepared to address the relevant requirements of the Infrastructure Approval (SSI-9172452), the *Environmental Impact Statement EnergyConnect (NSW – Eastern Section)* (EIS), *Submissions Report EnergyConnect (NSW – Eastern Section)* (Submissions Report) and the *Amendment Report EnergyConnect (NSW – Eastern Section)* (Amendment Report).

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; and
- EnergyConnect (NSW – Eastern Section) – Buronga to Wagga Wagga (the project).

A referral under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) was submitted on 25 August 2020. The Australian Department of Agriculture, Water and the Environment (DAWE) determined the project to be a controlled action on 30 September 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 January 2022 and was placed on public exhibition from 19 January 2022 to 15 February 2022. A total of 75 submissions were received, with five from special interest groups, nine from local councils and 44 from the public. In addition, 17 government agencies also provided advice during this time.

The Submissions Report was prepared for the project in response to the submissions received during the public exhibition of the EIS and includes the final set of revised mitigation measures (RMMs) that are to be applied. The Submissions Report was finalised in May 2022.

Transgrid also prepared a separate Amendment Report to document design changes and additional environmental assessment undertaken since exhibition of the EIS. The Amendment Report and was also finalised in May 2022.

On 2 June 2022, the Department requested additional information (Project EnergyConnect (NSW - Eastern Section) (SSI-9172452) Request for Additional Information (June 2022)) to assist with the assessment of the project. In response Transgrid prepared and provided the EnergyConnect (NSW – Eastern Section) Response to Department of Planning and Environment Request for Information (Response to DPE Request for Information) to address the various requests for information raised by the Department. The Response to DPIE Request for Information was dated 30 August 2022.

Approval for the project under the EP&A Act was granted by the NSW Minister for Planning (Infrastructure Approval SSI-9172452). 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 A8 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 requirements of the Infrastructure Approval that are not applicable to that stage. This TTMP is staged in accordance with condition A8. The two stages are as follows:

- Stage 1 – establishment of three accommodation camps, establishment and operation of five construction compounds, site establishment and construction works for the upgrade of Wagga Wagga substation and Dinawan substation and water supply points; and
- Stage 2 – all other construction activities.

SecureEnergy will construct the project in accordance with the approved stages identified above and will prepare and submit the CEMP and CEMP Sub-plans (and other relevant strategies, plans or programs - including this TTMP) on a staged basis.

This TTMP has been prepared specifically for EnergyConnect (NSW – Eastern Section) Stage 1 of construction and will be implemented for the duration of Stage 1 construction.

The TTMP for Stage 2 will include details of Stage 2 construction activities and will ensure that the relevant conditions of the Infrastructure Approval are addressed in relation to those activities. Construction of Stage 2 will not commence until the Planning Secretary is satisfied with the CEMP and CEMP Sub-plans for Stage 2.

The key project components of Stage 1 of construction include, but are not limited to, the activities provided in Table 1.1. The location of the key project components for Stage 1 are shown in Figure 1.1.

Table 1.1 - Key project components of Stage 1 of construction

Key activity	Description of key activity
Environmental investigations, including biodiversity and heritage protection, salvage and recordings.	These key activities will have already commenced as part of the pre-construction minor works permitted in accordance with the Infrastructure Approval. The definition of 'construction' within the Infrastructure Approval excludes these pre-construction minor works (defined separately within the Infrastructure Approval), road upgrades and operation of the accommodation camps. These activities will therefore not be subject to the Stage 1 CEMP and CEMP sub-plans.
Other survey work, such as road dilapidation surveys, and surveys of the general alignment and existing utilities.	
Bulk earthworks at Wagga Wagga substation upgrade and expansion site and at Dinawan substation site	Bulk earthworks to form the Dinawan substation pad including placement of approximately 200,000 cubic metres of material to allow for the construction of the substation pad. Earthworks are also required at the Wagga Wagga substation upgrade and expansion site. Contaminated material within the existing building and nearby areas will be removal from site, where required. Crushing and screening activities may be required to meet the engineering and volume requirements on both sites. Existing soil that does not meet engineering requirements for the substation pad will be segregated and placed as temporary stockpiled for removal from site. Bulk earthworks for both sites will continue along with excavation and preparation of the site for concrete foundations, footings, pads and general site drainage works.
Site establishment and construction works at Wagga Wagga substation upgrade	The existing Wagga Wagga substation will be upgraded and expanded to accommodate the new transmission lines, transformer bays and relocating existing bays including associated electrical and civil works. The main site establishment activities and construction works to be undertaken at Wagga Wagga substation upgrade and expansion site includes: • clearing of vegetation within the disturbance area (including scrub, undergrowth and ground vegetation);

Key activity	Description of key activity
	• localised earthworks and associated civil works within the existing substation site and where required, replacement of topsoils; • establishing crushing and screening plants (if required), ancillary facilities, including but not limited to offices and amenities, and internal pavements / roads; • installation of construction environmental management measures, where required, including general site drainage works, erosion and sediment controls; • demolition of the existing transformer storage, oil storage and equipment sheds to accommodate the double circuit configuration. Works would be required to clear the concrete base, bunds and other utilities (oil and water pipes which would require relocation); • installation of reinforced concrete and piled foundations for specialised electrical equipment and for the new and expanded substation buildings; • removal and where appropriate re-use of existing electrical equipment (as required based on detailed connection requirements) and final design agreement with Transgrid; • installing temporary and permanent fencing (including perimeter fencing around the site where required), signage and security measures; • new electrical line bays constructed to the west of the existing infrastructure and associated civil works which will require new foundations and cable trench extension; • extension of the existing switchyard and installation of electrical equipment such as cables, conduits, earth grid and trenches; • relocation of existing and proposed new circuit for incoming transmission lines; • relocation, modification and replacement of existing utility infrastructure within the Wagga Wagga substation site including existing capacitor banks and associated equipment, line disconnector/ earthing switches, surge arresters and capacitor voltage transformers; and • adjustment of existing and/or installation new stormwater drainage system.
Site establishment and construction works at Dinawan substation site	A new substation will be constructed halfway between Coleambally and Jerilderie. The new substation is referred to as Dinawan substation and located approximately 500 to 700m east of Kidman Way and accessed via a newly constructed access road. The infrastructure and equipment that will be installed at Dinawan substation includes: • two line bays installed at the western end of the substation to provide a connection to the Buronga substation and two line bays installed at the eastern end of the substation to provide a connection to the Wagga Wagga substation; and • installation of a range of supporting electrical components including capacitor banks, synchronous condensers, transformers, shunt reactors, overhead conductors, busbars, gantries and circuit breaker switchgear equipment. The main site establishment activities and construction works to be undertaken at the Dinawan substation includes: • clearing of vegetation within the disturbance area (including scrub, undergrowth and ground vegetation); • localised earthworks and associated civil works within the new substation site and where required, replacement of topsoils; • establishing crushing and screening plants (if required), ancillary facilities, including but not limited to offices and amenities, and internal pavements / roads; • installation of reinforced concrete and piled foundations for specialised electrical equipment for the new substation buildings; • construction of secondary system control buildings to accommodate protection for new switchgear and fixed portions of secondary system; • installation of control and protection systems including relays, metering, disturbance recorder, etc; • installation of electrical distribution system; • construction of oil containment system (including bunding and containment tank); • installation of lighting and lighting mast(s); • installation of security fencing and security system (such as security cameras and asset protection zones);

Key activity	Description of key activity
	• adjustment of existing and/or construction of new stormwater drainage system; and • installation of associated communications network infrastructure.
Site establishment of the accommodation camps	Stage 1 of the project will require the establishment and operation of the following accommodation camps, construction compounds and laydown areas: • construction compound at Wagga Wagga; • accommodation camp and construction compound at Lockhart; • accommodation camp and construction compound at Dinawan; • accommodation camp and construction compound at Cobbs Highway; • construction compound at Balranald; and • continued use of the construction compound at Buronga. The main activities that would be undertaken at each construction compound and accommodation camp includes: • bulk earthworks including clearing of vegetation within the disturbance area (including scrub, undergrowth and ground vegetation); • clearing and removal and where required, replacement of topsoils, and general site drainage works; • for the accommodation camps, establishing the accommodation camps and associated facilities, including but not limited to site offices, amenities, wastewater treatment plants, power generators, hazardous material and fuel storage area and internal roads; • for the construction compounds, establishing and operating site offices, crushing and screening plants (if required), laydown areas, other ancillary facilities, including but not limited to amenities, and internal roads; • connections and pre-commissioning of on-site utilities (wastewater treatment plant, connection to mains power grid and etc.) for the construction compounds and accommodation camps; and • installing temporary fencing, signage and security measures as well as any necessary construction environmental management measures such as erosion and sediment controls, where required. The definition of 'construction' within the Infrastructure Approval excludes the operation of the accommodation camps. The operation of the accommodation camps is addressed in their respective Accommodation Camp Management Plan required under condition C50. Therefore the operation of the accommodation camps will not be subject to the Stage 1 CEMP and CEMP sub-plans. Irrespective of this, these activities will occur in accordance with the relevant conditions of the Infrastructure Approval.
Site establishment and operation of the construction compounds and laydowns	
Traffic access routes and access points	The construction vehicle movements will be required for a variety of activities (i.e. earthworks, clearing and grubbing activities). All construction vehicles associated with the development will travel via the access routes as identified in Appendix 3 of the Infrastructure Approval or as otherwise approved. The establishment of access points would include establishing vehicle access and egress points to ensure safe vehicle movements. Existing access points may also be used. The definition of construction within the Infrastructure Approval excludes road upgrades (which includes access points). Road upgrade works are, however, incorporated within the Traffic and Transport Management Plan as required by condition C35.
Water supply points – establishment and/or use	A number of water supply points along the length of the project will be used to support project-related activities. The proposed water supply points which are to be established and/or used include: • Church Street, Balranald Shire Council; • 111 Jerilderie Street, Murrumbidgee Council; • Dinawan Stock & Domestic, Murrumbidgee Council; • Bulgary (Rohan Road), Lockhart Shire Council; • Lockhart (Lockhart - the Rock Road), Lockhart Shire Council; • Lake Albert (Plumpton Road), Wagga Wagga City Council; • Ashfords Road, Wagga Wagga City Council; • Dinawan Camp and Laydown, Murrumbidgee Council;

Key activity	Description of key activity
	• 137 Cadell Road, Jerilderie, Murrumbidgee Council*; • 6204 Yanga Way, Yanga, Murray River Council*; • 812 Windomal Road, Balranald, Balranald Shire Council; • 394 Hay Rd, Deniliquin, Edward River Council; • 9 Lang Street, Wanganella, Edward River Council; • 50 Elizabeth Avenue, Forest Hill, Wagga Wagga City Council*; • 39 Urana Street, The Rock, Lockhart Shire Council; • 2850 Lockhart the Rock Road, Tootool, Lockhart Shire Council; • Old French Park-Bullenbong Road, French Park, Lockhart Shire Council; • Richmond Street, Boree Creek, Federation Council; • Alcheringa Drive, Buronga, Wentworth Shire Council [1]; • Modica Crescent, Buronga, Wentworth Shire Council [1]; and • Fletchers Lake Road, Dareton, Wentworth Shire Council [1]. The establishment and use of water supply points are enabling works required early in the overall construction program to support road upgrades and pre-construction minor works, and to facilitate the commencement of substantial construction. The water supply points may require works to the existing infrastructure to enable connection and use by the water supply vehicles. The definition of 'construction' within the Infrastructure Approval excludes these activities. They will therefore not be subject to the Stage 1 CEMP and CEMP sub-plans. Irrespective of this, these activities will occur in accordance with the relevant conditions of the Infrastructure Approval. * The water supply points denoted above with an asterisk are additional to the water supply points identified in the EIS. Section 6.9.2 of Appendix B of the Amendment Report identifies potential sources of water for the project and notes that the final water sources, including any additions, would be confirmed in consultation with the water suppliers. Consultation with potential water suppliers has progressed and the list of proposed water supply points above has been amended accordingly. Prior to the use of each additional water supply point, the project would: – confirm that the water supply point could be accessed using the approved access routes identified in Appendix 3 to the Infrastructure Approval, or otherwise obtain the Planning Secretary's agreement in accordance with condition C32; – reach agreement with the water supplier regarding the use of the water supply point for the project; and – carry out any additional assessments which may be required. [1] These water supply points have been included in the Project EnergyConnect (NSW - Western Section) Construction Environmental Management Plan and the associated CEMP Sub-plans and will continue to be used for Project EnergyConnect (NSW – Eastern Section).
Utility works, adjustments and protection	General utility protection and adjustment works, where required. In particular, to allow for the Wagga Wagga substation expansion and Dinawan substation installation, the establishment of the accommodation camps and the establishment and operation of the construction compounds, and elsewhere as required. The definition of 'construction' within the Infrastructure Approval excludes minor adjustments to services/utilities for pre-construction minor works activities. They will therefore not be subject to the Stage 1 CEMP and CEMP sub-plans. Irrespective of this, these activities will occur in accordance with the relevant conditions of the Infrastructure Approval.

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 1 CEMP and this TTMP.

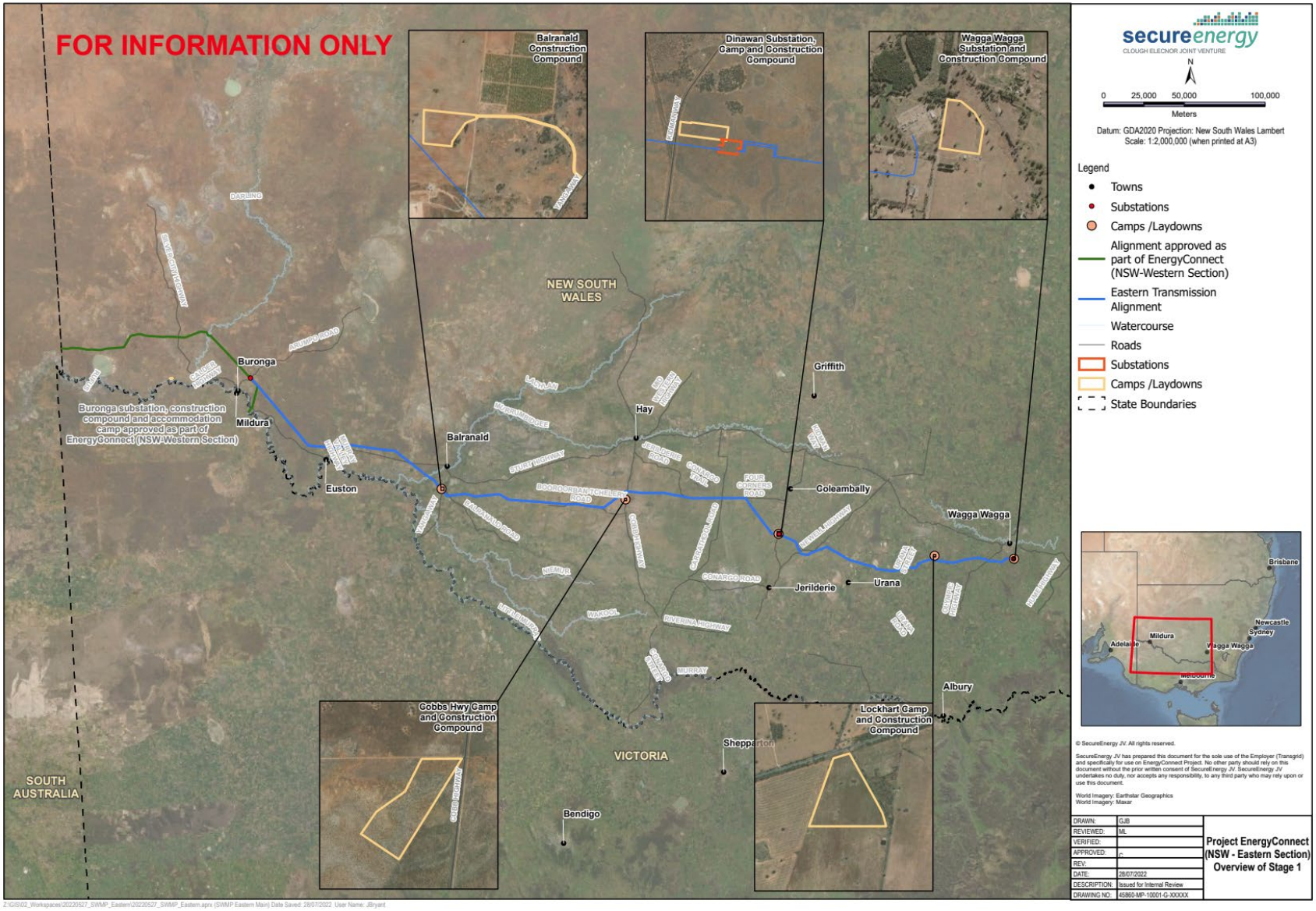


Figure 1.1 - Location of key project components of Stage 1

1.4 Environmental management system

The overall Environmental Management System for the project is described in Section 4 of the CEMP.

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 1.2 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), the geographical information system (GIS)/sensitive area plans (SAPs) or training and awareness material.

