Centennial Coal

Mandalong Mine Substation and Car Park Upgrade

Construction Traffic Management Sub Plan

CEMP-8400-CTMSP-8401

February 2020

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GLOSSARY

Term	Definition
CEMP	Construction Environmental Management Plan.
Centennial Mandalong	Centennial Mandalong Pty Limited.
Centennial Environmental Representative	A suitably qualified and experienced person employed by Centennial Coal for the duration of construction. The principal point of advice in relation to all questions and complaints concerning environmental performance.
Construction Zone	The work area including pole sites and access tracks.
Contractor	The contracting company engaged by Centennial Mandalong to undertake the construction works.
CTMSP	Construction Traffic Management Sub-Plan.
DPIE	Department of Planning Industry and Environment.
Resources Regulator	Planning Industry and Environment – Resources Regulator
EIS	Environmental Impact Statement.
EMS	Environmental Management Strategy.
Environmental aspect	Defined by AS/NZS ISO 14001: 2016 as an element of an organisation's activities, produces or services that can interact with the environment.
Environmental impact	Defined by AS/NZS ISO 14001: 2016 as any change to the environment, whether adverse or beneficial, wholly or partially resulting from an organisation's environmental aspects.
Environmental incident	An unexpected event that has, or has the potential to, cause harm to the environment and requires some action to minimise the impact or restore the environment.
Environmental objective	Defined by AS/NZS ISO 14001: 2016 as an overall environmental goal, consistent with the Environmental policy, that an organisation sets itself to achieve.
Environmental policy	A written statement outlining an organisation's intention and principles for environmental performance.
Environmental target	Defined by AS/NZS ISO 14001: 2016 as a detailed performance requirement, applicable to the organisation or parts thereof, that arises from the environmental objectives and that needs to be set and met in order to achieve those objectives.
EP&A Act	Environmental Planning and Assessment Act 1979.
EPA	NSW Environment Protection Authority.
EPBC Act	Commonwealth Environment Protection & Biodiversity Conservation Act 1999.
EPL	Environment Protection Licence.
ESA	Environmentally Sensitive Areas
EWMS	Environmental Work Method Statement.
LMCC	Lake Macquarie City Council.
Minister	NSW Minister for Planning.
MMAS	Mandalong Mine Access Site.
MSSS	Mandalong South Surface Site.
NHVR	National Heavy Vehicle Register.
Non-compliance	Failure to comply with the requirements of the development consent or any applicable licence, permit or legal requirement.

Term	Definition
Non-conformance	Failure to conform to the requirements of the Project system documentation including this CEMP or supporting documents.
NPW Act	NSW National Parks & Wildlife Act 1974.
OEH	NSW Office of Environment and Heritage (now replaced by BCD)...
Project	The Mandalong Mine Electrical Sub Station Upgrade as described in the Project's Statement of Environmental Effects (EMM, 2019).
Project Team	Centennial personnel and any contractors authorised by Ausgrid to work on the Project.
PESCP	Progressive Erosion and Sediment Control Plan.
SEE	Statement of Environmental Effects.
Secretary	Secretary of the Department of Planning, Industry and Environment.
SISD	Safe intersection sight distance.
SSD	State Significant Development, as defined in the Instrument of Approval.
TCP	Traffic control plan.
TfNSW	Transport for New South Wales
VMP	Vehicle movement plan.

1 Introduction

1.1 Purpose

This Construction Traffic Management Sub Plan (CTMSP) details the requirements for the management of traffic impacts during the electrical sub station upgrade and car park extension at the Mandalong Mine Access Site. This CTMSP has been developed to comply with the requirements of the Development Consent (SSD-5144).

The purpose of this CTMSP is to provide a structured approach to the management of traffic during construction of the Project. In particular, this CTMSP:

- Describes mitigation measures and controls to be applied on-site to avoid or minimise impacts to local traffic during construction;
- Provides mechanisms for compliance with applicable policies, approvals, licences, permits, and legislation;
- Describes the traffic management related roles and responsibilities of all Project personnel;
- States objectives and targets for the management of traffic impacts during construction;
- Outlines a monitoring and reporting regime to check the adequacy of traffic management controls as they are implemented during construction; and
- Provides a Drivers' Code of Conduct which summarises the key points of the CTMSP.

1.2 Consultation

This CTMSP has been prepared in consultation with Lake Macquarie City Council (LMCC) and Transport for New South Wales (TfNSW). A summary of the consultation with LMCC and TfNSW is provided in Appendix B. The CTMSP will be forwarded to The Department of Planning, Industry and Environment (DPIE) to be approved by the Secretary, as per the condition of consent, before construction begins.

1.3 Distribution

This CTMSP is available to all Project personnel via the Project document control management system. An electronic copy can also be found on the Centennial Coal - Mandalong website (http://www.centennialcoal.com.au/Operations/OperationsList/Mandalong.aspx). The document is uncontrolled when printed. One controlled hard copy of this document will be maintained by the Environmental Representative at Mandalong Mine. Registered copies (including updated versions) will be distributed via the Project document management system to:

- Centennial's Project Manager;
- Centennial's Environmental Representative; and
- Contractor's Project Manager.

1.4 Review, Revision and Improvement

A document review process ensures that the Project's environmental management documents, including this CTMSP, are updated as appropriate for the specific works that are occurring on-site. Should the document review process identify any issues or items within this document that are either redundant or in need of updating, it is the responsibility of the Centennial Environmental Representative to update any documents as necessary.

Any revisions of this document will be provided to relevant stakeholders for review and comment and forwarded to the Secretary of DPIE for approval as required by Schedule 6 Condition 7 of the Development Consent (SSD-5144).

Revised versions of the CTMSP will be made available to Project personnel through the processes described in Section 1.3.