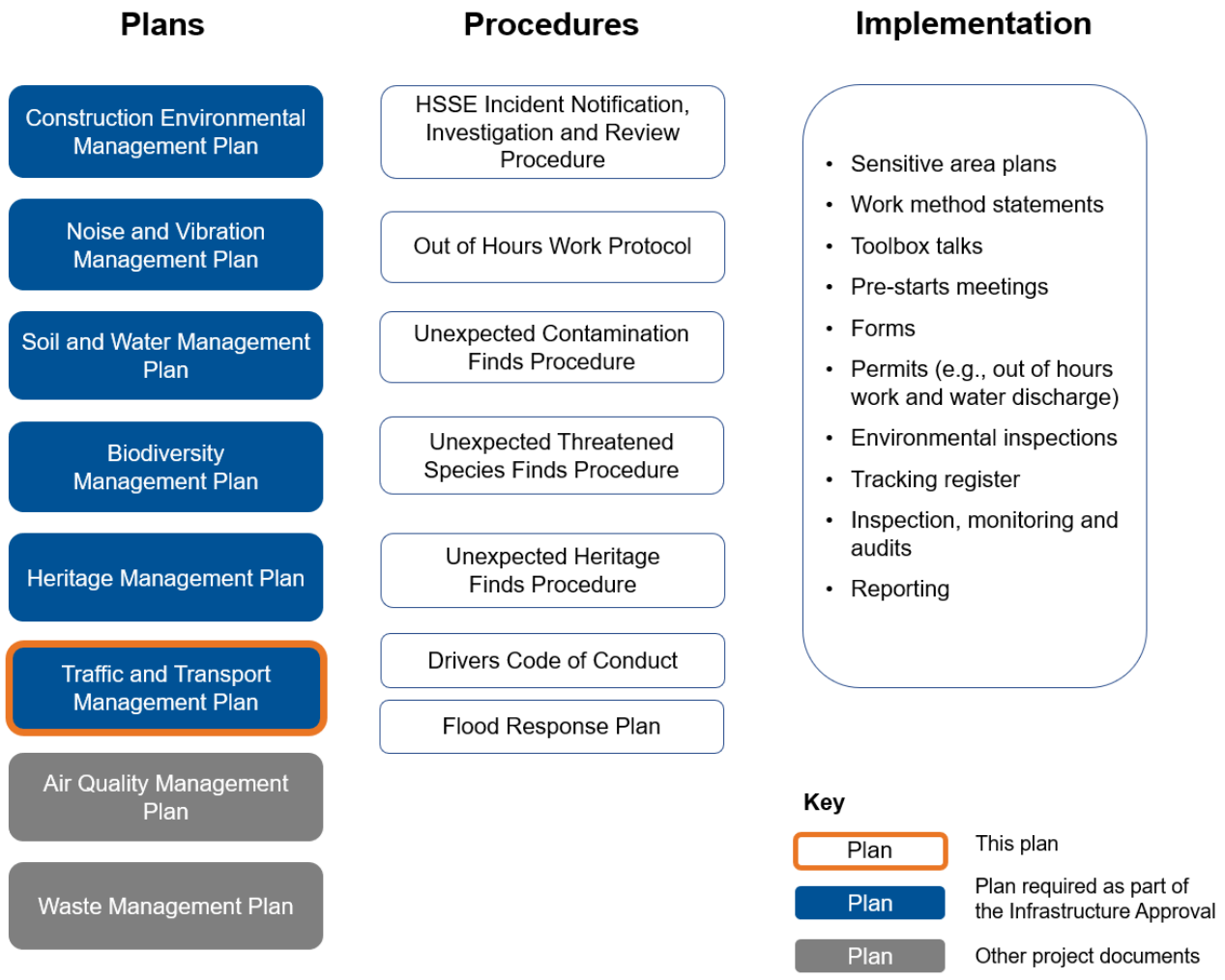


Figure 1.2 - CEMP framework

1.5 Purpose and objective

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

The key objective of this TTMP 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 the construction of the project;

- implement appropriate measures to address the requirements outlined in the Infrastructure Approval, EIS, Submissions Report and Amendment Report; and
- implement appropriate measures to comply with relevant legislative requirements as described in Section 2.1 of this plan.

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. The performance measures and indicators that are most 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 complaints due to traffic, transport and access from community	Implementation of the management measures in this plan. 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. Follow up action of complaints as recorded in Consultation Manager.

1.6 Preparation of this plan

This plan has been prepared and reviewed by suitably qualified and experienced persons. This plan was prepared by Katrina Nestmann and Martin Lee, and reviewed by Rebecca Walker-Edwards and Graham Crighton.

1.7 Consultation

1.7.1 Development of this plan

In accordance with condition B1(e) of the Infrastructure Approval and RMM TA1, this TTMP has been prepared in consultation with:

- Transport for New South Wales (TfNSW); and
- relevant councils (Balranald Shire Council, Murray River Council, Edward River Council, Hay Shire Council, Murrumbidgee Council, Federation Council, Lockhart Shire Council, Wentworth Shire Council and Wagga Wagga City Council).

This TTMP 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 will be submitted to DPE along with the submission of this plan.

1.7.2 Ongoing communication and consultation

SecureEnergy will use a range of tools in accordance with the *Community Communication Strategy* (CCS) (45860-HSE-DOC-D-0024) to facilitate ongoing consultation and communication with the community and stakeholders (including government agencies where necessary) 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, 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.

Consultation will also continue to occur with Wagga Wagga City Council in relation to the use of Plumpton Road and any weight or load limits which apply to the use of the road. Please note that use of Plumpton Road would be in accordance with these limits. Refer to management measure TT21 within Table 6.2.

In accordance with condition D12 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.transgrid.com.au/projects-innovation/energyconnect. A 24-hour toll-free telephone number (1800 490 666) is also available for any project enquiries. In accordance with condition D12 b) the information will be kept up to date.

Project information which will be made available on the project website in accordance with condition D12, includes:

- the EIS;
- current statutory approvals for the development;
- approved strategies, plans, programs or reports required under the conditions of the Infrastructure Approval;
- the proposed staging plans for the development if the construction, decommissioning and/or operation of the development is to be staged;
- a comprehensive summary of the monitoring results of the development, which have been reported in accordance with the various plans and programs approved under the conditions of the Infrastructure Approval;
- a record of complaints, which is to be updated on a monthly basis;
- any independent environmental audit, and the Proponent's response to the recommendations in any audit; and
- any other matter required by the Planning Secretary.

1.7.3 Complaints

Complaints will be managed by the Engagement Team with the use of Consultation Manager. 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, 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. As part of this, a Community Complaints Mediator will be engaged to address any complaint where a member of the public is not satisfied by SecureEnergy's response. The escalated review process will include an assessment of the details of the complaint received, any findings of the investigation undertaken in response to the complaint, and any further matters raised by the complainant.

If a complaint requires referral to senior management and Transgrid, the complainant will be informed of this and the outcome of the review process. DPE also may request that the Environmental Representative (ER) assist in dispute resolution of community complaints. A summary of complaints received will be provided to the ER.

1.8 Submission and approval

Prior to submission to DPE, the TTMP will be reviewed by the ER to ensure the plan is consistent with the requirements of the Infrastructure Approval. A written statement to this effect will be prepared and submitted to DPE. The ER review will be undertaken in accordance with condition A12 of the Infrastructure Approval.

This TTMP will be submitted to DPE for review and approval by the Planning Secretary prior to commencing Stage 1 of construction.

Stage 1 of construction will not commence until the CEMP and all sub-plans required under condition B1, 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 1 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. This includes the review and, if necessary, revision of this TTMP in accordance with condition D2 within three months of the following:

- submission of an incident report under condition D6 of the Infrastructure Approval;
- submission of an audit report under condition D11 of the Infrastructure Approval; or
- any modifications to the Infrastructure Approval.

Any updates to the TTMP will be approved in line with Section 1.10 of 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.

2.2 Conditions of Approval

The conditions of the Infrastructure Approval relevant to traffic and transport for Stage 1 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>A1</td><td>In meeting the specific performance measures and criteria of this approval, all reasonable and feasible measures must be implemented to prevent, and if prevention is not reasonable and feasible, minimise, any material harm to the environment that may result from the construction, operation, rehabilitation, upgrading or decommissioning of the development.</td><td>Section 6</td><td>Section 6 identifies the management measures to be implemented to prevent, and if prevention is not reasonable and feasible, minimise harm.</td></tr>
<tr><td>A19</td><td>All plant and equipment used on site, or in connection with the development, must be:
a) maintained in a proper and efficient condition; and
b) operated in a proper and efficient manner.</td><td>Table 6.2 - TT47</td><td>Management measure TT47 in Table 6.2 requires that all plant and equipment used on the project are maintained in a proper and efficient condition, and operated in a proper and efficient manner.</td></tr>
<tr><td>B1</td><td>Prior to commencing construction, an Environmental Management Plan (EMP) comprising the Sub-plans listed in Table 1 must be prepared by suitably qualified and experienced persons, to the satisfaction of the Planning Secretary.
Following the Planning Secretary’s approval, the Proponent must implement the Environmental Management Plan.
Table 1: EMP Sub-plans
<table><tr><th></th><th>Required EMP Sub-plan</th><th>Relevant government agencies and stakeholders to be</th></tr></table></td><td>Section 1.6
Section 1.7
Section 5
The CEMP</td><td>The CEMP (in lieu of an EMP) has been prepared by suitably qualified and experienced persons prior to the commencement of construction.
This TTMP has been provided to TfNSW and all councils for consultation. The outcomes of consultation have been incorporated throughout this TTMP where appropriate.</td></tr>
</table>

Condition no.	Requirement	Where addressed	How addressed
	<table><tr><th></th><th></th><th>consulted for each EMP Sub-plan</th></tr><tr><td>(e)</td><td>Traffic and Transport</td><td>TfNSW Relevant Council</td></tr></table>		
B2	The EMP Sub-plans must be prepared in accordance with relevant guidelines and in consultation with the relevant government agencies identified for each Sub-plan in Table 1, and include:	Section 1.7 Section 2.5	This TTMP has been prepared in accordance with relevant guidelines and in consultation with TfNSW and the relevant councils.
	a) a summary of relevant background or baseline data;	Section 3	The existing environment related to traffic and transport for Stage 1 is outlined in Section 3.
	b) details of:		
	(i) the relevant statutory requirements (including any relevant approval, licence or lease conditions);	Section 2 Appendix A1 of the CEMP	The relevant legislation, conditions and RMMs applicable to traffic and transport are outlined in Section 2. Appendix A1 of the CEMP provides further detail on the relevant legislation applicable to traffic and transport.
	(ii) any relevant limits or performance measures and criteria;	Section 1.5 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. The CEMP also provides project-wide environmental objectives (performance measures) and targets (criteria).
	(iii) 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 Section 4.2 of the CEMP – Objectives and targets	The performance indicators relevant to traffic and transport management are outlined in Section 1.5. The CEMP also provides project-wide performance indicators.
	(iv) 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.
	c) 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 1 of construction, and comply with the relevant statutory requirements, limits and performance measures, are outlined in Section 6.
	d) a program to monitor and report on the:		
	(i) impacts and environmental performance of the development (including a table summarizing all the monitoring and reporting obligations under the conditions of this approval); and	Section 7, including: Section 7.3 Section 7.4 Section 7.5 Section 7.6	The effectiveness of the management measures will be managed through the monitoring, inspections, auditing and reporting system outlined in Section 7.3 to 7.6 of this TTMP.

Condition no.	Requirement	Where addressed	How addressed
	(ii) effectiveness of the management measures set out pursuant to paragraph (c);	Section 7	Monitoring the effectiveness of the management measures is outlined in Section 7.
	e) 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 Section 8 of the CEMP - Incidents and emergencies Section 10 of the CEMP – Reporting 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. The CEMP also provides additional detail regarding incidents and emergencies, reporting, non-compliance, non-conformance, corrective and preventative actions.
	f) a program to investigate and implement ways to improve the environmental performance of the development over time;	Section 1.9 Section 7 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. This TTMP will reviewed at least annually as described in Section 1.9 of this TTMP and Section 1.9 of the CEMP. The Plan-Do-Check-Act model will be applied to the continuous improvement process, also outlined in Section 1.9 of the CEMP.
	g) a protocol for managing and reporting any: (i) incident, non-compliance or exceedance of any impact assessment criterion or performance criterion;	Section 7.7 Section 7.8 Section 8 of the CEMP - Incidents and emergencies Section 10 of the CEMP – Reporting Section 11 of the CEMP – Non-compliance, non-conformance, corrective and preventative action	Section 7.7 and Section 7.8 describe the procedures for emergencies, incidents and non-compliances, including those related to traffic and transport. Additional detail for managing incidents and emergencies, non-compliances and non-conformances is included in the CEMP. The protocol for reporting of any incidents, non-compliances or non-conformances is included in Section 10 and 11 of the CEMP.

Condition no.	Requirement	Where addressed	How addressed
	(ii) complaint; or	Section 1.7.3 CCS	A summary of the complaints management procedure and reporting of complaints is included in Section 1.7.3 of this TTMP. 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;	Section 7.7 Section 8 of the CEMP – Incidents and emergencies Section 10 of the CEMP – Reporting 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.
	h) public sources of information and data to assist stakeholders in understanding environmental impacts of the development; and	Section 1.2 Section 1.7.2	The TTMP contains publicly available data sources to assist with understanding the environmental impacts of the development. The local community and relevant agencies will be kept informed of construction progress and environmental performance through communication tools such as notifications and the project website as summarised in Section 1 of this TTMP.
	i) a protocol for periodic review of the EMP and EMP Sub-plans.	Section 1.9 Section 9.3 of the CEMP	The TTMP will be reviewed periodically in accordance with the CEMP and Section 1.9.
	The Planning Secretary may waive some of these requirements if they are unnecessary or unwarranted for particular management plans.		Noted.

Condition no.	Requirement	Where addressed	How addressed
C1	Road upgrades, construction, upgrading and decommissioning activities may only be undertaken between: a) 7 am to 6 pm Monday to Friday; b) 8 am to 1 pm Saturdays; and c) at no time on Sundays and NSW public holidays; unless the Planning Secretary agrees otherwise.	Section 6.6 NVMP	The standard construction hours for the project are identified in Section 6.6. Refer to the *Noise and Vibration Management Plan* (45860-HSE-PL-D-0110) for further details. Section 6.6 also provides details for works undertaken during the hours defined in conditions C1, C2 and C10 of the Infrastructure Approval.
C3	The Proponent must take all reasonable and feasible steps to minimise the road upgrades, construction, upgrading or decommissioning noise of the development in the locations where the noise is audible to sensitive receivers, including any associated traffic noise.	NVMP	The NVMP provides the management measures to minimise noise impacts on sensitive receivers.
C31	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 3, unless the Planning Secretary agrees otherwise. *Notes: 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 5.3	All over-dimensional vehicles associated with the development will only travel via the primary access routes described in the EIS, as identified in the figure in Appendix 3, unless the Planning Secretary agrees otherwise.
C32	All heavy and light vehicles associated with construction, upgrading and decommissioning of the development must travel to and from the site via the Primary Access Routes, Secondary Access Routes and Water Supply Routes as described in the EIS and identified in the figure in Appendix 3, unless the Planning Secretary agrees otherwise.	Section 5.1 Section 5.2	All heavy and light vehicles associated with the development will travel to and from the site via the primary and secondary access routes, and water supply routes as described in the EIS, and identified in Appendix 3 of the Infrastructure Approval, unless the Planning Secretary agrees otherwise Construction access routes that are additional to the access routes identified in Appendix 3 of the Infrastructure Approval are outlined in Section 5.2.
C33	Unless the Planning Secretary agrees otherwise, the Proponent must implement the road upgrades identified in Appendix 3 in accordance with the relevant standard and timing requirements, to the satisfaction of the relevant roads authority.	Section 6.2	Section 6.2.1 outlines the road upgrades required prior to commencing construction, as identified in Appendix 3 of the Infrastructure Approval.
C34	The Proponent must: a) undertake independent dilapidation surveys to assess the: (i) existing condition of all local roads on the transport routes (including local road crossings) prior to construction, upgrading or decommissioning works; and (ii) condition of all local roads on the transport routes (including local road crossings): – within 1 month of the completion of construction, upgrading or decommissioning works, or within	Section 6.1	Dilapidation surveys will be undertaken in accordance with this condition and as outlined in Section 6.1. 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.

Condition no.	Requirement	Where addressed	How addressed
	a timeframe agreed to by the relevant roads authority; – on an annual basis during construction, or within a timeframe agreed to by the relevant roads authority; and b) repair (or pay the full costs associated with repairing) any damage to local roads on the transport route (including local road crossings), if dilapidation surveys identify that the road has been damaged by the development during construction, upgrading or decommissioning works; c) prepare a report in consultation with the relevant roads authority If there is a dispute about the road maintenance works, or the implementation of these works, then either party may refer the matter to the Planning Secretary for resolution.		
C35	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 access routes for heavy and light vehicles, as well as oversize vehicle movements.
	b) details of the road upgrade works required by condition C33 of this approval, including; (i) final number, location and type of Minor Access Points intersections to be implemented; and (ii) verification that the proposed types of intersection treatments have sufficient capacity for the proposed vehicle numbers;	Section 6.2 Table 6.1 Section 6.2.1	Section 6.2 and Table 6.1 outline the road upgrade works, including minor access points, required for Stage 1 works. The intersection treatments will be verified as having sufficient capacity for the proposed number of vehicles. Refer to Section 6.2.1 for further details.
	c) details of the measures that would be implemented to:		
	(i) 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 C34 of this approval;	Section 6.1	Section 6.1 outlines the dilapidation surveys that will occur prior to construction for Stage 1.
	– a description of the proposed measures for managing traffic flow around the work sites, construction compounds and accommodation camps;	Section 5.6 Section 5.7 Section 6.2.1 Section 6.4	Section 6.2.1 and 6.4 outline measures to manage traffic flow around the work sites, construction compounds and accommodation camps during construction. The access points listed in Section 6.2 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* unless the Planning Secretary agrees otherwise. The

Condition no.	Requirement	Where addressed	How addressed
			design will consider traffic flow into and around the work site, accommodation camps and construction compounds. As required by Appendix 3 of the Infrastructure Approval, Type 1 access points will be installed at the accommodation camps and construction compounds l unless the Planning Secretary agrees otherwise. 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. The access points will be approved by the relevant road authority prior to use in accordance with condition C33. Traffic Control Plans (TCPs) will be prepared to address construction activities that affect traffic conditions, including those for the camp and compounds. Road Occupancy Licences (ROLs) will also be obtained (as required) for any road closures (full or partial) on roads that intersect with the access routes prior to any such closure.
	– temporary traffic controls, including detours and signage;	Section 6.4	The temporary traffic controls will be developed as part of the TCPs for Stage 1 and are outlined in Section 6.4 of this TTMP.
	– procedures for stringing cables and transmission lines across roads;	N/A	No stringing of cables and transmission lines across roads will occur as part of the Stage 1 works.
	– notifying the local community about development-related traffic impacts;	Section 1.7.2 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 CCS	Complaints will be managed by the Engagement Team with the use of the Consultation Manager database.
	– minimising potential cumulative traffic impacts with other projects in the area;	Section 6.5	Section 6.5 outlines the cumulative traffic impacts with other projects in the area.

Condition no.	Requirement	Where addressed	How addressed
	– 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 3.5 Section 6.5 Table 6.2 - TT6	Scheduling outlined in Section 6.5 will act to minimise potential for conflict with traffic and rail services, stock movements and other projects in the area. With no anticipated impacts/conflicts to school bus services, consultation with the local schools will commence, however is applicable to Stage 2 works. Management measure TT6 in Table 6.2 outlines measures for minimising conflict between development-related traffic and livestock.
	– implementing measures to minimise development-related traffic on the public road network outside of standard construction hours;	Section 6.6	Development-related traffic will be scheduled within standard hours, where possible. 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 6.2 – TT45	Management measure TT45 in Table 6.2 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 6.2 – TT43	Management measure TT43 in Table 6.2 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.
	– scheduling of haulage vehicle movements to minimise convoy length or platoons;	Section 6.5 Table 6.2 - TT29 to TT34	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. Management measures relating to scheduling of vehicles is outlined in management measures TT29 to TT34 of Table 6.2.

Condition no.	Requirement	Where addressed	How addressed
	– responding to local climate conditions that may affect road safety such as fog, dust, wet weather and flooding;	Section 6.5 Appendix B	Scheduling will act to minimise potential for conflict with local climate conditions such as fog, wet weather and flooding. The *Flood Response Plan* (FRP) (45860-HSE-PL-D-0122) 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 6.2 – TT44	Management measure TT44 in Table 6.2 states that all trucks entering or leaving the site with loads will have their loads covered.
	– responding to any emergency repair or maintenance requirements;	Section 6.7 Table 6.2 – TT35	Emergency repair and maintenance requirements is in Section 6.7 of this TTMP. Management measure TT35 in Table 6.2 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 6.2 Table 6.2 – TT27	Management measure TT27 in Table 6.2 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 Appendix A	The Driver's Code of Conduct (DCC) in Appendix A describes driver's obligations including the management of fatigue.
	(ii) comply with the traffic conditions in this approval;	Section 7	Section 7 of this TTMP describes compliance management related to traffic impacts for Stage 1, to ensure compliance with the traffic conditions in this approval.
	d) include a drivers code of conduct that addresses:		
	(i) travelling speeds;	Section 6.9 Appendix A	The DCC in Appendix A describes driver's obligations including obeying the speed limits.
	(ii) procedures to ensure that drivers to and from the development adhere to the designated over dimensional and heavy vehicle routes;	Section 6.9 Appendix A	The DCC in Appendix A describes the additional requirements for heavy vehicles or over dimension vehicles.
	(iii) procedures to ensure that drivers to and from the development implement safe driving practices; and	Section 6.9 Appendix A	The DCC in Appendix A describes that site personnel (including sub-contractors) will undertake an induction which will include details relating to the DCC.

Condition no.	Requirement	Where addressed	How addressed
	(iv) include a detailed program to monitor and report on the effectiveness of these measures and the code of conduct; and	Section 6.9 Section 6.10 Appendix A	The effectiveness of the management measures identified in this DCC will be monitored and reported through regular visual inspections. 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 6.11 Appendix B	A FRP describing the procedures and options for safe access to and from the accommodation camps in the event of flooding, has been prepared and is included as Appendix B of this TTMP.
C41	The Proponent must ensure that the storage, handling, and transport of dangerous goods is undertaken in accordance with the relevant Australian Standards and guidelines, particularly *AS1940 The storage and handling of flammable and combustible liquids* and *AS/NZS 1596:2014 The storage and handling of LP Gas, the Dangerous Goods Code, and the EPA's Storing and Handling of Liquids: Environmental Protection – Participants Manual*.	Section 6.8	Dangerous goods will be stored, handled and transported in accordance with *AS1940 The storage and handling of flammable and combustible liquids* and *AS/NZS 1596:2014 The storage and handling of LP Gas*, the *Dangerous Goods Code,* and the EPA's *Storing and Handling of Liquids: Environmental Protection – Participants Manual*.

2.3 Revised mitigation measures

The revised mitigation measures (RMMs) are provided in Appendix B of the Submissions Report and Appendix C of the Amendment Report. 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	Applicable location(s)	Where addressed	How addressed
TA1	A Traffic and Transport Management sub–plan would be developed and implemented. The sub–plan would detail how potential proposal–related traffic and access impacts during construction would be minimised and managed. This plan would be prepared in consultation with the local councils and Transport for NSW.	All locations	This plan Section 1.7	This TTMP outlines the management measures to manage and minimise impacts related to proposal related traffic and access requirements. This TTMP has been provided to TfNSW and all councils for consultation. The outcomes of consultation have been incorporated throughout the TTMP where appropriate.

Reference	Revised mitigation measures	Applicable location(s)	Where addressed	How addressed
TA2	The Traffic and Transport Management sub–plan would outline the process for obtaining road occupancy licences, and preparing and implementing traffic management plans and traffic controls plans, as required by the relevant roads authority, for road works. Road occupancy licences would be obtained prior to any such occupancy.	All locations	This plan Section 2.4.1 Section 6.4	Any ROLs required during construction will be obtained from the relevant road authorities. Where an ROL is required, the works covered by the ROL will not commence until that ROL has been issued. 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.
TA3	Any permits required under the National Heavy Vehicle Law for oversized and overmass vehicle movements associated with the proposal would be obtained from the National Heavy Vehicle Regulator. Permit applications would be supported by a Vehicle Movement Plan prepared to identify the proposed heavy vehicle route(s). The plan would consider activities of adjoining land uses and safety of the public, particularly when entering urban areas from rural highways.	Construction haulage routes, access/egress points to access tracks and main construction compound and accommodation camps	Section 2.4.2 Section 6.3.2 Section 6.3.2	If vehicles exceed the dimension or mass limits contained in a Class 1 Notice or Ministerial Order, an access permit from the National Heavy Vehicle Regulator (NHVR) will be required to operate on the NSW road network. 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.
TA4	Measures that are required to address potential road safety issues associated with proposal–related use of access routes would be identified in consultation with the relevant roads authority. Any road upgrade works to facilitate construction of the proposal would be designed in accordance with Austroads guidelines as relevant. The Traffic and Transport Management sub–plan would include a program for monitoring road safety along proposal access routes and addressing any construction–related issues identified.	Construction haulage routes, access tracks, main construction compound and accommodation camp accesses	Section 1.7 Section 6.2 Section 7.3	This TTMP have been provided to TfNSW and all councils for consultation. The outcomes of consultation have been incorporated throughout the TTMP where appropriate. Any designs for road upgrades will be completed in accordance with the *Austroads Guide to Road Design* as required. The effectiveness of the management measures identified in Section 6 will be monitored through the proposed monitoring program in Section 7.3.

Reference	Revised mitigation measures	Applicable location(s)	Where addressed	How addressed
TA5	A Driver Code of Conduct would be developed and implemented. The code would: • define acceptable driver behaviour for proposal personnel to promote road safety • address fatigue management • ensure that the impacts of construction–related vehicle movements on local roads and the local community are minimised.	Construction haulage routes, access tracks, main construction compound and accommodation camp accesses	Appendix A	The purpose of the DCC in Appendix A is to ensure that the impacts of construction-related traffic on local roads, the local community and businesses is minimised. The DCC defines acceptable driver behaviour for all vehicle drivers in connection with the project. The DCC also describes how fatigue will be managed in accordance with the DCC and the *Driving and Journey Management Work Instruction* (45860-HSE-WI-G-0041).
TA6	Consultation with rail authorities (operators) would occur for all proposal activities required in active rail corridors. The consultation would confirm authority requirements (such as track occupancy authorisations) and necessary requirements for staff working within the rail corridor (accreditations). All works in active rail corridors would occur in accordance with the identified requirements.	Where the transmission line requires access within the rail corridor.	Not applicable for Stage 1	Stage 1 does not involve activities within the transmission line corridor.
TA7	Road condition surveys would be carried out for all local roads that would be used as construction haulage routes, in consultation with the relevant roads authority. The surveys would be carried out prior to the road being used by heavy vehicles to support construction of the proposal. A road condition monitoring and maintenance program would be developed in consultation with the relevant roads authority for all local roads used as construction haulage routes and implemented for the duration of construction. Post–construction road condition surveys would be carried out for local roads used as a construction haulage route when use by construction vehicles ceases. Damage to the roads (and other infrastructure such as stock grids) that is attributed to the proposal would be addressed in consultation with the relevant roads authority and within three months of construction use concluding or as otherwise agreed with the relevant roads	All sealed local roads (within the vicinity or 200 m of the proposal) and/or all unsealed roads on haulage routes.	Section 6.1	Dilapidation surveys will be undertaken in accordance with condition C34 and this RMM. If the dilapidation surveys identify that a sealed local road (within 200m of the project) or unsealed roads on access (haulage) routes have been damaged during construction, upgrading or decommissioning works, and that damage is attributable to the project, the identified damage will be repaired within three months of construction use concluding. A road condition monitoring and maintenance program will be developed in consultation with the relevant roads authority for all local roads used

Reference	Revised mitigation measures	Applicable location(s)	Where addressed	How addressed
	authority. Roads would be reinstated to equivalent or better condition.			as construction access routes and implemented for the duration of construction.
TA8	Actions to ensure that existing road structures proposed to be used during construction are suitable for the proposed use would be investigated and implemented where required. These would include: • while establishing access tracks, a suitably qualified engineer would assess the existing structures for suitability considering structure type, condition, vehicle types, loading and frequency of use • if structures are deemed unsuitable, the following alternatives would be considered and implemented where practicable and appropriate: – alternative routes (access via easement) – alternative vehicle types (smaller loads) – temporary works (e.g. propping, or similar) in consultation with asset owners. Any damage to road structures caused by proposal– related heavy vehicle usage would be rectified at the conclusion of use.	Existing bridge and drainage/ culvert assets	Section 3.7	The majority of bridges are located on State and regional roads have been classified to be utilised for certain vehicle types with specific load limits. It is therefore acknowledged that the restricted access vehicle and OSOM vehicles are able to traverse these bridges. Access tracks are not being established as part of Stage 1 works.
TA9	A Community Communications Strategy would be developed and implemented to manage communications in order to engage and notify local communities of major works that could disrupt the road network. The Community Communication Strategy would be developed in conjunction with the Traffic and Transport Management sub–plan to detail the methodology, frequency and response measures in relaying information to the community and for addressing community concerns. All affected communities would be notified in advance of any disruptions to the transport network. This may be in the form of variable message signs, website notices, public notices in local publications and personal correspondence.	All locations	Section 1.7.2 *Community Communications Strategy* (45860-HSE-DOC-D-0024)	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.

Reference	Revised mitigation measures	Applicable location(s)	Where addressed	How addressed
TA10	Road Occupancy Licence(s) would be sought for all temporary lane closures (as required) by the relevant roads authority). Associated activities within the road reserve would occur in accordance with the relevant licences. Any road closures with significant impact, such as short– term full road closure and long–term temporary lane/road closures would be assessed on a case–by– case basis, and approval sought from the relevant road authority. Where feasible, temporary road closures are to be planned outside of the traffic peak periods to minimise impact to the road network.	All roads that intersect with the transmission line alignment (for stringing of transmission lines) or on haulage routes.	Section 2.4.1 Table 6.2 - TT9 and TT12	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. Management measure TT9 and TT12 in Table 6.2 outline details on the ROLs and VMP.
TA11	Vehicle Movement Plans would be prepared as part of the Traffic and Transport Management sub–plan and implemented for all proposal heavy vehicle routes. The plans would identify the allowable heavy vehicle routes and include travel directions, permitted intersection turning movements, speeds, approved parking and lay– up areas, maximum allowable types/size of trucks and any traffic control required. The requirements of Vehicle Movement Plan would be communicated to all construction heavy vehicle drivers.	All roads on haulage routes, as identified in Table 4.4 of Technical paper 4.	Section 6.3.2 Section 6.3.3 Table 6.2 - TT9	Vehicle Movement Plans (VMP) will be implemented as outlined in Section 6.3.2. Section 6.3.3 outlines further details of the heavy vehicle access routes associated with construction. Management measure TT9 in Table 6.2 states that the VMP will be communicated to the drivers and support the permit applications.
TA12	Significant traffic generating developments in the vicinity of the proposal would be identified. Consultation would occur with those developments and the relevant roads authority regarding proposal-related vehicle movements and road works. Measures to address any potentially significant cumulative traffic and access impacts would be identified and implemented.	All locations	Section 6.5	Section 6.5 describes the scheduling measures to limit cumulative impacts on the road network and motorists.
TA13	The appointed Construction Contractor would coordinate and appropriately manage movements on the alternative route options and communicate the changes to the affected residents and the council as part of the communication process of the Traffic and Transport Management sub–plan. This would be implemented should local road closures be required and alternative route provided.	Local roads as identified in Table 4.4 of Technical paper 4.	Table 6.2 - TT17	Management measure TT17 in Table 6.2 states that the VMP will be communicated to the drivers and support the permit applications.

Reference	Revised mitigation measures	Applicable location(s)	Where addressed	How addressed
TA14	A Fatigue Management Plan would be developed and implemented for proposal that addresses driver fatigue and associated regulatory requirements. This plan is to be implemented during construction.	All roads on haulage routes, as identified in Table 4.4 of Technical paper 4.	Appendix A	The DCC in Appendix A describes driver's obligations including the management of fatigue. Fatigue will also be managed in accordance with the *Driving and Journey Management Work Instruction* (45860-HSE-WI-G-0041).
TA15	Road and surface conditions and the traffic controls implemented at each proposal site access/egress point from the sealed road network would be monitored during construction. Any identified issues would be rectified.	Access/egress points to access tracks and the main construction compound and accommodation camps	Table 6.2 - TT4	Management measure TT4 in Table 6.2 states road and surface conditions and the traffic controls implemented at the access point from the sealed road network, will be monitored during construction.
TA16	Existing connections to the public road network would be considered for use when access to construction locations via private land is required. Existing site access points would be used for construction access where feasible and reasonable and in consultation with the relevant landholder. Consultation with the relevant roads authority would occur for all new site access points.	Access/egress points to access tracks	Section 6.2.1	Section 6.2.1 outlines that existing connections will be utilised wherever feasible and reasonable. Consultation will occur with the relevant landholder and roads authority.
TA17	Temporary access points within the road reserve that are not required for operational reasons would be removed and restored in consultation with the relevant roads authority following the completion of construction.	Access/egress points to access tracks	Table 6.2 – TT26	Management measure, TT26 in Table 6.2 states temporary access points within the road reserve, not required for operational reasons, will be removed and restored in consultation with the relevant roads authority.
LP6	Procedures would be implemented so that potential impacts or conflicts between livestock and construction activities are appropriately managed. Procedures would be developed in consultation with affected landholders and would include management of: • … • vehicle movements and other activities within the vicinity of livestock • …	Transmission line	Table 6.2 - TT6 NVMP	Procedures will be developed in consultation with affected landholders to include vehicle movements and other activities within the vicinity of livestock.

Reference	Revised mitigation measures	Applicable location(s)	Where addressed	How addressed
HF2	Detailed construction planning would consider flood risk at construction areas. This would include: • identifying measures that would be implemented to not worsen flood impacts downstream and on other property and infrastructure during construction up to and including the five per cent AEP design flood event, and • confirming site layouts to avoid or minimise obstruction of overland flow paths and to limit the extent of flow diversion required. Practicable measures identified to minimise potential flood risks at construction areas would be implemented.	Transmission lines and construction sites within flood prone land	Appendix B SWMP	The FRP in Appendix B describes flood emergency management procedures. Further detail refer to the *Soil and Water Management Plan* (SWMP)(45860-HSE-PL-D-0112*)*.
HR13	Dangerous goods and hazardous substances would 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, 2018).*	All locations	Section 6.8 Table 6.2 – TT46	Section 6.8 and management measure TT46 in Table 6.2 outlines the measures to transport dangerous good and hazardous substances.
CI1	Consultation with relevant roads authority would occur in relation to road use.	All locations	Section 1.7	This TTMP will be provided to TfNSW and the relevant councils for consultation. The outcomes of consultation will be incorporated throughout the TTMP where appropriate.

2.4 Licences and permits

2.4.1 Road occupancy licence

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 access permit

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);
- *Transport of Dangerous Goods by Road and Rail*, Edition 7.7 (National Transport Commission, 2020); and
- *Towards Zero* – Safe System 2016.

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 1 of the project. The key reference documents include:

- Section 19 and Technical Paper 11 of the EIS; and
- Amendment Report.

The EIS and Amendment Report referred to the roads proposed for use as 'haulage routes', however the Infrastructure Approval applies the term 'access routes'. Therefore a primary haulage route within the EIS is referred to as a primary access route within the Infrastructure Approval. For the purpose of consistency with the Infrastructure Approval, roads proposed for use will termed 'access routes'.