Key events that will trigger a requirement to review, and if necessary, revise this CTMSP include:

- Changes to the detailed design for the Project which affect traffic management;
- Relevant changes to legislation;
- Incidents, non-conformances or non-compliances as identified through monitoring, inspections and auditing; and
- Relevant modifications to the Development Consent, Environment Protection Licence (EPL), Mining Lease (ML), or other relevant lease, licence or approval.

1.5 Site description

1.5.1 Site location

Mandalong Mine is an existing underground longwall coal mine approximately 130 km north of Sydney and 35 km south-west of Newcastle near Morisset.

The nearest major population centres are Morisset, 2.5 km to the east; Wyee, 6.5 km to the south-east; and Cooranbong, 4.5 km to the north. The Sydney to Newcastle M1 Pacific Motorway and the Main Northern Railway Line both pass immediately to the east of the MMAS in a north-south alignment. Access to the MMAS is via Kerry Anderson Drive off Mandalong Road (refer to **Figure 1**).

The Project, which includes the disturbance area associated with the proposed services corridor, substation upgrades and additional car park area is within the development consent boundary for the Mandalong Mine and encompasses an area of approximately 0.3 ha.

1.5.2 Site layout and description

The MMAS consists of mine support infrastructure including a decline tunnel, mine ventilation shafts and fans, gas drainage plant, workshops, administration buildings, bathhouse facilities and mine personnel car parking (refer to **Figure 3**).

The Project area consists of the grassed area on the eastern and southern boundary of the existing substation, the services corridor west of the existing substation, and the patch of vegetation further east of the existing substation (refer to **Figure 3**).

Kerry Anderson Drive, which is the primary access road to the MMAS from Mandalong Road is immediately east of the Project.

1.5.3 Sensitive receptors

The closest residential dwelling is approximately 280 m west of the Project, with several rural properties further west of the Project off Mandalong Road (refer to **Figure 1**). There are additional rural properties east of the Project and M1 Pacific Motorway along Gimberts Road (refer to **Figure 1**).

1.6 Project Description

1.6.1 Clearing and site establishment

An area of 0.18 ha of vegetation will be cleared within the Project area to facilitate the construction of the additional car parking facilities and the proposed substation upgrade. No major excavation will be required and cleared vegetation will be mulched and kept on-site, where practicable. Following vegetation clearance, the Project area will undergo site establishment works to provide a secure and stable surface.

1.6.2 Substation upgrade and additional car park

Following site establishment, approximately 120 cubic metres (m3) of road base and asphalt will be imported and used within the Project area to prepare the additional car parking area.

The substation upgrade will involve the construction and installation of a portable switch room and a transformer mounted on a skid-base that will be constructed off-site. The equipment will be mounted directly under, and will be interfaced with, the current 33 kV power lines coming into the existing electrical substation.

1.6.3 Construction employment and traffic

A maximum of 10 personnel will be required for each stage of construction (i.e. site clearing, site preparation and construction).

It is forecast that there will be up to 10 daily light vehicle visits (maximum 20 daily light vehicle movements) and up to 15 daily heavy vehicle deliveries (maximum 30 daily heavy vehicle movements) for construction. Daily and peak hourly construction traffic movements will include plant, equipment and construction materials deliveries and the removal of waste from site clearing (if required).

1.7 Environmental Management Plan Context

Environmental management during construction of the Project is addressed in the Mandalong Mine Sub Station and Car Park Upgrade Construction Environmental Management Plan (CEMP). This CTMSP forms part of the Project's environmental management framework. It is one of many integrated management plans and monitoring programs that have been developed to support the overriding Mandalong Mine Environmental Management Strategy (EMS). The mitigation and management measures identified in this document will be implemented during the Project.

1.7.1 Development Consent Requirements and EIS Commitments

This document was based on the requirements of the Mandalong Southern Extension Project and they are described below.

Requirements for the management of traffic during the upgrade to the electrical sub station and car park extension are driven by conditions of Centennial's Development Consent (SSD-5144) and the Modification 8 to SSD-5144 SEE (EMM, 2019). These requirements are set out below, together with reference to where each one is addressed.

Table 1-1 Development Consent Conditions

Source	Requirement	Section Addressed
Development Consent SSD – 5144 schedule 3, condition 27B	The Applicant must prepare a Construction Traffic Management Plan for management of construction activities for Modification 8 to the satisfaction of the Secretary. This plan must:	This Document
	(a) be prepared in consultation with TFNSW and LMCC;	Section 1.2, Appendix B
	(b) be approved by the Secretary prior to the commencement of any construction activities associated with the Modification 8;	Section 1.2
	(c) include details of all transport routes and traffic types to be used by construction-related traffic;	Section 2.2
	(d) include details of the measures to be implemented to minimise traffic safety issues and disruption to local road users during construction activities, including: I. employee / contractor parking; II. notifying the local community about construction-related traffic impacts; III. responding to any emergency repair requirements or maintenance during construction activities; and IV. A traffic management system for managing over-dimensional vehicles.	Section 3
	(e) include a drivers' code of conduct that addresses; V. travelling speeds; and VI. Procedures to ensure that drivers implement safe driving practices.	Appendices A.
	The Applicant must implement the management plan as approved by the Secretary.	Section 1.2
Statement of Environmental Effects Noise	(f) Develop routes for the delivery of materials and parking of vehicles to minimise noise; (g) Minimise the movement of materials and plant and unnecessary metal on metal contact; and (h) Minimise truck movements.	Section 3.4

1.7.2 Regulatory requirements

Identified regulatory requirements relevant to traffic management include:

- *LMCC Engineering guidelines to the Development Control Plan – Part 2 Construction guidelines, (December 2013);*
- *AS2890.2 2018 Off-street commercial vehicle facilities; and*
- *NSW Road Rules.*

Other documents relevant to this Construction Traffic Management Plan include:

- *RTA Traffic Control at Worksites Manual - Version 5 (2018)*.

1.8 Objectives and Targets

The objectives and targets listed in **Table 1-2** have been established by Centennial for the management of traffic impacts during construction of the Project.

Table 1-2 Objectives and Targets for Traffic Management during Construction

Objective	Target
Maintain compliance with the Development Consent, Statement of Commitments and other relevant legislation for the duration of the construction programme.	No non-compliances recorded for the duration of construction.
Minimise impact on local traffic.	Zero incidents. Minimise complaints.
Minimise impact on other road users (e.g. pedestrians, cyclists and horse riders).	Zero incidents and/or injuries.
Arrange work so that workers can work safely and are separated from road users wherever possible.	Zero incidents and/or injuries.

2 Implementation

2.1 Risk Assessment

Centennial Coal has adopted the Stature Risk Assessment Program which was developed to ensure consistency in all risk assessments across the Centennial Coal operations. The Stature Risk Assessment Program sets out an environmental consequences table and risk ranking matrix for managing identified risks.

All construction and operational processes undertaken at Centennial Coal are subject to the risk assessment process prior to implementation. Potential impacts are considered as part of all risk assessments utilising the Stature Risk Assessment Program. Issues identified in Project risk assessments relating to construction traffic include:

- Construction traffic impacts resulting in community complaints or noise impacts to sensitive receivers;
- Construction traffic impacts resulting in impacts on road safety and serviceability; and
- Construction traffic impacts resulting in air quality exceedances.

Prior to the start of construction, a construction specific risk assessment will be carried out with the Principal Contractor. This will include traffic related hazards in the Construction Zone and along Mandalong Road.

2.2 Baseline Data

2.2.1 Existing Environment

The exiting road network within the project area is shown in **Figure 1**. and is summarised below.

The following roads and their current traffic situation are described in the Traffic Impact Assessment (EMM, 2019):

Kerry Anderson Drive

Kerry Anderson Drive is the main access road connecting to the MMAS. It is a sealed road about 150 m long with one lane in each direction (north-south). It intersects Mandalong Road about 350 m west of the Mandalong Road/M1 Pacific Motorway intersection (refer **Figure 2**). The speed limit is reduced to 15 km/h close to the entrance to the existing car parking areas. The general road width varies between 5.6–6.5 m with 1–1.2 m shoulder width.

Mandalong Road

Mandalong Road is a 16.5 km-long two-way one-lane rural road running from Morisset in the north-east to Dooralong in the south-west. Mandalong Road commences at the large roundabout with Wyee Road, approximately 1.7 km east of the MMAS and extends west to the intersection with Dooralong Road at Dooralong (refer **Figure 1**). The general speed limit is 80 km/h. The road sealed width is approximately 8.4–9 m. Some sections do not have marked shoulders.

At the site access intersection, Mandalong Road is widened to two lanes in each direction and includes auxiliary left and right turning lanes for at least 100 m in each direction. Mandalong Road is an approved 25 m/26 m B-double route.

The M1 Pacific Motorway

The M1 Pacific Motorway is a 127 km long freeway linking Sydney to the Central Coast, Newcastle and Hunter regions of NSW. It is an approved 25 m/26 m B-double route.

Intersections

The following intersections are described in the TIA:

- the site access intersection (i.e. Kerry Anderson Drive/Mandalong Road) – a T-junction;
- Mandalong Road/M1 Pacific Motorway intersection (western ramps) – vehicles only travel in the Northbound direction entering the motorway via the northern on-ramp or exiting the motorway from the southern off ramp; and
- The Mandalong Road/M1 Pacific Motorway intersection (eastern ramps) – vehicles only travel southbound entering the motorway via the southern on-ramp or exiting from the motorway via the northern off-ramp.

2.2.2 Existing Traffic data

EMM undertook a Traffic Impact Assessment in April 2019. A summary of the results of the survey are described below.

There are up to approximately 660 daily light vehicle movements in and out of the MMAS on a typical weekday. Currently approximately 97% of the total light vehicle movements travelling to/from the MMAS are from the east via Mandalong Road (i.e. 634 light vehicle movements). The remainder of the total light vehicle movements travelling to/from the MMAS are sourced from the west via Mandalong Road (i.e. 26 light vehicles). It is estimated that there are approximately 14 daily heavy vehicle movements travelling to/from the MMAS, all sourced from the east via Mandalong Road.

2.2.3 Proposed traffic on Mandalong Road

As part of construction activities within the subject land, the forecast additional daily and peak hourly traffic movements including plant and equipment and construction materials deliveries and the removal of waste from site clearing will be up to 10 daily light vehicle visits (maximum 20 daily light vehicle movements) and up to 15 daily heavy vehicle deliveries (maximum 30 daily heavy vehicle movements).