3.1 Local, State and National Roads

The existing road network consists of a combination of national, State, regional and local roads. The State roads within the project area for Stage 1 are detailed in Table 3.1.

3.1.1 State roads

Table 3.1 - State roads used for the delivery of Stage 1

Name	Description	Access road type	Authority
Sturt Highway (A20) (Buronga)	Sealed	Primary	TfNSW
Sturt Highway (between Buronga and Robinvale)	Sealed	Primary	TfNSW
Sturt Highway (between Robinvale and Balranald)	Sealed	Primary	TfNSW
Sturt Highway (between Balranald and Cobb Highway)	Sealed	Primary	TfNSW
Sturt Highway (between Cobb Highway and Newell Highway)	Sealed	Primary	TfNSW
Sturt Highway (within Murrumbidgee LGA)	Sealed	Primary	TfNSW
Sturt Highway (east of Wagga Wagga)	Sealed	Primary	TfNSW
Sturt Highway (between Olympic Highway and Wagga Wagga)	Sealed	Primary	TfNSW
Sturt Highway (between Newell Highway and Olympic Highway)	Sealed	Primary	TfNSW
Silver City Highway (B79)	Sealed	Primary	TfNSW
Yanga Way (which includes Balranald-Swan Hill Road)	Sealed	Primary	TfNSW
Cobb Highway	Sealed	Primary	TfNSW
Cobb Highway (south of Deniliquin) (including Hay Road)	Sealed	Primary	TfNSW
Kidman Way (near Morundah Road)	Sealed	Primary	TfNSW
Kidman Way (near Sturt Highway)	Sealed	Primary	TfNSW
Olympic Highway (between Urana Street In The Rock and Yarrangundry Street in Uranquinty)	Sealed	Primary	TfNSW
Olympic Highway (between Sturt Highway and Yarrangundry Street in Uranquinty)	Sealed	Primary	TfNSW
Jerilderie Street (Jerilderie) (part of Newell Highway)	Sealed	Primary	TfNSW
Newell Highway (north of Jerilderie)	Sealed	Primary	TfNSW

3.1.2 Regional roads

The regional roads within the project area for Stage 1 are detailed in Table 3.2.

Table 3.2 - Regional roads used for the delivery of Stage 1

Name	Description	Access road type	Authority
Arumpo Road	Sealed	Primary	Wentworth LGA
Conargo Road (in Conargo)	Sealed	Primary	Edward River LGA
Conargo Road (near Sturt Highway)	Sealed	Secondary	Edward River LGA
Balranald Road (near Moulamein)	Sealed	Primary	Balranald LGA
Maude Road	Sealed/unsealed	Secondary	Hay LGA Murray River LGA Edward River LGA
Lockhart Road (west of Bullenbong Creek)	Sealed	Secondary	Lockhart LGA / Wagga Wagga City Council (WWCC)
Lockhart Collingullie Road	Sealed	Primary	Lockhart LGA
Holbrook Road	Sealed	Secondary	Wagga Wagga LGA
The Rock-Collingullie Road	Sealed	Secondary	Lockhart LGA / WWCC
East Street	Sealed	Primary	Lockhart LGA
Reid Street	Sealed	Primary	Lockhart LGA
Urana-Lockhart Road	Sealed	Primary	Lockhart LGA
Brookong Creek Road	Sealed	Primary	Lockhart LGA
William Street	Sealed	Primary	Federation LGA
Chapman Street	Sealed	Primary	Federation LGA
Cocketgedong Road	Sealed	Primary	Federation LGA
Tallow Street	Sealed	Primary	Murray River LGA
Urana Street	Sealed	Secondary	Edward River LGA
Green Street	Sealed	Secondary	Lockhart LGA
Lockhart-Kywong Road	Sealed	Secondary	Lockhart LGA
Kyalite Road	Sealed	Secondary	Murray River LGA

3.1.3 Local roads

The local roads within the project area for Stage 1 are detailed in Table 3.3.

Table 3.3 - Local roads used for the delivery of Stage 1

Name	Description	Access road type	Authority
Balranald Road (south of alignment)	Sealed/unsealed	Secondary	Murray River LGA
Balranald Road (north of alignment)	Sealed/unsealed	Secondary	Murray River LGA
Booroorban-Tchelery Road	Sealed	Secondary	Edward River LGA
North Boundary Road	Sealed	Primary	Edward River LGA
Willurah Road	Sealed	Secondary	Edward River LGA
East-West Road	Unsealed	Secondary	Edward River LGA
Warwillah Road	Unsealed	Secondary	Edward River LGA

Name	Description	Access road type	Authority
Wandook Road	Sealed	Primary	Edward River LGA
Bullenburg The Rock Road	Sealed	Primary	Lockhart LGA
County Boundary Road	Sealed	Secondary	Lockhart LGA
Ashfords Road	Sealed	Primary	Wagga Wagga LGA
Boiling Down Road	Unsealed	Primary	Wagga Wagga LGA
Elizabeth Avenue (Sturt Highway to Inglewood Road)	Sealed	Primary	Wagga Wagga LGA
Elizabeth Avenue (Inglewood Road to Gregadoo East Road*)	Sealed	Secondary	Wagga Wagga LGA
Plumpton Road	Sealed	Primary	Wagga Wagga LGA
Mitchell Road	Sealed	Primary	Wagga Wagga LGA
Bakers Lane	Sealed	Primary	Wagga Wagga LGA
McCabe Street	Sealed	Primary	Balranald LGA
Church Street	Sealed	Primary	Balranald LGA
Cadell Road	Sealed	Secondary	Murrumbidgee LGA
Four Corners Road	Sealed	Primary	Murrumbidgee LGA
Rohans Road	Sealed	Water	Wagga Wagga LGA
The Rock-Narrandera Road	Unsealed	Water	Wagga Wagga LGA
Lockhart The Rock Road	Sealed	Secondary	Lockhart LGA
Inglewood Road	Sealed	Primary	Wagga Wagga LGA
Gregadoo East Road	Sealed	Primary	Wagga Wagga LGA
Pump Station Lane*	Unsealed	Water	Murrumbidgee LGA
Bundure Road	Sealed/Unsealed	Secondary	Murrumbidgee LGA
Corbett Avenue	Sealed	Water	Wentworth LGA
Alcheringa Road	Sealed	Water	Wentworth LGA
Modica Crescent	Sealed	Water	Wentworth LGA
Cedar Ave	Sealed	Primary	Edward River LGA
Windomal Road	Sealed	Secondary	Balranald LGA
Lockhart Boree Creek Road	Sealed	Secondary	Lockhart LGA
Lockhart-Kywong Road	Sealed	Secondary	Lockhart LGA
Drummond Street	Sealed	Secondary	Federation LGA
Eades Street	Sealed	Secondary	Federation LGA
Richmond Street	Sealed	Secondary	Federation LGA
Lang Street*	Sealed	Secondary	Edward River LGA
* Additional roads that are not part of the approved construction access routes as identified in Appendix 3 of the Infrastructure Approval. Refer to Section 5.2 for further details.			

3.2 Existing traffic volumes

Technical Paper 11 (Traffic and transport impact assessment) provides the traffic volume data of the key roads identified for Stage 1. Table 3.4 provides a summary of the existing daily traffic volumes, peak hourly traffic estimates and capacity of the existing roads used for Stage 1 works.

Table 3.4 - Summary of existing road information

Name	Access road type	Daily traffic volume (vehicles per day)	Peak hourly traffic estimates
State			
Sturt Highway (A20) (Buronga)	Primary	TfNSW Traffic Counter from Western EIS	200
Sturt Highway (between Buronga and Robinvale)	Primary	Western EIS	50
Sturt Highway (between Robinvale and Balranald)	Primary	Yes – Traffic counts available.	50
Sturt Highway (between Balranald and Cobb Highway)	Primary	Yes – TfNSW Traffic Counter, Station ID –T0234	50
Sturt Highway (between Cobb Highway and Newell Highway)	Primary	Yes – TfNSW Traffic Counter, Station ID –95021	50
Sturt Highway (within Murrumbidgee LGA)	Primary	N/A (estimated)	100
Sturt Highway (east of Wagga Wagga)	Primary	Yes – TfNSW Traffic Counter, Station ID –95062	350
Sturt Highway (between Olympic Highway and Wagga Wagga)	Primary	Yes – TfNSW Traffic Counter, Station ID –95064	200
Sturt Highway (between Newell Highway and Olympic Highway)	Primary	Yes – TfNSW Traffic Counter, Station ID –95064	200
Silver City Highway (B79)	Primary	TfNSW Traffic Counter from Western EIS	200
Yanga Way (which includes Balranald-Swan Hill Road)	Primary	Yes – TfNSW Traffic Counter, Station ID –97494	20
Cobb Highway	Primary	Yes – TfNSW Traffic Counter, Station ID –97234	10
Cobb Highway (south of Deniliquin) (including Hay Road)	Primary	Yes – TfNSW Traffic Counter, Station ID –97042	50
Kidman Way (near Morundah Road)	Primary	Yes – TfNSW Traffic Counter, Station ID –97246	25
Kidman Way (near Sturt Highway)	Primary	Yes – TfNSW Traffic Counter, Station ID –97119	50
Olympic Highway (between Urana Street in the Rock and Yarrangundry Street in Uranquinty)	Primary	Yes – TfNSW Traffic Counter, Station ID –95551	125
Olympic Highway (between Sturt Highway and Yarrangundry Street in Uranquinty)	Primary	Yes – TfNSW Traffic Counter, Station ID –95065	150
Jerilderie Street (Jerilderie)	Primary	N/A (estimated)	50
Newell Highway (north of Jerilderie)	Primary	Yes – TfNSW Traffic Counter, Station ID – 97035	50
Regional			
Arumpo Road	Primary	TfNSW Traffic Counter from Western EIS	20
Conargo Road	Primary	N/A (estimated)	50
Conargo Road (near Sturt Highway)	Secondary	Yes – Traffic counts available	10
Balranald Road (near Moulamein)	Primary	N/A (estimated)	50
Maude Road	Secondary	Yes – Traffic surveyor counts available.	10

Name	Access road type	Daily traffic volume (vehicles per day)	Peak hourly traffic estimates
Lockhart Road (west of Bullenbong Creek)	Secondary	N/A (estimated)	100
Lockhart Collingullie Road	Primary	Yes – Traffic counts available	50
Holbrook Road	Secondary	Yes – TfNSW Traffic Counter, Station ID –95176	100
The Rock-Collingullie Road	Secondary	Yes – Traffic counts available.	50
East Street	Primary	N/A (estimated)	100
Reid Street	Primary (Table 3-2 of Appendix B of the Amendment Report)	Yes – TfNSW Traffic Counter, Station ID – 95336	20
Urana-Lockhart Road	Primary	Yes – TfNSW Traffic Counter, Station ID – 95336	20
Brookong Creek Road	Primary	Yes – TfNSW Traffic Counter, Station ID – 95211	50
William Street	Primary	N/A (estimated)	50
Chapman Street	Primary	N/A (estimated)	50
Cocketgedong Road	Primary	Yes – TfNSW Traffic Counter, Station ID – 95335	20
Tallow Street	Primary	N/A (estimated)	50
Urana Street	Secondary	Yes – TfNSW Traffic Counter, Station ID – 95208	20
Green Street	Secondary	N/A (estimated)	100
Lockhart-Kywong Road	Secondary	N/A (estimated)	50
Kyalite Road	Primary	N/A (estimated)	50
Local			
Balranald Road (south of alignment)	Secondary	N/A (estimated)	50
Balranald Road (north of alignment)	Secondary	N/A (estimated)	50
Booroorban-Tchelery Road	Secondary	N/A (estimated)	10
North Boundary Road	Primary	Yes – Traffic counts available.	10
Willurah Road	Secondary	N/A (estimated)	20
East-West Road	Secondary	N/A (estimated)	10
Warwillah Road	Secondary	N/A (estimated)	20
Wandook Road	Primary	N/A (estimated)	20
Bullenburg The Rock Road	Primary	Yes – Traffic counts available.	10
County Boundary Road	Secondary	N/A (estimated)	20
Ashfords Road	Primary	N/A (estimated)	20
Boiling Down Road	Primary	N/A (estimated)	10
Elizabeth Avenue (Sturt Highway to Inglewood Road)	Primary	N/A (estimated)	50

Name	Access road type	Daily traffic volume (vehicles per day)	Peak hourly traffic estimates
Elizabeth Avenue (Inglewood Road to Gregadoo East Road*)	Secondary	N/A (estimated)	10
Plumpton Road	Primary	N/A (estimated)	100
Mitchell Road	Primary	N/A (estimated)	100
Bakers Lane	Primary	N/A (estimated)	20
McCabe Street	Primary	N/A (estimated)	20
Church Street	Primary	N/A (estimated)	50
Cadell Road	Secondary	N/A (estimated)	20
Four Corners Road	Primary	Yes – Traffic counts available.	10
Rohans Road	Water	N/A (estimated)	20
The Rock-Narrandera Road	Water	N/A (estimated)	20
Lockhart The Rock Road	Secondary	N/A (estimated)	20
Inglewood Road	Primary (Table 3-2 of Appendix B of the Amendment Report)	N/A (estimated)	50
Gregadoo East Road	Primary	Yes – Traffic counts available.	50
Pump Station Lane*	Water	Not available	Not available
Bundure Road	Secondary	N/A (estimated)	20
Corbett Avenue	Water	N/A (estimated)	20
Alcheringa Drive[1]	Water	N/A (estimated)	3
Modica Crescent	Water	N/A (estimated)	10
Cedar Ave	Primary	N/A (estimated)	50
Windomal Road	Secondary	N/A (estimated)	50
Lockhart Boree Creek Road	Secondary	N/A (estimated)	50
Lockhart-Kywong Road	Secondary	N/A (estimated)	50
Drummond Street	Secondary	N/A (estimated)	50
Eades Street	Secondary	N/A (estimated)	50
Richmond Street	Secondary	N/A (estimated)	50
Lang Street*	Secondary	Not available	Not available

[1] Peak hour traffic volumes taken from Project EnergyConnect (NSW – Western Section) Traffic and Transport Management Plan Stage 2. 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 (for EnergyConnect (NSW – Western Section)).

* Additional roads that are not part of the approved construction access routes as identified in Appendix 3 of the Infrastructure Approval. Refer to Section 5.2 for further details.

3.3 Water supply points

Water would be supplied for the proposal from existing regulated sources. A number of indicative water supply points have been identified in the Table 6-5 of the EIS as potential location to supply

either potable or non-potable water for the project. The proposed water supply points for Stage 1 include the following:

- Church Street, Balranald, Balranald Shire Council (direct connection to Balranald accommodation camp);
- 111 Jerilderie Street, Murrumbidgee Council (access via Pump Station Lane, Jerilderie Street (Jerilderie) and Newell Highway (north of Jerilderie));
- Dinawan Stock & Domestic, Murrumbidgee Council (access via Bundure Road and Kidman Way)
- Bulgary (Rohans Road), Lockhart Shire Council (access via Rohans Road, The Rock-Narrandera Road and Lockhart Collingullie Road);
- Lockhart (Lockhart – the Rock Road), Lockhart Shire Council (access via Lockhart The Rock Road, East Street and Lockhart Collingullie Road);
- Lake Albert (Plumpton Road), Wagga Wagga City Council (access via Plumpton Road, Boiling Down Road, Ashfords Road and Mitchell Road);
- Ashfords Road, Wagga Wagga City Council;
- Dinawan Camp and Laydown, Murrumbidgee Council;
- 137 Cadell Road, Jerilderie, Murrumbidgee Council (access via Kidman Way and Cadell Road);
- 6204 Yanga Way, Yanga, Murray River Council (access via Balranald Road and Yanga Way);
- 812 Windomal Road, Balranald, Balranald Shire Council (access via Yanga Way, Balranald-Swan Hill Road, Sturt Highway and Windomal Road);
- 394 Hay Rd, Deniliquin, Edward River Council (access via Cobb Highway and Hay Road);
- 9 Lang Street, Wanganella, Edward River Council (access via Cobb Highway and Lang Street);
- 50 Elizabeth Avenue, Forest Hill, Wagga Wagga City Council (access via Ashfords Road, Mitchell Road, Inglewood Road and Elizabeth Avenue);
- 39 Urana Street, The Rock, Lockhart Shire Council (access via Olympic Highway and Urana Street);
- 2850 Lockhart the Rock Road, Tootool, Lockhart Shire Council (access via County Boundary Road and Lockhart the Rock Road);
- Old French Park-Bullenbong Road, French Park, Lockhart Shire Council (access via County Boundary Road and Lockhart the Rock Road);
- Richmond Street, Boree Creek, Federation Council (access via Lockhart Collingullie Road, Green Street, Lockhart-Kywong Road, Lockhart Boree Creek Road, Drummond Street, Eades Street, Richmond Street);
- Alcheringa Drive, Buronga, Wentworth Shire Council[1];
- Modica Crescent, Buronga, Wentworth Shire Council[1]; and
- Fletchers Lake Road, Dareton, Wentworth Shire Council[1].

[1] These water supply points have been included in Project EnergyConnect (NSW - Western Section) Construction Environmental Management Plan and the associated CEMP Sub-plans and will continue to be used for Project EnergyConnect (NSW – Eastern Section).

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-0112*)*.

3.4 Heavy vehicle route restriction

The heavy vehicle restrictions on the access routes are outlined in Section 4.2 and illustrated in Figure 4-3 of Technical Paper 11 (Traffic and Transport Impact Assessment).