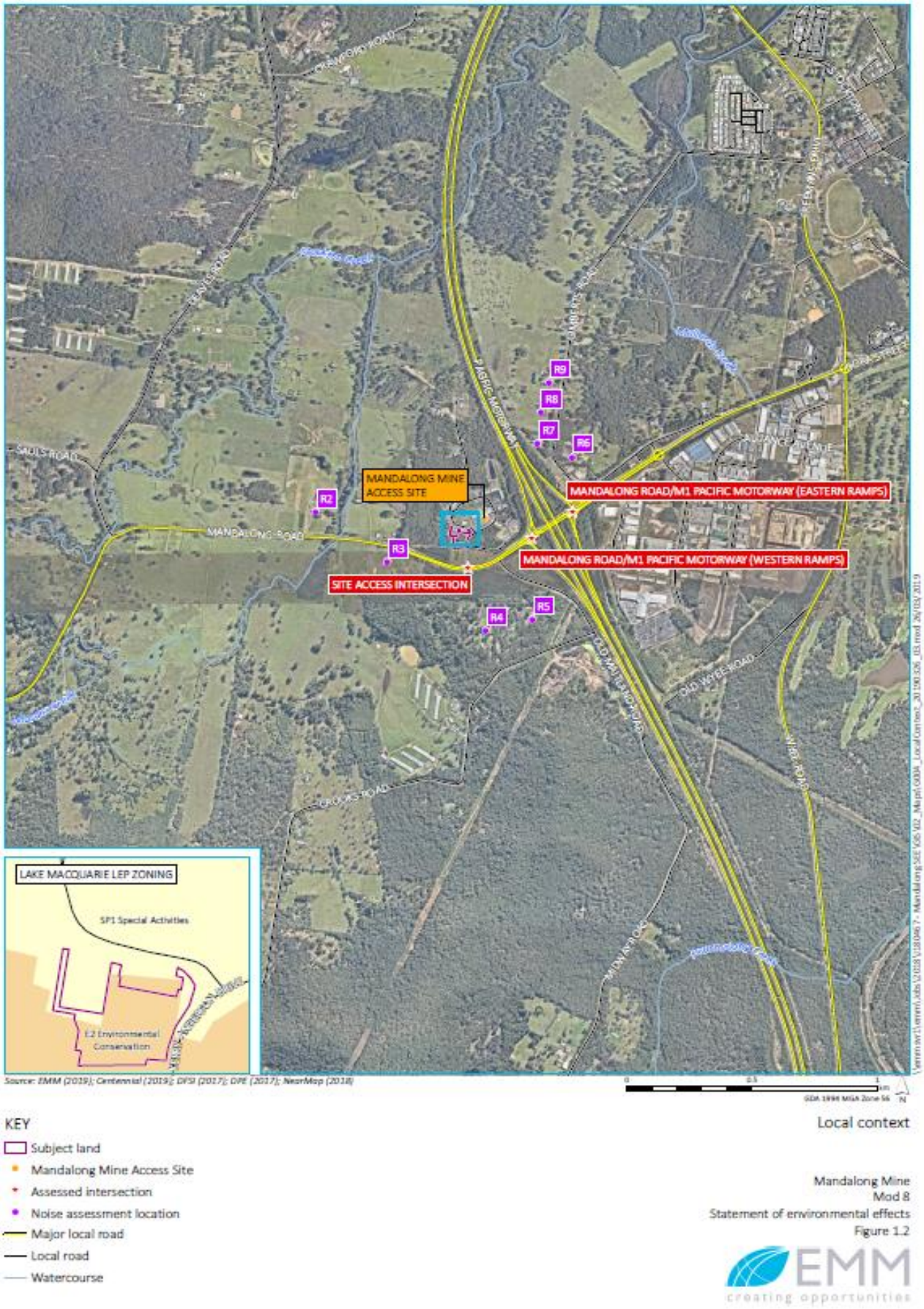

Figure 1 Existing Road Network

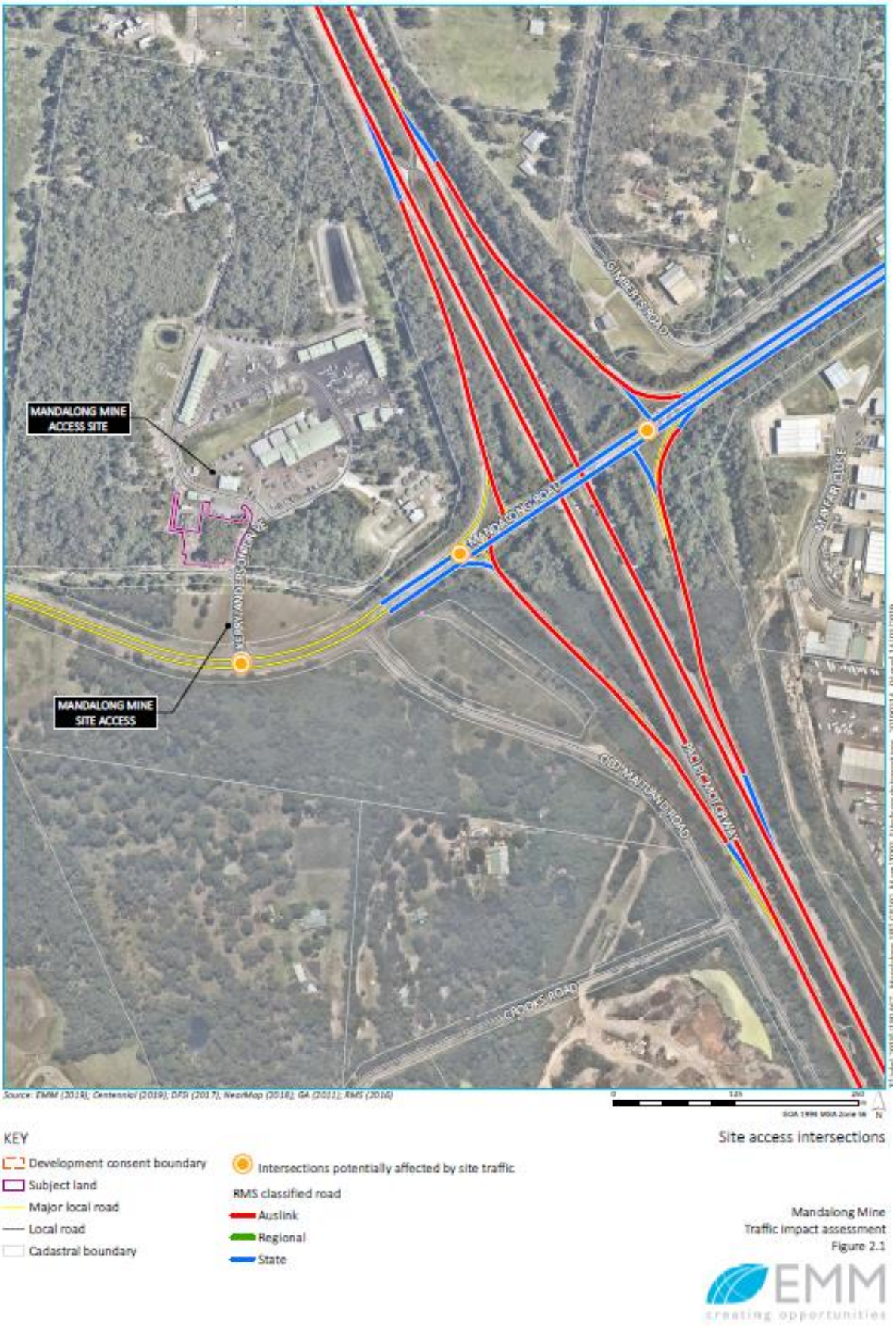

Figure 2 Site Access Intersections

3 Traffic Management Activities and Controls

3.1 Traffic Management for the Works

The aim of the plan is to minimise the impacts of the construction work on the local road network and ensure suitable safe conditions throughout the construction period. Key components of the CTMSP that will be included in the plan, specific to the Construction Zone include;

- **Vehicle Movement Plan (VMP)** – the VMP is required to ensure that traffic associated with the works can safely manoeuvre in and around the work sites and stockpile areas. The VMP for the works will also consider and include pedestrian movements for each site.

3.2 Working Hours

All construction activity will occur between the standard hours of 7.00 am to 6.00 pm Monday to Friday and 8.00 am to 1.00 pm on Saturday (no construction on Sundays or public holidays). Exceptions to this include emergency works or delivery of equipment or materials outside of standard hours as requested by police or other authorities for safety reasons.

3.3 Parking

Construction parking for the vehicles associated with the sub station upgrade will be available at the Mandalong Mine Access Site **(Figure 3)**. The main MMAS carpark has capacity for up to 10 vehicles within the currently provisioned 50 contractor carparks.

3.4 Deliveries, Loading and Unloading Zones

Where possible the transport routes for the delivery of materials will be via the M1 Motorway. Transport routes on Mandalong road to the west of the MMAS are to be avoided.

There will be limited use of over-dimensional vehicles and this will only occur during the construction period. Prior to the use of an over – dimensional vehicle, the contractor will provide a copy of their NHVR permit.

Trucks transporting gravel / sand into the Construction Zones or spoil from the Construction Zone will be required to cover their loads to eliminate dust during transport.

Trucks and construction plant are to be turned off when not in use. All loading and unloading will be undertaken on site within the MMAS and not on any of the public roads.

Truck movements around the site are to be minimised and are to limit the use of compression release engine braking.