Vehicles known as General Access Vehicles (GAV) which comply with mass and dimension requirements do not require a notice or permit to operate on the road network. Heavy vehicles other than GAV are subject to road network restrictions according to the vehicle types:

- restricted access vehicles (RAV) (i.e. 19m, 23m and 25/26m B-doubles);
- road trains (Type 1 A-double, modular B-triple, B-triple, AB-triple and Type 2 A-triple); and
- over size and over mass (OSOM) vehicles, which are defined as a vehicle (or vehicle combination) that exceeds any general access mass or dimension limits.

Several state roads that would be utilised as access routes are part of the existing approved RAV, road train and OSOM network. The abovementioned heavy vehicles do not require a notice or permit to access this approved road network. These include Sturt Highway (A20) between Buronga and Wagga Wagga, Yanga Way and Kidman Way. Along the access routes, some state roads such as Cobb Highway and Newell Highway as well as regional roads provide approved access for certain types of heavy vehicles. Most local roads along access routes are not part of the existing approved RAV, road train and OSOM network.

3.5 Public transport

Buses provide the primary public transport service in the towns in the project area. Coach services are available for Buronga, Euston, Balranald, Hay, Urana, Lockhart and Wagga Wagga. These form part of TfNSW's Regional Train and Coaches Network which generally runs an infrequent return trip once daily or for several times a week only.

The Wagga Wagga LGA itself is generally well serviced by local bus network operated by Busabout, other local private bus operators including Junee Buses (providing services to Junee, north-east of Wagga Wagga) and Allens Coaches providing services for schools. School bus services exist between Wagga Wagga and Coolamon, Gainmain, Flowerdale, Marrar, Methul, Tooyal, Lockhart, Currawarna on school days only.

Bus services would not experience any delays on the access routes given negligible adverse impact identified from the road network performance review. All existing bus zone and bus stop facilities would unlikely require any modifications such as bus stop relocations.

3.6 Regional rail services

The project crosses the following active railway lines, according to the TfNSW, NSW Public Level Crossing Finder:

- Main Southern Railway operated by ARTC (operational railway line), approximately three kilometres southwest of Uranquinty;
- the Rock Oakland Railway operated by John Holland CRN (operational railway line), approximately two kilometres southeast of Lockhart;
- the Rock Oakland Railway operated by John Holland CRN (non-operational railway line), approximately nine kilometres northeast of Urana;
- Narrandera Tocumwal Railway operated by John Holland CRN (non-operational railway line), near intersection of Colombo Road and Crutchs Road, Bundure; and
- Moama Balranald Railway operated by VLine (operational railway line), approximately 25 kilometres southeast of Balranald.

3.7 Bridges and culverts

Bridges and culverts have been identified on the access routes. The majority of bridges are located on state and regional roads that have been classified to be utilised for certain vehicle types with specific load limits. It is therefore acknowledged that the restricted access vehicle and OSOM vehicles are able to traverse these bridges.

Preliminary engagement has been completed with councils in relation to bridge and culvert load limits and these have been considered in the EIS.

3.8 Active transport

The construction activities are anticipated to have limited interactions with pedestrians and cyclists, with only limited active transport infrastructure within the study area. This potential interaction occurs when the access route forms part of the main street through the town. The impacts from these additional construction traffic movements are considered minor given the low number of movements and the off-road active transport facilities enabling separation between vehicles and pedestrians/cyclists.

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 heavy and light vehicle movements on the access routes that would range between three and 91 vehicles per hour in one direction;
- increase in traffic on surrounding roads that are not access routes due to overall increase in access into the town(s) with workers;
- transport of heavy, oversize and overmass vehicles;
- acceleration and deceleration of heavy vehicles; and
- increase of oversize and overmass vehicles.

4.2 Impacts

Potential traffic and transport impacts attributable to Stage 1 works might include:

- increased heavy vehicle volumes and associated impacts, including road deterioration and impacts to motorists;
- potential interaction with pedestrians and cyclists when the haulage route forms part of the main street through the town;
- regional rail activities;
- 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 access routes (heavy and light vehicles)

Construction heavy vehicle movements will be required for a variety of activities (i.e. earthworks, clearing and grubbing activities). All heavy and light vehicles associated with the development will travel via the access routes outlined in Section 3.1, as identified in Appendix 3 of the Infrastructure Approval. The primary access routes, secondary access routes and water supply routes are the access routes for Stage 1 works. These routes will be used by both general construction traffic and for heavy vehicle access.

5.2 Additional construction access routes

Table 5.1 outlines the additional construction access routes that were identified as being required by the project. These access routes are listed in the table below and are additional to the routes described in the EIS and Appendix 3 of the Infrastructure Approval.

In accordance with condition C32, all heavy and light vehicles must travel to and from the site via the Primary Access Routes, Secondary Access Routes and Water Supply Routes as described in the EIS and identified in Appendix 3, unless the Planning Secretary agrees otherwise.

The project is therefore required to seek the Planning Secretary's agreement for the use of any additional construction access routes. The information within Table 5.1 has been included within the TTMP to both identify these additional access routes and seek the Planning Secretary's agreement for the use of these roads.

Table 5.1 - Additional construction access routes

Name	Description	Access route type	NSW Road Network Classification	Road authority	Reason for use
Pump Station Lane	Unsealed	Water	Local	Murrumbidgee Council	Proposed for use as access to an approved water supply point (111 Jerilderie Street)
Lang Street	Sealed	Water	Local	Edward River Council	Proposed for use as access to an approved water supply point (9 Lang Street, Wanganella)
Elizabeth Avenue (between Inglewood Road and Gregadoo East Road)	Sealed	Primary	Local	Wagga Wagga City Council	Elizabeth Avenue is already approved as a primary access route between Sturt Highway and Inglewood Road, however Wagga Wagga City Council has requested that the project include the section between Inglewood Road and Gregadoo East Road as a secondary access route that can be used if required during construction work on Bakers Lane and Mitchell Road that council plans to carry out this financial year. Noting that this section of Elizabeth Avenue is not an approved project route, the project would not use the additional section until the Planning Secretary has agreed to its use, as required by condition C32, and all necessary additional assessments and consultation regarding its use are complete.

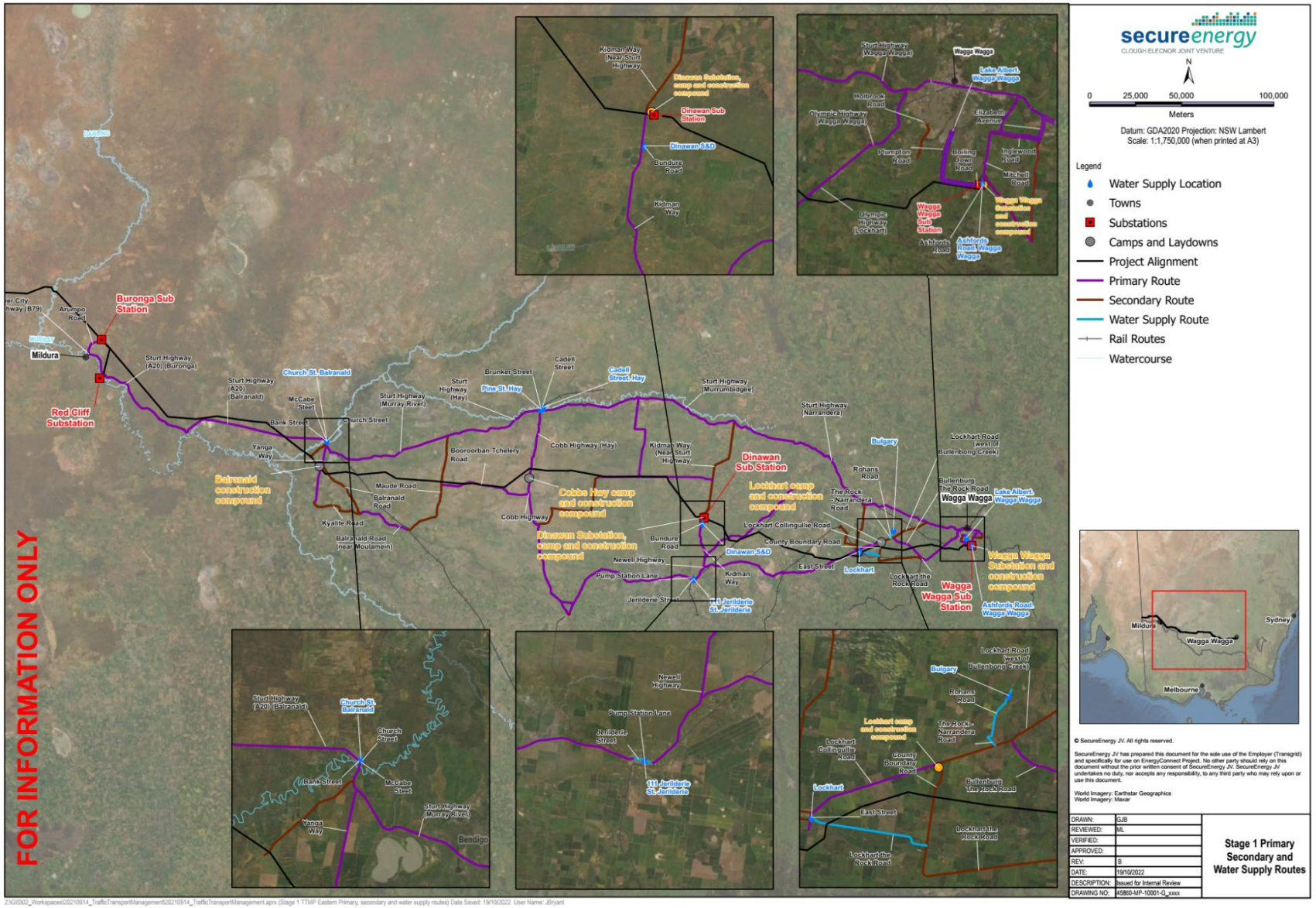


Figure 5.1 - Primary, secondary and water supply routes for Stage 1

5.3 Construction access routes (oversize vehicle movements)

All over-dimensional vehicles associated with the development will only travel via the primary and secondary access routes described in the EIS, unless the Planning Secretary agrees otherwise. Any of the long distance haul routes will be subject to permits granted by NHVR and will be assessed accordingly.

Oversize Overmass vehicles would only travel to the Dinawan substation site from the potential ports of origin (Newcastle, Port Kembla, Melbourne or Adelaide). The OSOM vehicles would travel using primary access routes along OSOM-approved roads (within NSW) to access the Dinawan substation site via Kidman Way.

It is not expected that OSOM deliveries would be required to the Wagga Wagga substation. In the event that the Wagga Wagga substation site requires a delivery requiring an OSOM load carrying vehicle, the appropriate approvals would be sought at that point in time.

5.4 Construction worker parking

During the construction phase and following establishment of the accommodation camps and compounds, it is expected that workers will typically be based within the accommodation camps and will park within the respective main construction compounds or substation area. Construction workers may travel to the site locally from the surrounding towns.

5.5 Construction shuttle bus service

During the Stage 1 construction phase, a dedicated employee shuttle bus service will be utilised to transfer workers to and from the Mildura and Wagga Wagga airports and the accommodation camp (following establishment of the accommodation camp).

Workers that require aviation transportation will be flown into Mildura and Wagga Wagga airports. Workers will be picked-up from the arrival terminal of the airport and dropped-off at the appropriate 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 as much as possible. The shuttle bus may require the use of local roads such as roads to access the airport terminal.

5.6 Construction compound and accommodation camp site access

The six main construction compound and accommodation camp sites, from west to east are detailed in Table 5.2.

Table 5.2 - Proposed construction compound and accommodation camp site location

Location	Proposed works
Buronga construction compound and accommodation camp site	A combined accommodation camp and construction compound located on Arumpo Road adjacent to the existing Buronga substation. An access point (Basic Right Turn and Basic Left Turn) has been constructed from Arumpo Road directly to the Buronga main construction compound and accommodation camp as part of the approved EnergyConnect (NSW – Western Section). This access point will also be used by construction vehicles supporting Stage 1 works for Eastern.
Balranald construction compound	The main construction compound would be located on Yanga Way and has an existing access point (Basic Right Turn and Basic Left Turn).
Cobb Highway construction compound and accommodation camp	This combined site is located on Cobb Highway within the Edward River Council local government area. This would require the construction of an access point, directly from the highway road shoulder (which currently comprises of minor shrubbery vegetation) to the new construction compound site.
Dinawan substation construction compound and accommodation camp	This would require the construction of an access point, directly from the highway road shoulder (which currently comprises of minor shrubbery vegetation) to the new construction compound site.

Location	Proposed works
Lockhart construction compound and accommodation camp	A combined site is located to the northeast of Lockhart on County Boundary Road, where there is an existing access point Channelised Left Turn and Channelised Right Turn to this site.
Wagga Wagga construction compound	This would require the construction of an access point, directly from the road shoulder (which currently comprises of minor shrubbery vegetation) to the new construction compound site.

The construction compounds and accommodation camp sites have been selected to be located near a sealed main road to facilitate journeys to worksites, airports, local services and amenities. Suitably sized and located temporary access points off the adjacent roadways would be required for each of these main construction compound and accommodation camp sites.

Figure 5.2 to Figure 5.6 provide diagrams of the general location of the access points to Balranald construction compound, Cobb Highway construction compound and accommodation camp, Dinawan substation, construction compound and accommodation camp, the Lockhart construction compound and accommodation camp and Wagga Wagga construction compound.

The access point design will be developed in consultation with the relevant road authority. Refer to Section 6.2 for further details on the access point design.

There may be instances where refinements or changes to the location of the access points will be required, especially throughout the detailed design phase. The indicative location of the access points provided in the figures below are therefore subject to further refinement as design progresses. SecureEnergy will communicate to the relevant road authority when there are proposed changes to the location and/or access point design.