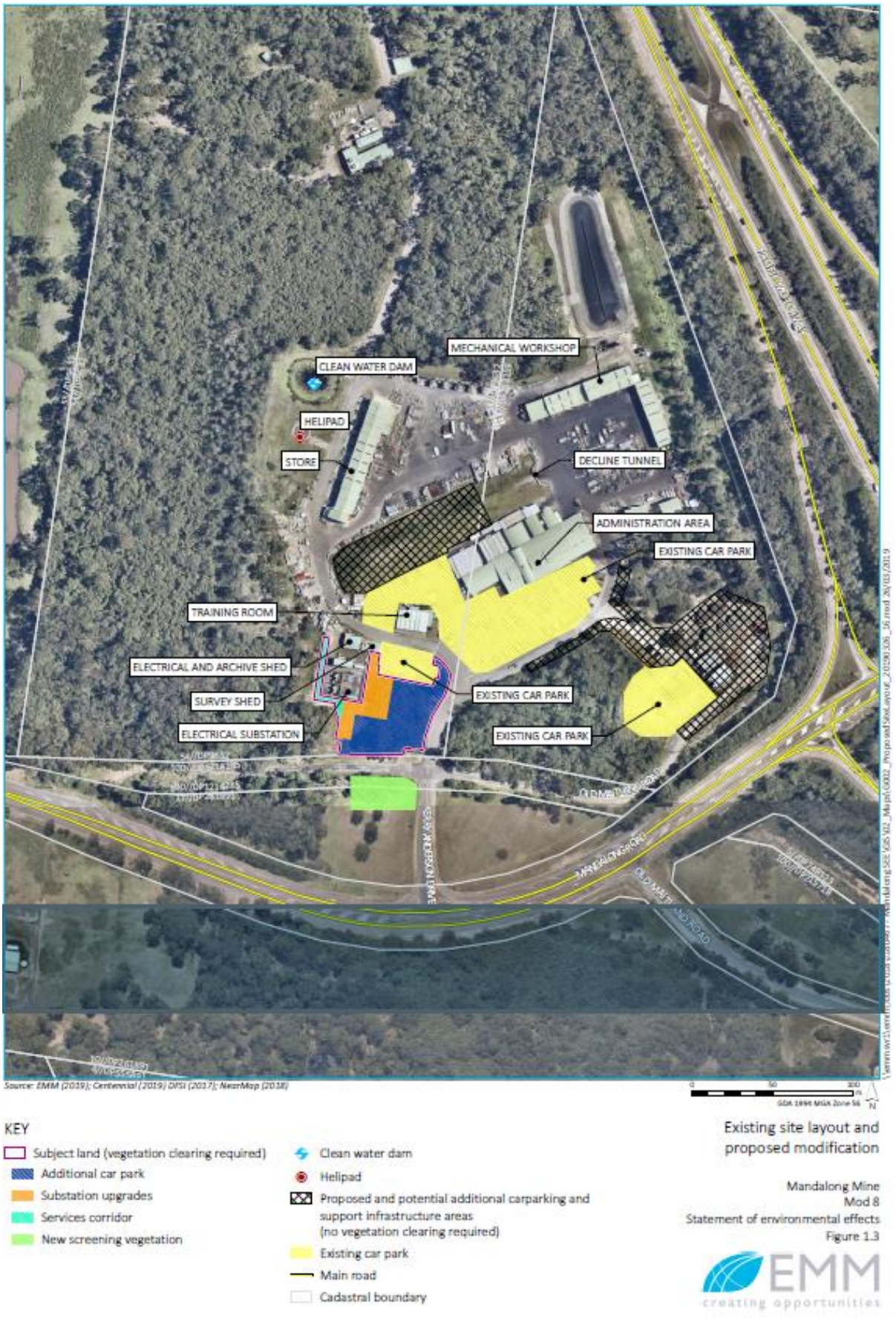

Figure 3 Existing Site Layout and Proposed Modification

3.5 Ongoing Monitoring and Repair of Roads

Regular monitoring of Mandalong Road and emergency maintenance is to be undertaken during the construction works. Daily inspections, during construction, of the condition of Mandalong Road between the M1 Motorway and the site entrance will identify new road damage or an increase in the extent of existing damage (refer to **Table 6-1**). Centennial Mandalong will report damage requiring repair through the existing LMCC process as detailed in **Section 6.3**.

3.6 Mitigation measures

Table 3-1 contains a summary of the traffic management measures to be undertaken and assigns management responsibility for each.

Table 3-1 Mitigation measures

Issue	Measure	Management Responsibility
Safety and amenity of road users on public roads to the various access points	Site induction required by all construction personnel will include training in the Construction Traffic Management Plan and the Drivers' Code of Conduct. Copy of the Drivers' Code of Conduct to be sent to any suppliers when ordering goods to be delivered. Plant and equipment selection for use on the project will consider acoustic performance, and will be fitted with silencers where practical.	Contractor's Project Manager Contractor's Project Manager
Limit noise	Construction work and delivery traffic only permitted during approved times: • Monday to Friday 7am to 6pm; • Saturday 8am to 1pm. Note: site personnel arriving and leaving the Work site will be before and after these times. Plant and equipment selection for use on the project will consider acoustic performance, and will be fitted with silencers where practical. Trucks to limit the use of compression release engine braking. Trucks and construction plant to be turned off when not in use. Develop routes for the delivery of materials and parking of vehicles to minimise noise; Minimise the movement of materials and plant and unnecessary metal on metal contact; Minimise truck movements.	Contractor's Project Manager

Issue	Measure	Management Responsibility
Limit dust	Suitable onsite car parking areas to be provided for construction traffic. Trucks transporting gravel / sand into the Construction Zones or spoil from the Construction Zone will be required to cover their loads to eliminate dust during transport.	Contractor's Project Manager
Damage to Mandalong Road	Regular monitoring of road and emergency maintenance is to be carried out during construction works as required. Follow LMCC procedure for reporting road and drainage issues.	Contractor's Project Manager Centennial Project Manager

4 Roles and Responsibilities

Roles and responsibilities for implementation of traffic management during construction are described below in **Table 4-1**. The individual responsibilities listed are in addition to those already specified in the CEMP.

Table 4-1 Roles and Responsibilities for Traffic Management during Construction

Role	Responsibility
Centennial Project Manager	The responsibilities of the Centennial Project Manager include (but are not limited to) the following: • Liaising with the Centennial Environmental Representative and government authorities as required regarding traffic management issues; • Liaising with the community and deal with complaints; • Arranging for incident investigation if required in accordance with HSMS-SE-1030 (Centennial Mandalong Incident Investigation System); • Monitoring contractor performance; • Following the LMCC procedure for reporting damage to roads and drainage in the event that damage to Mandalong Road is discovered during inspections or as a result of a complaint; • Reporting of any incidents or consent non-conformances to the Secretary as required by Schedule 6, Condition 10; • Meet with Centennial Environmental Representative and the Contractor's Project Manager at least weekly to discuss any issues with environmental management on-site, any amendments to plans that might be required or any new / changes to construction activities. • Maintain regular contact with the Centennial Mandalong Operational Management Team to ensure all parties are aware of construction activities and issues that may impact operational activities at Mandalong Mine or vice versa.
Centennial Environmental Representative	The responsibilities of the Centennial Environmental Representative include (but are not limited to) the following: • Ensuring that the CTMSP is reviewed in accordance with **Section 1.4**; • Meet with Centennial Project Manager and the Contractor's Project Manager and at least weekly to discuss any issues with environmental management on-site, any amendments to plans that might be required or any new / changes to construction activities. • Maintain regular contact with the Centennial Mandalong Operational Management Team to ensure all parties are aware of construction activities and issues that may impact operational activities at Mandalong Mine or vice versa. • Act as main point of contact with regulatory agencies regarding Project environmental and community issues and report as required to regulatory agencies such as EPA, Resources Regulator and DPIE.
Contractor's Project Manager	The traffic responsibilities of the Contractor's Project Manager include (but are not limited to) the following: • Managing the implementation of the Construction Traffic Management Plan;