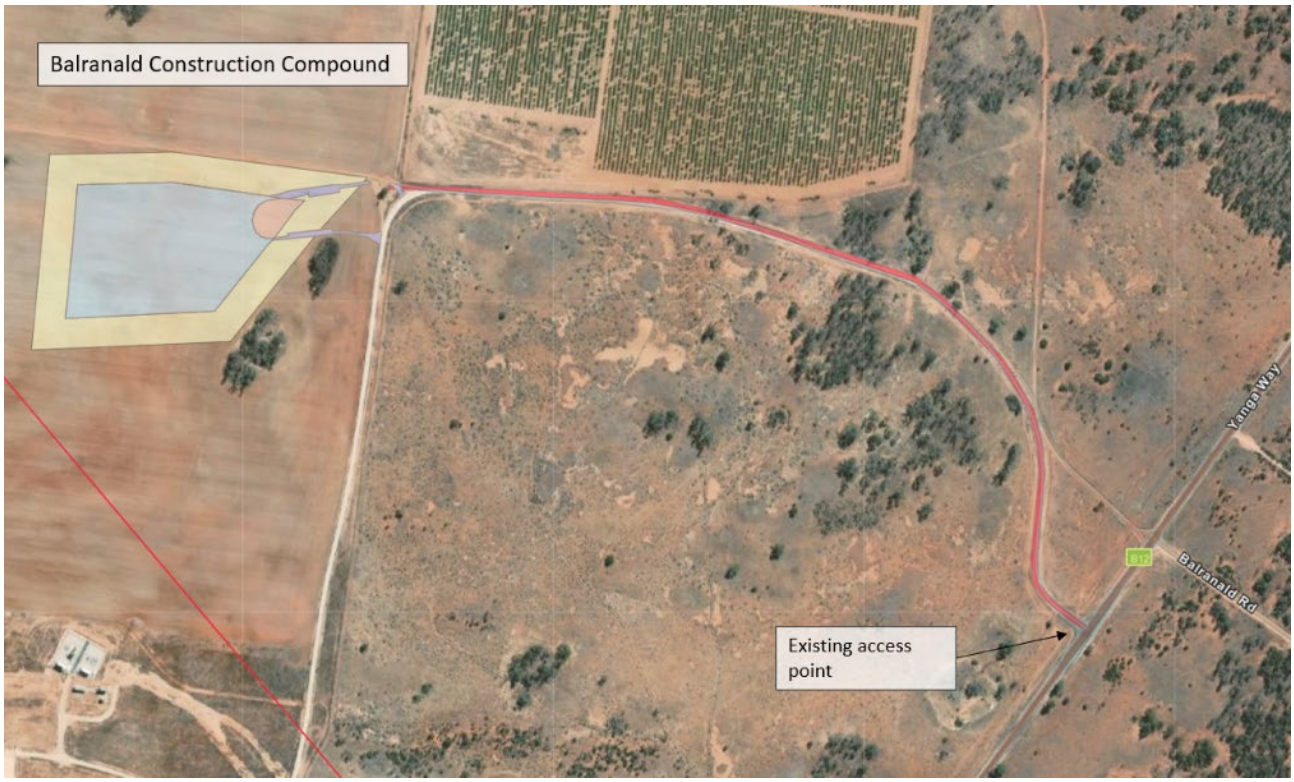


Figure 5.2 - Existing access point to Balranald construction compound

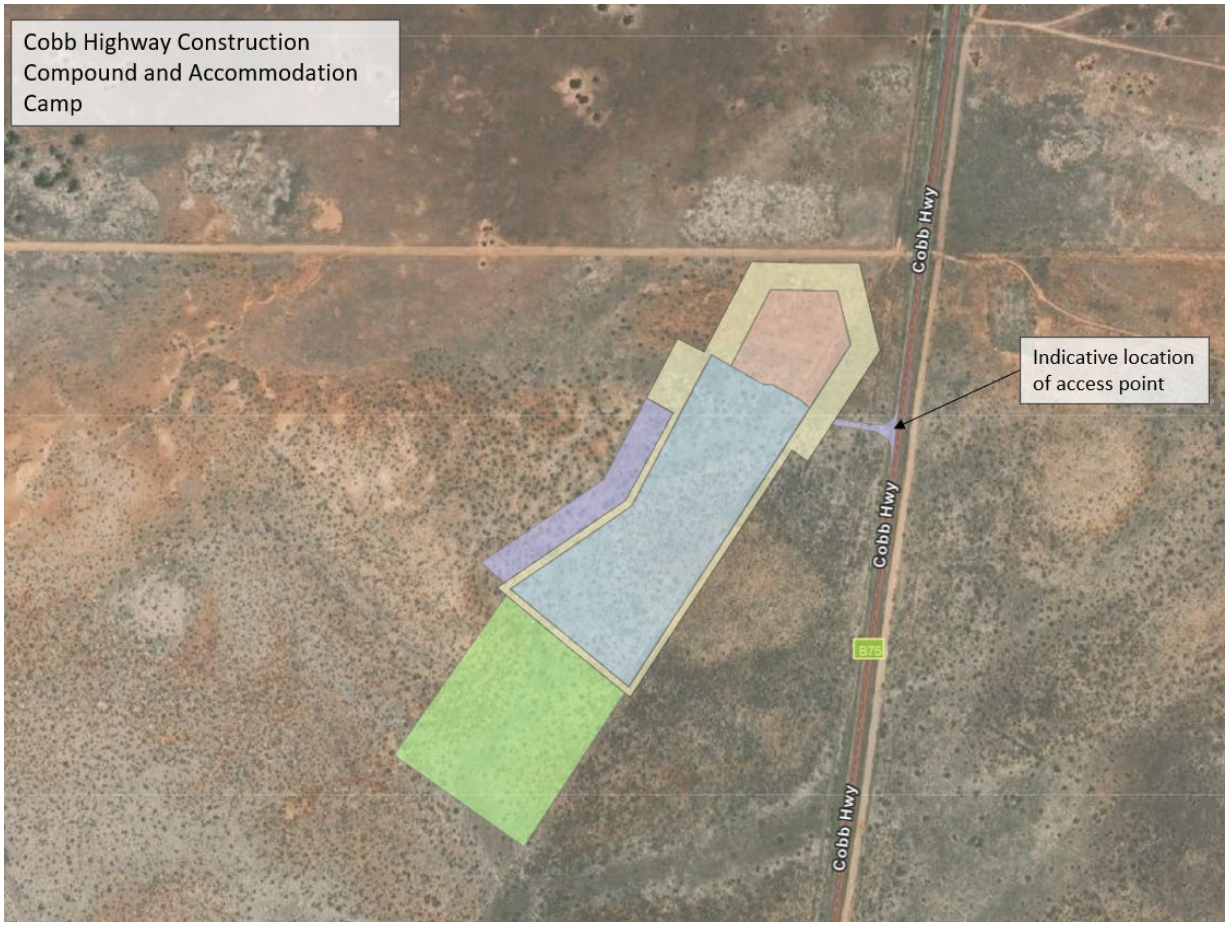


Figure 5.3 - Indicative access point to Cobb Highway construction compound and accommodation camp

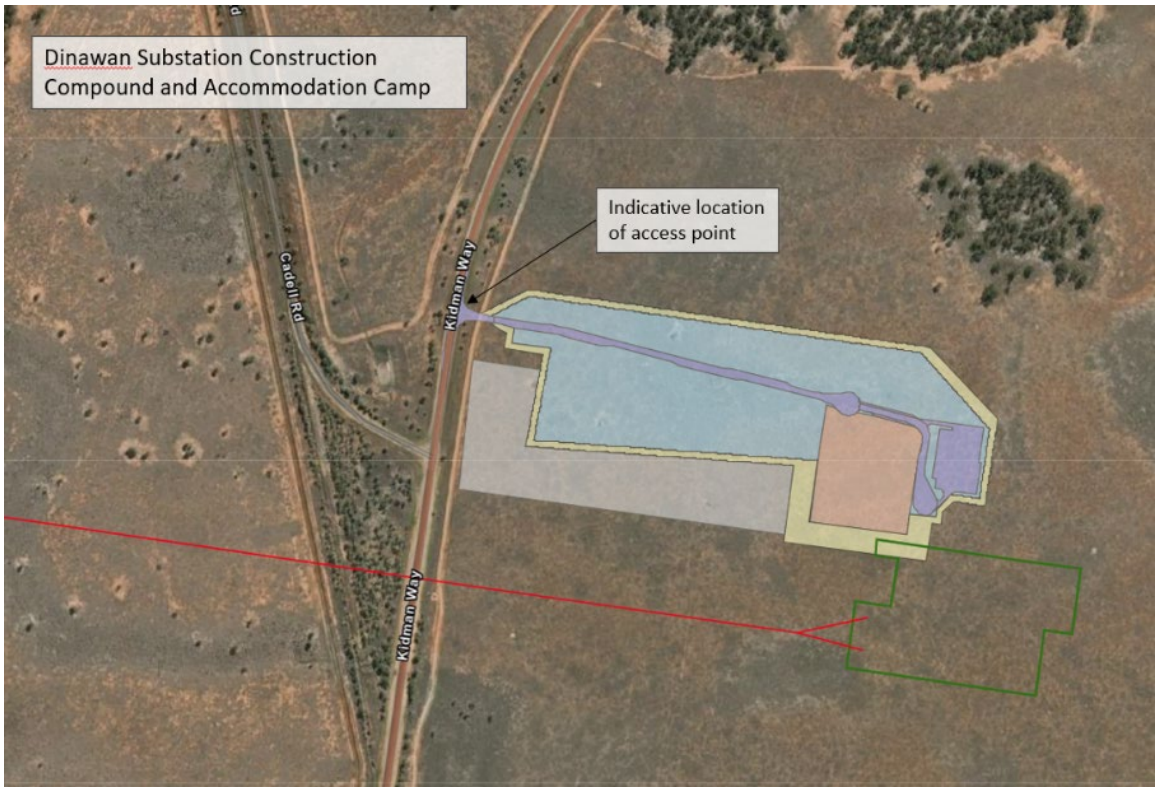


Figure 5.4 - Indicative access point to Dinawan substation, construction compound and accommodation camp

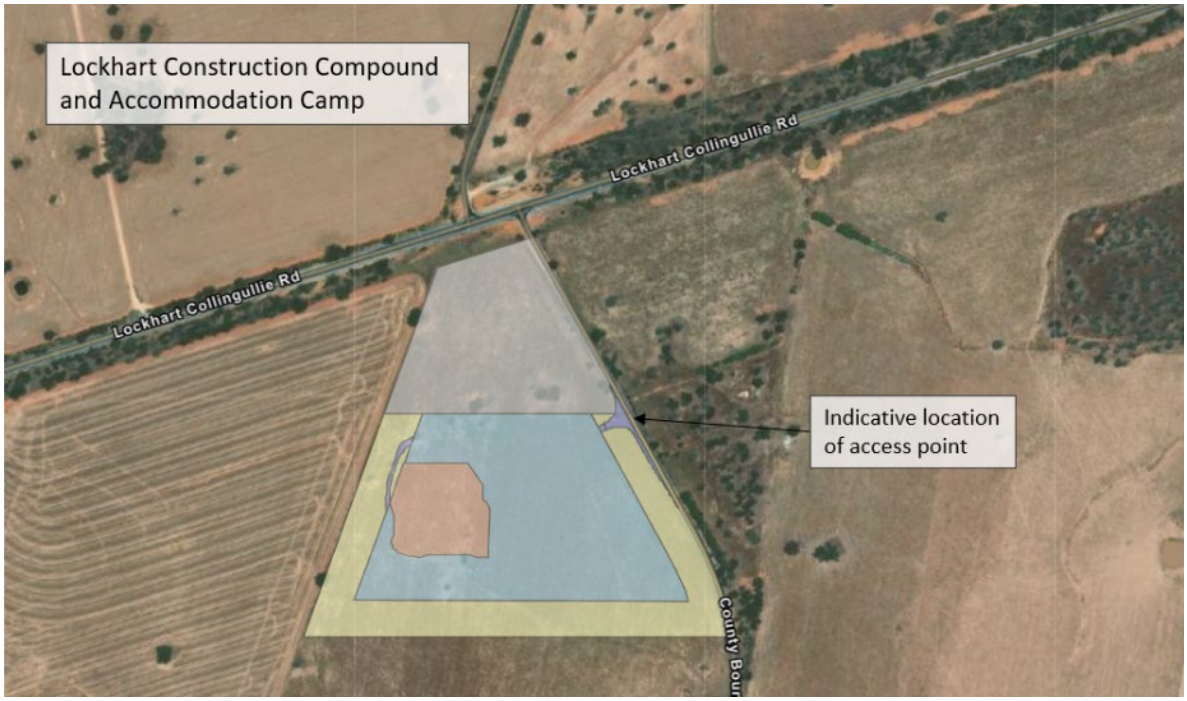


Figure 5.5 - Indicative access point to Lockhart construction compound and accommodation camp

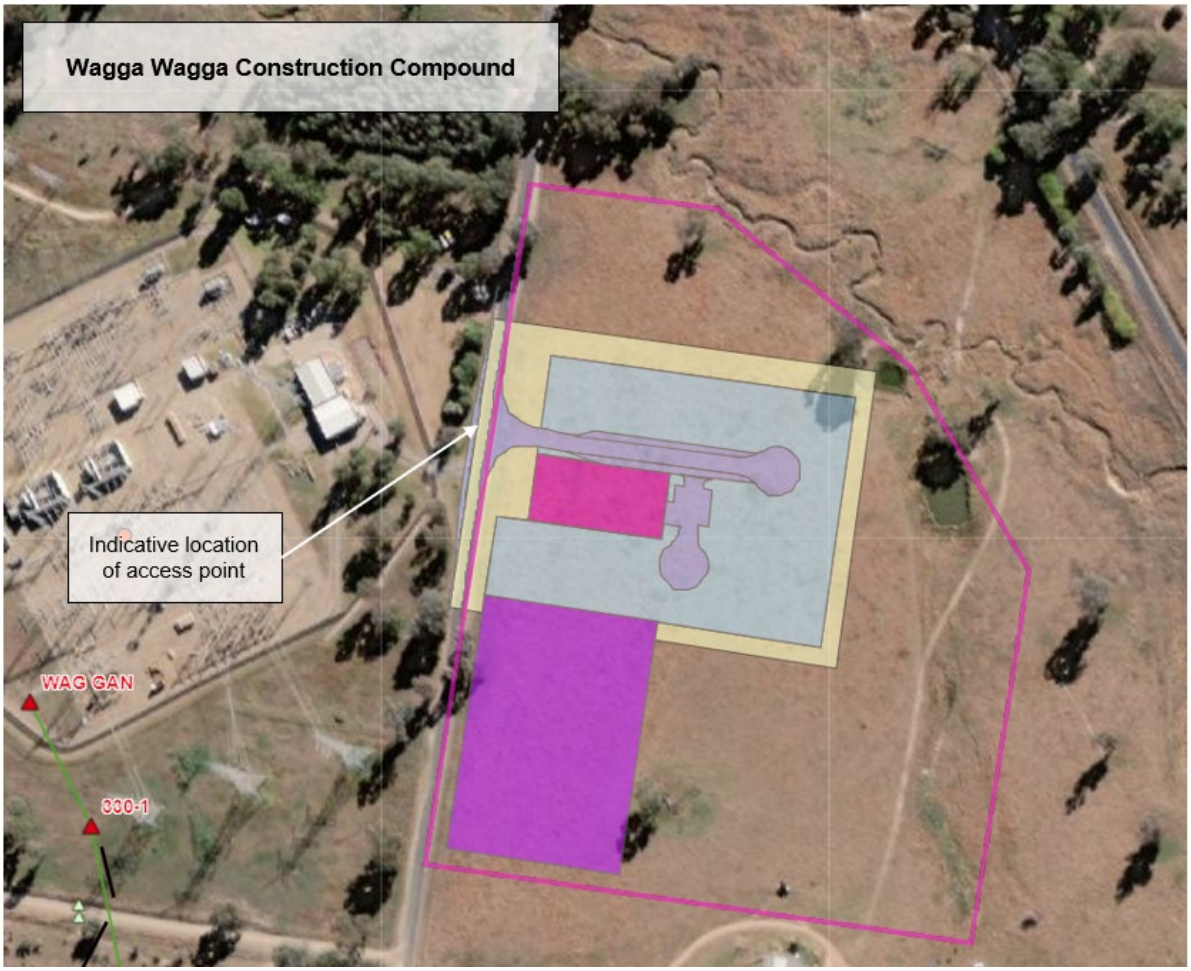


Figure 5.6 - Indicative access point to Wagga Wagga construction compound

5.7 Water supply point access

Access points are proposed at several water supply locations. The access point will mainly consist of gravel looped access tracks with connection to the existing road pavement to allow trucks to access the water supply point. The water supply points are identified in Section 3.3.

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 6.2 will be applied.

6.1 Dilapidation surveys

Independent dilapidation surveys will be undertaken in accordance with condition C34 and RMM TA7. The dilapidation surveys will be undertaken in consultation with the relevant roads authorities.

Dilapidation surveys will be undertaken for portions of the local road network, listed in Table 3.1 to Table 3.3, that will be used by the project during the construction phase. 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).

Dilapidation surveys will be undertaken on an annual basis during construction. Also, within one month of the completion of any construction, upgrading or decommissioning 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 by the development 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.

6.2 Road upgrades

The definition of construction within the Infrastructure Approval excludes road upgrades. Road upgrade works are, however, incorporated within this TTMP as required by condition C35 b).

Unless the Planning Secretary agrees otherwise, the road upgrades as identified in Appendix 3 of the Infrastructure Approval, will be implemented to the relevant standard and timing requirements as identified in Appendix 3 and to the satisfaction of the relevant roads authority.

Appendix 3 of the Infrastructure Approval noted that the number, location and type of minor access point intersections will be confirmed in the Traffic and Transport Management Plan (this plan). The list of the road upgrades identified in Appendix 3 of the Infrastructure Approval that enable Stage 1 works are outlined Table 6.1.

Table 6.1 - Road upgrades

Location	Road	Intersection treatment	Timing	Road authority
Cobb Highway construction compound and accommodation camp	Cobb Highway	Basic Right Turn and Basic Left Turn	Prior to commencing construction of the Cobb Highway construction compound and accommodation camp	TfNSW
Dinawan construction compound, accommodation camp and substation	Kidman Way	Basic Right Turn and Basic Left Turn	Prior to commencing construction of the Dinawan construction compound, accommodation camp and substation	TfNSW
Lockhart construction compound and accommodation camp	County Boundary Road	Basic Right Turn and Basic Left Turn	Prior to commencing construction of the Lockhart construction compound and accommodation camp	Lockhart Shire Council

Location	Road	Intersection treatment	Timing	Road authority
Wagga Wagga construction compound	Ashfords Road	Basic Right Turn and Basic Left Turn	Prior to commencing construction of the Wagga Wagga construction compound	Wagga Wagga City Council
Water supply points	Relevant road	Utilise existing access point or install a new access point. Refer to Section 6.2.2.	Prior to construction of the relevant minor access track off the public road network	Relevant council

6.2.1 Construction compounds and accommodation camp access requirements

A review of the intersection types, sight distances, traffic volumes and crash data has been completed as part of the Technical Paper 11 (Traffic and Transport Impact Assessment). The review is ongoing as part of the design review process.

Where a new access point is required to be installed for the construction compound and accommodation camp, the access points will be designed in accordance with the relevant guidelines and in consultation with the relevant road authority. In most cases, the construction compound and accommodation camps would require a BAL (Basic Left) and BAR (Basic Right) intersection as outlined in Table 6.1. The general layouts of this intersection type is shown below.

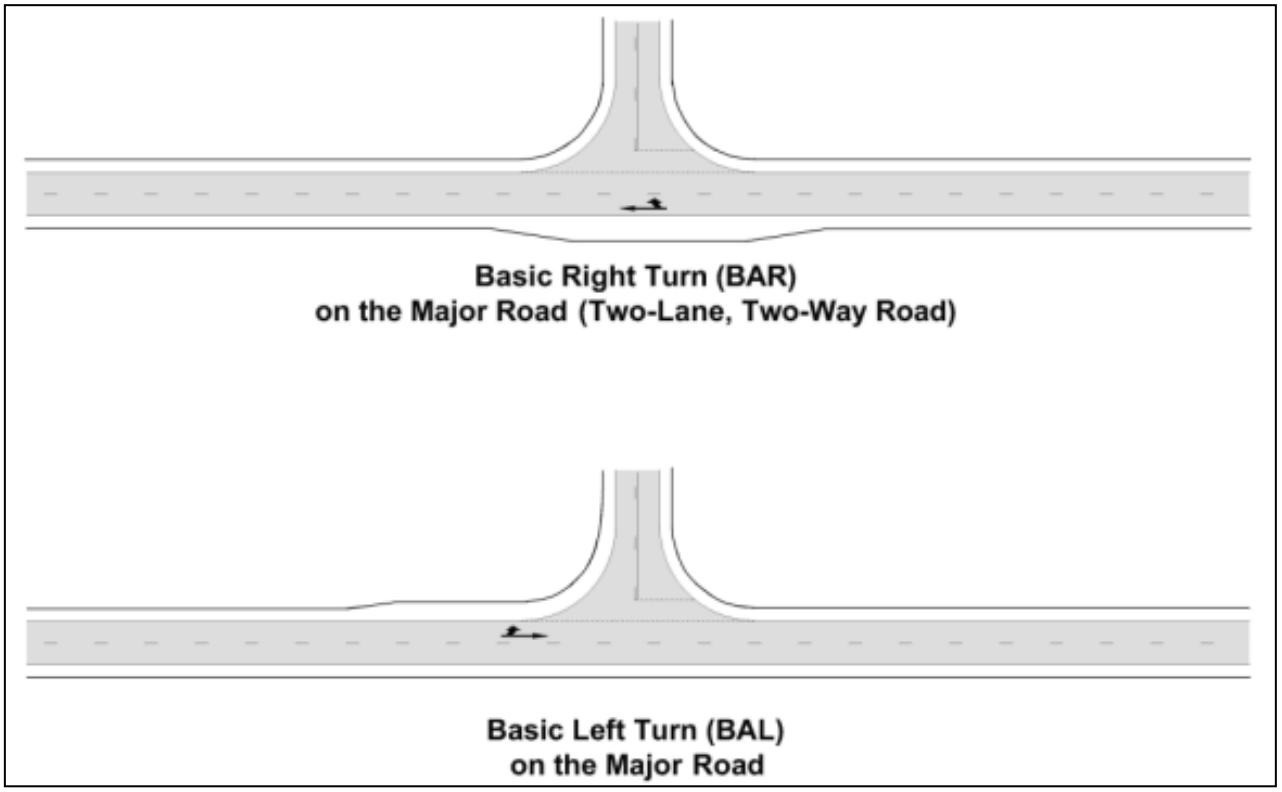


Figure 6.1 - Rural Basic Turn Treatment – BAL (Basic Left) and BAR (Basic Right) intersection layouts

6.2.2 Minor access point intersections

Minor access points for the nominated water supply points will be installed or upgraded as required. Currently there are 18 nominated water supply points which may be used during Stage 1 construction activities. The final location of the water supply points would be confirmed during final negotiations with the water supplier. For the water supply points, the project will seek to use existing access points, where possible. If there are no access points to the water supply point, the project will install a minor access point where required, in consultation with the relevant road authority.

Where there is not an existing access point to the nominated water supply point, the project will install a minor access point as required. The access point will likely consist of gravel with a sealed access, however, the design of the access point will be confirmed during the design phase. Refer to Section 6.2.1 below. These minor access points will be installed prior to the use of water supply point for construction activities. The installation of these minor access points will be temporary and will be removed at the end of the project, unless otherwise agreed with the relevant road authority.

Where there is an existing access point for the nominated water supply point. The project will seek to use the existing access point and further modification/upgrading is not anticipated to be required. The suitability and capacity of the existing access point will be determined as detailed in Section 6.2.2.

6.2.3 Access points design

Design of the access points will be developed in accordance with the *Austroads Guide to Road Design and Austroads Guide to Traffic Management*. SecureEnergy will verify that the proposed intersection treatment has sufficient capacity for the proposed number of construction vehicles. As required, this verification will be provided to the relevant road authorities for use during review.

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

The access points listed in Table 6.1 will be completed in accordance with s138(2) of the *Roads Act 1993*, including the appropriate safe intersection sight distance (SISD) requirements outlined in *Austroads Guide to Road Design Part 4A.*

The access point design will consider traffic flow into and around the work site, accommodation camps, construction compounds, and water supply points. Access points will be installed at the accommodation camps and construction compounds as detailed in Table 6.1. These access points may require widening of 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.

SecureEnergy will seek endorsement of the access point design from the relevant road authorities through their ROP application process. Construction of the proposed access points will not occur until the relevant road authority endorses the design through granting of the ROP. The access points will be approved by the relevant road authority prior to use for the relevant construction activity in accordance with condition C33 and the timing detailed in Table 1 of Appendix 3 of the Infrastructure Approval.

6.2.4 Existing access points

Where possible, SecureEnergy will aim to use existing access points that connect to the public road network to minimise the number of access points that need to be installed. Use of existing connections to the public road network will be considered in consultation with the relevant landholder, when accessing construction areas via private land.

Stage 1 of the project will aim to utilise the existing access point at Balranald construction compound, Wagga Wagga substation and at the nominated water supply points, where the existing access point is sufficient. SecureEnergy will determine if the existing access points have sufficient capacity for the proposed number of construction vehicles.

During Stage 1 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:

- 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.

6.3 Heavy vehicle and over-dimensional vehicles

6.3.1 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 4.5t, 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.

Stage 1 will require 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-D-0121).

SecureEnergy recognises the project's role in managing the transport of plant, equipment and materials to meet the CoR requirements.

6.3.2 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 vehicle access 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 listed in Section 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.

6.3.3 Heavy vehicle access routes

All heavy vehicles associated with the development will only travel to and from the site via the routes described in the EIS, as identified in the figure in Appendix 3 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 access routes will be adjusted in response to road closures by councils (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 the relevant 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.

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.

6.4 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 1 works, short term TCPs will be developed to facilitate the following activities:

- widening of the existing pavement at the Stage 1 access point to construct BAL/BAR treatments; and
- short term stoppages to assist vehicle movements in and out of the Stage 1 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 the relevant councils.

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, detours, 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.

6.5 Scheduling

Section 7 (Cumulative impact assessment) of the EIS outlines the cumulative impact assessment that was completed for the EIS. Projects with the potential for cumulative impacts with the proposal, including land development and state-level road projects, were identified through a review of publicly available information and environmental impact assessments.

All land development projects appear to either involve a small scope of work or generate minimal traffic movements during construction and/or operation. It is also unlikely that these projects would all be under construction concurrently. Overall, the cumulative traffic impacts are considered minor.

The state-level road projects may generate impacts along some access routes during the road upgrades. The impacts are anticipated to be minor to medium in nature and cause temporary delays on some haulage activities due to temporary speed reduction and lane closure.

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 this plan, unless otherwise approved by the Planning Secretary;
- minimising traffic movements by ensuring full loads; and
- 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.

6.6 Outside of standard construction hours

Road upgrades, construction, upgrading and decommissioning activities may only be undertaken between:

(a) 7 am to 6 pm Monday to Friday;

(b) 8 am to 1 pm Saturdays; and

(c) at no time on Sundays and NSW public holidays;

unless the Planning Secretary agrees otherwise.

Condition C1 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 or in accordance with condition C2.

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 C10 f) is provided in Appendix A of the *Noise and Vibration Management Plan* (45860-HSE-PL-D-0110) and identifies the process for the consideration, management and approval of works to be undertaken outside the hours defined in conditions C1, C2 and C10 of the Infrastructure Approval.

Works that comply with condition C2 are not required to be undertaken in accordance with the processes outlined in the OOHW Protocol.

6.7 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.

6.8 Dangerous goods

In NSW, 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.

Dangerous goods will be stored, handled and transported in accordance with *AS1940 The storage and handling of flammable and combustible liquids* and *AS/NZS 1596:2014 The storage and handling of LP Gas*, the *Australian Code for the Transport of Dangerous Goods* by Road and Rail (National Transport Commission 2020), and the EPA's *Storing and Handling of Liquids: Environmental Protection – Participants Manual*.

Although RMM HR13 requires compliance with the *Australian Code for the Transport of Dangerous Goods by Road and Rail* (National Transport Commission, 2018), the Code has been more recently updated (2020).

Examples of dangerous goods and hazardous substances anticipated to be transported for Stage 1 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 7.7. 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.

6.9 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 this 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, 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 be established in the project induction and will be reiterated through pre-starts. SecureEnergy will retain copies of the signed DCCs.

The DCC includes management of fatigue for drivers. This includes the requirements for drivers on the project to:

- manage their fatigue in accordance with the *Driving and Journey Management Work Instruction* (45860-HSE-WI-G-0041);
- be suitably rested by taking regular rest breaks of no less than the minimum periods prescribed by the National Heavy Vehicle Regulator; 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 No 42).*

6.10 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 site vehicle. Mobile IVMS will also 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 but not limited to:

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

The IVMS system will be monitored for compliance. Compliance is reported as part of the Monthly Progress Reports.

6.11 Flood Response Plan

A *Flood Response Plan* (45860-HSE-PL-D-0122) 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 construction compound and accommodation camp, and the earthworks material 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.

Table 6.2 - Traffic and transport management measures

ID	Management measure	When to implement	Responsibility	Source document
Training				
TT1	Training will be provided to all project personnel, including relevant sub-contractors 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
Dilapidation surveys and monitoring				
TT2	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 C34 RMM TA7
TT3	Within one month of the completion of any construction, upgrading or decommission works, or within a timeframe agreed to by the relevant road authority,, another dilapidation survey will be undertaken to assess the condition of all local roads on the transport route (including local road crossings). Any damage to local roads (including road crossings) 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 C34 RMM TA7
TT4	Road and surface conditions and the traffic controls implemented at each proposal site access/egress point from the sealed road network would be monitored during construction. Any identified issues will be rectified.	Construction	Site Supervisors	RMM TA15
Consultation				
TT5	The community will be notified in advance of proposed road network changes through appropriate forms of communication.	Construction	Engagement Manager, Interface Manager	RMM TA9
TT6	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 C35 c) RMM LP6
TT7	Consultation with relevant roads authority will occur in relation to road use.	Construction	Engagement Manager, Environmental Manager, Interface Manager	RMM CI1
TT8	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, Interface Manager	Condition C35 c)
Permits, plans and licences				
TT9	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	Construction	Project Operations Director (or delegate)	RMM TA3

ID	Management measure	When to implement	Responsibility	Source document
	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.			
TT10	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 C35 c)
TT11	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 C35 c)
TT12	Road Occupancy Licence(s) will be obtained (as required) for any road closures (full or partial) on roads that are on haulage routes 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. 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 TA10
TT13	The OOHW Protocol will be implemented for works outside of standard construction hours to minimise traffic impacts on the public road network.	Construction	Environmental Manager, Supervisors	Condition C35 c)
Access routes				
TT14	Access routes will be adjusted in response to road closures by the relevant road authority (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 relevant road authority and affected residents, and suitable management measures identified and implemented.	Construction	Project Operations Director (or delegate)	RMM TA7
TT15	All over-dimensional vehicles associated with the development will only travel to and from the site on access routes outlined in Section 3.1, unless the Planning Secretary agrees otherwise. 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 C31
TT16	All heavy and light vehicles associated with the development will travel to and from the site on access routes outlined in Section 3.1, unless the Planning Secretary agrees otherwise.	Construction	Supervisors	Condition C32
TT17	Alternative route options will be coordinated and appropriately managed, and communicated with the affected residents and the council.	Construction	Site Supervisors	RMM TA13
TT18	If structures are deemed unsuitable, the following alternatives would be considered and implemented where practicable and appropriate: • alternative routes (access via easement);	Construction	Site Supervisors	RMM TA8

ID	Management measure	When to implement	Responsibility	Source document
	• alternative vehicle types (smaller loads); and • temporary works (e.g. propping, or similar) in consultation with asset owners. Any damage to road structures caused by proposal– related heavy vehicle usage would be rectified at the conclusion of use.			
TT19	Where possible, Kyalite Road (if approved for use) will be used during construction instead of Balranald Road, particularly during wet weather events.	Construction	Site Supervisors	Consultation with Murray River Council
TT20	Where possible, the project will aim to minimise the use of Maude Road (within Hay Shire Council) during construction.	Construction	Site Supervisors	Consultation with Hay Shire Council
TT21	The project will ensure that vehicles using Plumpton Road, Wagga Wagga comply with any weight and/or load limit requirements set by Wagga Wagga City Council.	Construction	Site Supervisors	Consultation with Wagga Wagga City Council
Access points				
TT22	SecureEnergy will utilise existing access points which connect to the public road network where feasible and reasonable with the aim to minimise the number of access points to be installed. Use of existing connections to the public road network will be considered, in consultation with the relevant landholder, when accessing construction areas via private land is required.	Construction	Site Supervisors, Design Engineers	Condition C33
TT23	Where a new access point is required to be installed for the substation or construction compound and accommodation camp, the access points will be designed in accordance with the relevant guidelines and in consultation with the relevant road authority. The access point will be constructed to the satisfaction of the relevant road authority.	Construction	Site Supervisors, Design Engineers	Condition C33
TT24	For the water supply points, the project will seek to use existing access points, where possible. If there are no access points to the water supply point, the project will install a minor access point as required.	Construction	Site Supervisors	Condition C35
TT25	SecureEnergy will verify that the proposed intersection treatments have sufficient capacity for the proposed number of construction vehicles. As required, this verification will be provided to the relevant road authorities for use during review.	Construction	Design Engineers	Condition C35
TT26	Temporary access points within the road reserve that are not required for operational reasons will be removed and restored in consultation with the relevant roads authority following the completion of construction.	Construction	Site Supervisors	RMM TA17
Access and scheduling				
TT27	Access to properties will be provided at all times for emergency vehicles.	Construction	Supervisors	Good practice

ID	Management measure	When to implement	Responsibility	Source document
TT28	Access to properties will be maintained or alternative arrangements will be agreed upon in consultation with landholders.	Construction	Supervisors	RMM TA9
TT29	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 C35 c)
TT30	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 C35 c)
TT31	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 C35 c)
TT32	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 C35 c)
TT33	Where feasible, temporary road closures are to be planned outside of the traffic peak periods to minimise impact to the road network.	Construction	Project Operations Director (or delegate)	RMM TA10
TT34	Development related traffic will be scheduled within standard hours, wherever possible.	Construction	Site Supervisors	Condition C35 c)
Emergencies				
TT35	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 C35 c)
TT36	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 C35 c)
TT37	Notification will be given to applicable haul road users before a broken down vehicle is towed.	Construction	Supervisors	Condition C35 c)
Driver's Code of Conduct				
TT38	The Driver's Code of Conduct within Appendix A will be implemented.	Construction	All drivers	Condition C35 d) RMM TA5
Flood Response Plan				
TT39	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 C35 e) RMM HF2

ID	Management measure	When to implement	Responsibility	Source document
Miscellaneous				
TT40	In vehicle monitoring system (IVMS) will be required for 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. IVMS will record live data such as vehicle location, speed and hours spent driving.	Construction	Supervisors	SecureEnergy H&S
TT41	Drivers will communicate via radio and aim to maintain distance between each heavy vehicle.	Construction	Supervisors	Condition C35 c)
TT42	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 C35 c)
TT43	Carpooling and other shared transport initiatives for construction workers will be encouraged throughout construction.	Construction	Supervisors	Condition C35 c)
TT44	All trucks entering or leaving the site with loads will have their loads covered.	Construction	Supervisors	Condition C35 c)
TT45	In order to minimise tracking of mud from the project area onto public sealed roads, the following will be implemented: • implementing progressive erosion sediment control plans (ESCP) to minimise on-site mud; • where weather warrants, inspections to monitor the condition of public sealed roads will be undertaken; • covering of heavy vehicle loads; and • where necessary public sealed roads will be maintained.	Construction	Supervisors	Condition C35 c)
TT46	Dangerous goods and hazardous substances will be transported in accordance with relevant legislation and codes, including: • *Dangerous Goods (Road and Rail Transport) Act 2008*; • *Road and Rail Transport (Dangerous Goods) (Road) Regulation 1998*; • the *Australian Code for the Transport of Dangerous Goods by Road and Rail (National Transport Commission*, 2020); • AS1940 *The storage and handling of flammable and combustible liquids*; • AS/NZS 1596:2014 *The storage and handling of LP Gas;* and • EPA's *Storing and Handling of Liquids: Environmental Protection – Participants Manual.*	Construction	Environmental Advisor, Supervisors	RMM HR13 Condition C41
TT47	All plant and equipment used for the project will be maintained in a proper and efficient condition, and operated in a proper and efficient manner.	Construction	Plant and equipment operators, Subcontractors, Supervisors	Condition A19

7 Compliance management

7.1 Training and awareness

All site personnel will undergo the SecureEnergy site induction training prior to the personnel participating in on-site construction activities. The induction training addresses 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;
- complying with the conditions of the Infrastructure Approval;
- roles and responsibilities for traffic management; and
- driver behaviour and the DCC.

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

- VMP – approved heavy vehicle access 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;
- working hours; and
- flood response.

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 of the CEMP.

The project environmental management structure incorporates the following site personnel:

- Environmental Manager responsible for overall management of the CEMP and CEMP sub-plans; and
- Environmental Advisors to assist in implementing and monitoring measures in the CEMP and CEMP sub-plans.

SecureEnergy's Project Director, in consultation with functional managers, will ensure that appropriate resources are available to effectively manage the implementation of the CEMP and CEMP sub-plans during delivery of the project. All SecureEnergy staff, subcontractors and visitors are required to operate in accordance with this SWMP and related environmental management plans during construction.

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

Item	Scope	Frequency	Responsibility	Record/ reporting
Weekly inspection	Inspection of the environmental controls and implementation of the traffic and transport mitigation measures outlined in Table 6.2.	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.

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	Construction Manager	Transgrid 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 Annual basis during construction works	Construction Manager	Transgrid Relevant road authority (in consultation with the relevant road authority)
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 will be prepared. Further detail in relation to auditing is provided within Section 9.3 of the CEMP.	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 DPE

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

7.7 Emergencies, incidents and non-compliances

7.7.1 Emergencies

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 through Clough three-tiered management system approach. Depending on the severity of the emergency, emergencies will be managed in accordance with the following:

- Level 1 – on-site emergencies will be in accordance with the *Project Specific Emergency Preparedness and Response Plan* (45860-HSE-PL-G-1015);
- Level 2 – emergency situations where response exceeds the capacity of site resources incidents will be coordinated by the Incident Coordination Team; and
- Level 3 – an emergency situation where the incident has the potential to, or has impacted, the business in terms of, reputation, and commercial liability. Incidents will be supported by the Major Incident Management Team.

Emergencies will be responded to in accordance with the level of the emergency (listed above). For each level of emergency, the situation will be assessed, the site support requirements will be established and notification will occur. A Level 1 emergency will result in activation of the *Project Specific Emergency Preparedness and Response Plan* (45860-HSE-PL-G-1015). A Level 2 emergency will result in activation of the Incident Coordination Team, and a Level 3 emergency will result in activation of the Incident Management Team.