Role	Responsibility
	• Ensuring that all Project personnel receive appropriate training regarding the management of traffic during construction; • Preparation of VMPs as required; • Managing the inspection and maintenance of the traffic control measures; • Ensuring Contractor construction activities comply with relevant licences, approval limits and permits for the Project; • Ensuring legislative requirements are clearly defined and communicated to the Contractor's Project Team and sub-contractors; • Scheduling construction work and delivery traffic during permitted times only (Monday – Friday 7am to 6pm and Saturday 8am to 1pm); • Investigating, providing advice and reporting on Contractor-related traffic safety incidents and accidents (including damage to public roads) quickly and effectively to the Centennial Coal Project Team and taking disciplinary action as required; • Selecting plant and equipment for use on the project with consideration to acoustic performance; • Ensuring the induction required by all construction personnel includes training in the Construction Traffic Management Plan and Drivers' Code of Conduct; • Arranging for a copy of the Drivers' Code of Conduct to be sent to any suppliers when ordering goods to be delivered; • Arranging for water carts to spray exposed surfaces in the Construction Zone to prevent dust; • Requiring that trucks transporting gravel / sand into the Construction Zone or spoil from the Construction Zone are covered to eliminate dust during transport; • Assisting the Centennial Project Manager and Centennial Environmental Representative with liaising with the community and deal with complaints; • Stopping work immediately if an unacceptable impact on local traffic is likely to occur; • Daily inspection of public roads as noted in **Section 3.5** to identify new road damage or increase in the extent of existing damage, as well as driver compliance with Drivers' Code of Conduct; • Controlling field works and implementing effective traffic controls during the works; and • Providing assistance and advice to all Project personnel to fulfil the requirements of this CTMSP; • Inform the Centennial Project Manager of any breaches of the Drivers' Code of Conduct and take appropriate action; and • Meet with Centennial Project Manager and Environmental Representative, at least weekly to discuss any issues with environmental management on-site, any amendments to plans that might be required or any new / changes to construction activities.
Wider Project Team (including all Centennial and Contractor	The traffic responsibilities of the wider Project Team include (but are not limited to) the following: • Undertaking any traffic control duties as instructed by the Contractor's Project Manager, Contractor's Project Engineer or Foreman/Leading Hand;

Role	Responsibility
construction personnel)	• Undertaking all activities in accordance with the requirements of this CTMSP; and • Informing supervisors of any traffic management issues, incidents or breaches of the Drivers' Code of Conduct as they arise.
Drivers (light and heavy vehicles)	• Follow the requirements of the Drivers' Code of Conduct; • Report road condition deterioration to a Centennial or Contractor Manager; • Limiting truck compression release braking; • Construction work and delivery traffic only permitted during approved times (Monday to Friday 7am to 6pm and Saturday 8am to 1pm). Note: site personnel arriving and leaving the Work site will be before and after these times; • Drivers transporting gravel / sand into the Construction Zone or spoil from the Construction Zone to cover their load to eliminate dust during transport.

5 Communication

5.1 Internal Communication

The Centennial Environmental Representative, Centennial Project Manager and Contractor's Project Manager will meet at least weekly to discuss any issues with environmental management on-site, any amendments to plans that might be required or any new / changes to construction activities.

5.2 Communication with Centennial Mandalong

The Centennial Environmental Representative and the Centennial Project Manager will maintain regular contact with the Centennial Mandalong Operational Management Team to ensure all parties are aware of construction activities and issues that may impact operational activities at Mandalong Mine or vice versa.

5.3 Agency Communication

The Centennial Environmental Representative will be the main point of contact with regulatory agencies regarding Project environmental and community issues. The Contractor's Project Manager will be responsible for reporting on the ongoing environmental performance of the project to the Centennial Environmental Representative, who in turn, will have the responsibility to report to regulatory agencies such as EPA, Resources Regulator and DPIE.

5.4 Community and other stakeholder communication

Mandalong Mine operates a Community Consultative Committee (CCC) to keep the community informed about operational, environmental and community issues associated with the Mine. The CCC meets on a regular basis and includes representatives form Centennial Mandalong, community groups and other members of the local community. Information typically reported at CCC meetings includes:

- Progress at the mine – operational issues;
- Monitoring and environmental performance; and
- Community complaints and the response to complaints.

Throughout the duration of the Project, the Centennial Environmental Representative and Centennial Project Manager will also be required to attend these meetings to provide an update on construction activities and field any construction-related questions from CCC members. Where required, the Centennial Project Manager or Centennial Environmental Representative will then provide feedback to the Project team members regarding Project-related community issues or concerns.

The local community will also be kept informed of construction progress in the Mandalong Mailbox which is a regular newsletter produced by the Mine.

5.5 Complaints and Enquiries

Mandalong Mine has a community information number (**1800 730 919**) that can be called to make an enquiry or to lodge a complaint regarding construction, traffic or operational activities. The number is advertised at the entrance to the Mandalong Mine, in community newsletters to landowners, in the yellow pages and in the local media (Lake's Mail Newspaper). It can also be found on the Company's website (http://www.centennialcoal.com.au/Contact/Contact-Us.aspx).

Complaints are lodged by calling the 24-hour number and providing details of the complaint to the Mine's Control Room Operator. Mine personnel will record the details of complaints and inquiries and respond in accordance with the Mine's procedure *"WP1371 - Dealing with Community Complaints and Enquiries"*.

The details of investigations, mitigation actions and follow-up liaison with the complainant will be maintained in the Mandalong Mine complaints register referred to as the Environment and Community Database (ECD). Centennial makes available a summary of recorded complaints, excluding confidential landowner information, to the Community Consultative Committee and relevant Government agencies. A copy of the Mandalong Mine complaints register will also be made available on the Centennial Coal website.