Refer to Section 8.1 of the CEMP – Emergency preparedness and emergency response for further details.

7.7.2 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. All site personnel are authorised to suspend a work activity that is likely to cause, or is actually causing or contributing to an incident. A supervisor/manager may request additional staff be deployed to the site to provide additional capacity or capability to manage the incident.

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

All environmental incidents that occur on the project, regardless of how minor, must be reported to a supervisor by personnel involved or witnesses to the incident immediately after the incident occurs. The Environmental Manager will be notified immediately of any environmental incident. Transgrid will be notified of incidents and near misses immediately. Formal, documented reporting of incidents will be completed, and will be submitted to Transgrid in accordance with requirements under the Contract. The Environmental Representative will also be included on all incident notifications.

For incidents which are reportable to DPE, notification will occur to DPE via the Major Projects website immediately after becoming aware that an incident has occurred. A written notification will then be provided to DPE via the Major Projects website within seven days after becoming aware of the incident. Refer to Section 8.3.1 of the CEMP - Incident notification and reporting in accordance with the Infrastructure Approval for further details requirements of the notification.

7.7.3 Non-compliances

Where a non-compliance with the Infrastructure Approval 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.

Reporting of non-compliances will be undertaken as described in Section 10.1 of the CEMP – Reporting non-compliances. The Planning Secretary will be notified in writing via the Major Projects

website within seven days after Transgrid becomes aware of any non-compliance. The written non-compliance notifications will contain the requirements set out in condition D8 of the Infrastructure Approval and will include details such as:

- the non-compliance;
- the reasons for the non-compliance (if known); and
- what actions have been taken, or will be taken, to address the non-compliance.

The notification will also need to identify the development, application number and condition of approval that the development is non-compliant with. Refer to Section 10.1.1 of the CEMP - Reporting non-compliances in accordance with the Infrastructure Approval for further details requirements of the notification.

A non-compliance which has been notified as an incident does not need to also be notified as a noncompliance.

Failure to comply with other statutory requirements such as the EPBC Act Approval will be reported in accordance with Section 10.1.2 of the CEMP. Any other reporting will occur in accordance with Section 10.1.3 of the CEMP.

Where a non-compliance has been identified, the non-compliance will be reviewed by the Environmental Manager to determine the reason for the non-compliance, and what corrective actions have, or will be taken, to address the non-compliance. Preventative actions will be developed as required and implemented to minimise the potential for recurrence.

Section 11 of the CEMP – Non-compliance, non-conformance, corrective and preventative action describes the process for non-compliance management.

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.

Corrective and preventative actions may be generated from a number of sources, including but not limited to incidents, audits and management reviews. The actions will be managed in accordance with the Clough management system to ensure that the required actions are tracked and closed out in a timely manner. The completion of the required actions will be recorded, and will include details on the source of the action (e.g. audit, inspection or other), the action required, target close out date, actual close out date and the person responsible.

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.

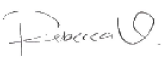
If the above monitoring program identifies that the unexpected impacts have not been reduced to below the nominated criterion/criteria, items b) to d) of the contingency process will be repeated.

The consequences of the impact will be assessed when identifying corrective and preventative actions related to incidents and non-compliances/nom-conformances.

Appendix A - Driver's Code of Conduct

INTERNAL

Driver's Code of Conduct
EnergyConnect (NSW – Eastern Section)
45860-HSE-PR-D-0019

REV	DATE	GENERAL DESCRIPTION	PREPARED	REVIEWED	VERIFIED	VERIFIED	APPROVED
A	10/05/2022	Issued for internal review	M.Lee	R.Walker-Edwards	A.Boyd	JL.Barrenechea	D.Whatmough
B	25/05/2022	Issued for Transgrid's review	M.Lee	R.Walker-Edwards	A.Boyd	JL.Barrenechea	D.Whatmough
C	15/08/2022	Issued for agency consultation	 M.Lee	 R.Walker-Edwards	 A.Boyd	 B.Calligeros	 S.Basanta

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Revision History	
Rev.	**Detailed Description**
A	Issued for internal review
B	Issued for Transgrid's review
C	Issued for agency consultation

Key Document Stakeholders
To be communicated with during reviews and revisions of this document

1 Introduction

This Driver's Code of Conduct (DCC or Code) has been prepared to address the requirements of condition D39 d) of the Infrastructure Approval (SSI-9172452) granted by the Minister for Planning. This Driver's Code of Conduct is part of the Traffic and Transport Management Plan (TTMP) for the delivery of EnergyConnect (NSW – Eastern Section) 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 (NSW – Eastern Section). 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 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 weekly visual inspections. The 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.

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 (NSW – Eastern Section)

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;
   - 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;
   - 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 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 on a gazetted road, drivers are to follow item 8) below.
2) There shall be no littering from a vehicle. 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.
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; 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) Fauna strikes are to be reported to your Supervisor. The Supervisor is to ensure these details are reported to the Environment team.

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.

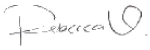
1) Drivers MUST at all times:
   - adhere to their Chain of Responsibility requirements;
   - ensure the heavy vehicle is operated within its legal mass and dimension limits;
   - adhere to any permit to travel requirements;
   - adhere to direction of road authorities and OSOM permit; and
   - adhere 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. Drivers are to avoid forming convoys where other road users are limited in vehicle movements by no-break in heavy vehicles.

Appendix B - Flood Response Plan

INTERNAL

Flood Response Plan
EnergyConnect (NSW - Eastern Section)
Stage 1

45860-HSSE-PL-D-0122

REV	DATE	GENERAL DESCRIPTION	PREPARED	REVIEWED	VERIFIED	VERIFIED	APPROVED
A	8/07/2022	Issued for internal review	M.M.Hutcheson	R.Walker-Edwards	A.Boyd	B.Calligeros	S.Basanta
B	22/07/2022	Issued for Transgrid review	M.M.Hutcheson	R.Walker-Edwards	A.Boyd	B.Calligeros	S.Basanta
C	19/10/2022	Issued for Transgrid review	 M.Lee	 R.Walker-Edwards	 A.Boyd	 B.Calligeros	 S.Basanta

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Revision History	
Rev.	**Detailed Description**
A	Issued for internal review
B	Issued for Transgrid review
C	Issued for Transgrid review. Updated to reference final Infrastructure Approval.

Key Document Stakeholders
To be communicated with during reviews and revisions of this document

Contents

Tables

Abbreviations

Acronym	Definition
AEP	Annual Exceedance Probability
Amendment Report	*Amendment Report EnergyConnect (NSW – Eastern Section)*
BoM	Bureau of Meteorology
CEMP	Construction Environmental Management Plan
EIS	*Environmental Impact Statement EnergyConnect (NSW – Eastern Section)*
EPA	NSW Environment Protection Authority
ERT	Emergency Response Team
ER	Emergency Response
FRP, this plan	Flood Response Plan
HSSE Manager	Health, Safety, Sustainability, and Environmental Manager
Minor flood	A flood classification determined by emergency services; characterised by the inundation of low-lying areas next to water courses, closure of minor roads, and submersion of low-level bridges. In urban areas flooding may affect some backyards and buildings below floor level as well as bicycle and pedestrian paths. In rural areas removal of livestock and equipment may be required.
NSW	New South Wales
PMT	Project Management Team
project, the	EnergyConnect (NSW – Eastern Section)
RFS	Rural Fire Service
RMMs	Revised mitigation measures
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
SES	NSW State Emergency Service
Site PMT	Project management team (Construction Manager, Project Manager) based on construction sites
SSI	State significant infrastructure
Submissions Report	*EnergyConnect (NSW – Eastern Section) Submissions Report*

1 Introduction

1.1 Context

This Flood Response Plan (FRP or plan) forms part of the *Traffic and Transport Management Plan* (45860-HSSE-PL-D-0109) and the overall Construction Environmental Management Plan (CEMP) for Stage 1 of EnergyConnect (NSW – Eastern Section).

This plan has been prepared to address the relevant requirements of the Infrastructure Approval (SSI 9172452), the *Environmental Impact Statement EnergyConnect (NSW – Eastern Section)* (EIS), and the *Submissions Report EnergyConnect (NSW – Eastern Section)* (Submissions Report). This document does not remove the presence of any Unforeseeable Requirements as notified to the Employer that exist or have the potential to arise in the future. The Contractor reserves its rights under the EPC Contract and at law in relation to this matter.

1.2 Purpose and objective

The purpose of this plan is to address the requirements of condition C35 e) of the Infrastructure Approval, which requires the preparation of the FRP.

The key objective of this plan is to meet the requirements of condition C35 c) and e), 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 FRP.

2.2 Conditions of Approval

The conditions of the Infrastructure Approval relevant to the flooding 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
C35	The Traffic and Transport CEMP Sub-Plan required under condition B2 must include:		
	c) details of the measures that would be implemented to:		
	(i) minimise traffic safety impacts of the development and disruptions to local road users during construction, upgrading or decommissioning works, including: • responding to local climate conditions that may affect road safety such as fog, dust, wet weather and flooding;	Section 4	Section 4 details the preparation and response that will be undertaken 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 Section 4.4 Section 4.6 and Table 4,1	The procedure for safe evacuation is identified in Section 4.6. The procedure in response to a flooding event is summarised in Table 4.1.

2.3 Revised mitigation measures

The revised mitigation measures (RMMs) are defined in Appendix B of the Submissions Report. 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 would consider flood risk at construction areas. This would include: • identifying measures that would be implemented to not worsen flood impacts downstream and on other property and infrastructure during construction up to and including the five per cent annual exceedance probability (AEP) design flood event and; • confirming site layouts to avoid or minimise obstruction of overland flow paths and to limit the extent of flow diversion required. Practicable measures identified to minimise potential flood risks at construction areas would be implemented.	Transmission line and construction sites within flood prone land	Section 4.2 Section 4.5 and Section 4.7.	In the event of a flood the flood response procedure will be followed as summarised in Section 4.7.
HF3	A detailed assessment would be undertaken to confirm that the bench level of the final design of the Dinawan 330kV Substation will be above the 100-year average recurrence interval (ARI) design and that a 200 year ARI design flood would not impede substation function. The assessment would consider spills/overflows from the detention basin on the irrigation channel to the east of the substation location and a potential failure of the basin embankment. The bench level and design of the substation would be adjusted to ensure compliance with Transgrid's design standards.	Dinawan 330kV Substation	Section 3.3 and Detailed design	Earthworks will be undertaken to raise the design level of the site.

3 Site characteristics

This section summarises the existing environmental setting in relation to the hydrology and flooding aspects within and adjacent to Stage 1. The information below is from Chapter 16 and 21 of the EIS, and *Technical Paper 8 - Hydrology, flooding and water quality* of the EIS.

3.1 Topography

The topography of the project varies from the western extent to the eastern extent. At a macro level, the catchments slope from east to west with the eastern extent of the project sitting approximately 200m above sea level and the western extent sitting approximately 40m above sea level at Mildura. While the terrain varies, it is generally flat to undulating plains country. Localised topographic highs of up to approximately 380m occur approximately 10km west of the Wagga Wagga substation.

The existing large watercourses and waterbodies in proximity to the project are the Murray River, Murrumbidgee River, Lake Urana and Yanga Lake. There are a high number of creeks adjacent to the project area.

The elevation of the Dinawan and Wagga Wagga substations and their adjacent camps and laydowns is approximately 125m and 250m above sea level respectively. The Cobbs Highway camp and adjacent laydown is approximately 125m above sea level. The remaining two laydowns at Lockhart and Balranald sit 175m and 125m above sea level respectively.

3.2 Climate and rainfall

The project region has a semi-arid climate with hot summers and cool winters. The average temperature range is around 16°C to 33°C in summer and around 4°C to 15°C in winter. The average annual rainfall across the project varies, however average rainfall is generally higher at project's eastern extent than that of the western extent.

The EIS used data from three weather stations (Irymple, Urana Post Office, and Wagga Wagga Gurwood Street) which are spaced at near regular intervals throughout the project corridor with the aim to outline the climactic context of the project area.

The closest weather station to Buronga at the western extent of the project (Irymple, station number 076012) records an average annual rainfall of 271mm (1908-2020). Rainfall is typically evenly dispersed throughout the year, with a peak in rainfall values from November to April.

The Urana Post Office weather station (station number: 074110) near the eastern extent of the project records an average annual rainfall of 442.2mm (1871-2020). The average monthly rainfall is slightly higher during May and June.

Near the eastern extent of the project, the average annual rainfall recorded at Wagga Wagga Gurwood Street station (station number: 074127) is 528.1mm from 2001-2020 and 568mm from 1941-2020 at Wagga Wagga AMO station (station number: 072150).

3.3 Floodplain

The EIS used data from a high-level flood risk assessment was conducted by BECA in 2020 to outline the potential extent of flooding in the vicinity of the project. The EIS stated in Section 16.4.1 that the site for the upgrade and expansion of the Wagga Wagga substation is not located within a flood prone area and is therefore not affected by flooding nor at risk of experiencing flooding impacts on construction works at the sites.

Section 4.1.4 of the Submissions Report (submission ID 49) indicated that there is a nearby levee bank along the irrigation channel to the proposed location of the Dinawan 300kV substation used as a detention basin for the Coleambally Irrigation system. The submission noted that the levee poses a risk of potential impact to the proposed Dinawan 330kv substation as it is made only from nearby soil, occasionally requiring repairs, and was not constructed with consideration of there being a major electrical substation nearby downstream of the basin.

Section 16.4.1 of the EIS also stated that all other construction compounds and accommodation camps were identified as being located away from flood prone areas and are similarly not at risk of flooding impacts on construction works.

The EIS found that works at each of the Stage 1 sites did not pose any risk of impacting flood behaviour in the vicinity.

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 onset of the flood.

As mentioned in Section 3.3, the proposed Dinawan substation, the upgraded and expanded Wagga Wagga substation, main construction compounds, and accommodation camps are highly unlikely to experience flooding as the areas these features are situated in are not prone to flooding.

Roads used for access and egress to and from sites during flooding events will be subject to the discretion of the HSSE Manager and site supervisor based on advice from media reports, NSW State Emergency Services (SES), the Murray Darling basin Authority, and Water NSW.

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 SES total flood warning systems;
- the Murray Darling Basin Authority (for information in relation to the Hume Dam); 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.

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-HSSE-PL-D-0112).

4.2 Site preparation

All construction areas will be inspected and prepared in accordance with the Health and Safety Management Plan (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. All personnel will be directed to seek shelter at their designated accommodation camp and construction compound or their nominated off-site accommodation (where safe to do so), at the appropriate times staged as below:

- site personnel including support personnel shall return to flood refuge (accommodation) on notice from the Project Management Team (PMT) via a determined safe route as described in Section 4.5;
- designated 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 PMT or Superintendent to carry out preparedness duties.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

The Wagga Wagga substation construction compound and accommodation camps and all other construction compounds and accommodation camps, excluding Dinawan substation, are not at risk of flooding. As such, areas within each construction compound and accommodation camps will be nominated by the Project Team as muster points in the event that personnel are required to stop work and muster.

Prior to or during a flood, personnel may be required to leave the site to return to their accommodation or place of residence.

Weather monitoring and monitoring of media would provide identification of potential flooding risk and would allow safe and orderly evacuation of site personnel if 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.

The *Emergency Preparedness & Response Plan* (45860-HSSE-PL-G-1015) has been prepared to include a section on flood emergency management that will be implemented in response to flood events.

4.6 Site access and egress

In the event of a flood, access and egress to and from the Dinawan substation, Wagga Wagga substation construction compound and accommodation camps, and all other construction compounds and accommodation camps will be via safe routes determined 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.

Further information on road closures can be obtained from:

- Wagga City Council (website, Twitter, and Facebook pages);
- Lockhart Shire Council;
- Murrumbidgee Council;

- Edward River Council;
- Balranald Shire Council;
- 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 Southern Zone Headquarters.

Contact details are also provided within Appendix B.

Access back to the site, once deemed safe, will be assessed as per Appendix A.

4.7 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
BoM warning for flooding or flash flooding	Increase level of alert	Monitor BoM website Notify all Site Supervisors of warning Complete actions within Section 4.2 Site preparation and Section 4.3 Personnel	Environmental Manager Site Supervisor Construction Manager Project 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 Construction Manager 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 Construction Manager Site Supervisor HSSE Manager	Following flood event

5 Flood recovery

5.1 Site inspections

Sites would be reopened after a flood event only once it is deemed safe following a site inspection by a site safety representative and site supervisor. Other specialists, such as 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 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, HSSE 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

The following details will be refined during construction.

EXAMPLE EMERGENCY CONTACT LIST

Position	Name	Contact
Person in Charge	Project Manager	Phone: TBA Email: TBA
Person in Charge	Site Supervisor	Phone: TBA Email: TBA
Person in Charge	Construction Manager	Phone: TBA Email: TBA
HSSE	HSSE Manager	Phone: TBA Email: TBA
HSSE	Environmental Manager	Phone: TBA Email: TBA
Log Keeper	HSSE Administrator	Phone: TBA Email: TBA
Emergency Response Team	External Agencies	Phone: TBA Email: TBA

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

EXAMPLE EMERGENCY SERVICE CONTACT DETAILS

Emergency Contacts	
IN AN EMERGENCY and **FOR ALL FIRES: DIAL 000 (TRIPLE ZERO)** 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**
NSW RFS	https://www.rfs.nsw.gov.au/fire-information/fires-near-me
NSW Ambulance	131 233
State Emergency Service	132 500
NSW SES Southern Zone Headquarters	02 6932 9199
Fire and Rescue NSW General Enquires	02 9265 2999
TransGrid (emergencies)	1800 027 253
SafeWork NSW	13 10 50
EPA Pollution Incident Hotline	131 555
Transport for NSW	13 22 13