5.6 Training

5.6.1 Inductions

All Project personnel (including Sub-contractors) are required to attend a compulsory site induction that includes an environmental component, prior to commencement onsite. This is to ensure all personnel are aware of the requirements of the EMS and associated management measures (including this CTMSP). Short-term visitors to site for purposes such as deliveries will be required to be under the control of inducted personnel at all times. A copy of the Drivers' Code of Conduct will be sent to all suppliers when ordering goods to be delivered.

The site induction and training process for Project personnel (including Sub-contractors) will outline the key requirements of this CTMSP, including but not limited to:

- The key traffic issues and measures, as outlined in Section 3;
- The requirements of the Drivers' Code of Conduct;
- Providing clear instructions to personnel in regard to the use of local public roads and access to site and
- Outlining expectations for appropriate behaviour toward traffic management.

During construction works, all personnel involved will have access to a copy of this CTMSP.

5.6.2 Toolbox Talks

Toolbox meetings will be conducted regularly to maintain and improve awareness of traffic issues. All Project personnel will be provided with a toolbox talk on relevant traffic issues prior to commencement of works. A toolbox meeting will also be held in the event of a non-conformance with this CTMSP. It will be responsibility of the Contractor's Project Manager to deliver toolbox talks relevant to traffic management issues.

6 Monitoring and Response

6.1 Monitoring

The implementation of traffic management requirements will be monitored and records kept of inspections. **Table 6-1** details the proposed traffic monitoring during the construction phase.

Table 6-1 Summary of Traffic Monitoring during Construction

Type of monitoring	Purpose and Scope	Frequency/Trigger	Reporting	Personnel / Responsibility
Set-out of Traffic controls	All signs and controls to be set-out as required by the approved Traffic Control Plan	Undertaken at the start of construction	N/a	Contractor's Project Engineer
Operational inspection	Traffic management controls at the Construction Zone and any others along driveway access points	Daily	Traffic control checklist	Contractor's Project Engineer
Road Condition inspection	New damage or increase in extent of existing damage to public roads	Daily	Report to Contractor Project Manager	Contractor's Project Engineer
Implementation of Drivers Code of Conduct	Driver awareness of Drivers' Code of Conduct and compliance with requirements	Daily	Traffic control checklist	Contractor's Project Engineer
Pre-opening inspection	Inspection of new work at driveway access points	Prior to putting traffic on any new work	Record of inspection and any LMCC requirements	Contractor's Project Engineer
Hydrocarbon spills	Identify any hydrocarbon spills that can be attributable to the Project	Weekly	Report to Centennial Environmental Representative for action	Contractor's Project Engineer

6.2 Trigger Action Response Plans

A TARP has been developed to summarise the actions and response to be implemented as part of this CTMSP (refer to **Table 6-2**).

The system for managing complaints is included in **Section 5.5**.

Table 6-2 TARP

Trigger	Action	Response
Traffic safety incident or accident on public road involving construction vehicle(s).	Engage emergency response plan if required. Conduct incident investigation as per HSMS-SE-1030 (Centennial Mandalong Incident Investigation System).	Inspection of all traffic control devices. Review of TCP.
Dust complaints.	Cease work in area and use watercart to settle dust. Confirm if this is a Development Consent non-conformance.	Inspect and review work methods. In case of non-conformance refer to **Section 7.2**
Noise complaints.	Remove equipment from service, repair and check emission before being used. Reduce duration of noisy activities or co-ordinate to a different time of day. Confirm if this is a Development Consent non-conformance.	Inspect and review work methods. In case of non-conformance refer to **Section 7.2**
Complaints about condition of traffic area in Construction Zone.	Undertake repairs to roadway within current shift.	Continue daily inspections.
Mud/debris deposited on public roads.	Section of road to be swept and/or watered.	Contractor to investigate source and mitigate as needed.
Hydrocarbon spill attributable to the Project.	Report to Centennial Environmental Representative and engage Centennial Pollution Incident Response Management Plan.	Implement the Centennial Pollution Incident Response Management Plan.
Complaints about damage to public roads, or damage discovered during inspection.	Inspect area. Implement traffic control if urgent.	Follow LMCC procedure for reporting road and drainage issues – call Customer Service Centre (02 4921 0333) and report issue (this is 24 hrs for urgent repairs) or via LMCC website as per Section 6.3
Breach of Drivers' Code of Conduct	Inform driver of breach and report to Contractor's Project Manager.	Contractor's Project Manager will investigate the reason for the breach and determine appropriate disciplinary action in consultation with Centennial Project Manager.

6.3 Procedure for Reporting Road Damage

The Centennial Environmental Representative or Centennial Project Manager will report road damage on public roads to LMCC through Council's process. This is:

- Phone Council's Customer Service Centre on 02 4921 0333; or
- Complete the online feedback form (https://www.lakemac.com.au/council/report-an-issue/road-and-drainage-damage).

Council will address the report by:

- Erecting signage and appropriate safety measures when required; and/or
- Arranging for repair of the road.

Note: Council's road network has different hierarchies for roads according to traffic volumes. The hierarchy of a road determines the response time for road repairs including unplanned maintenance.

For urgent repairs the Contractor's Project Manager will contact the 24-hour emergency line on 02 4921 0333. If required and as advised by Council, Centennial will install signage until Council can attend to the issue.

7 Incidents and Emergencies

Incidents relating to traffic may include, but are not limited to:

- Excessive dust or noise;
- Traffic accident and
- Public road damage.

7.1 Emergency Contacts and Response

In the event of an incident or emergency, key Project personnel are to be contacted on the numbers listed in **Table 7-1** .

Table 7-1 Emergency Contacts

Role	Contact Details
Mandalong Mine Control Room (24 hrs)	02 4973 0901
Centennial Mandalong Mine Manager	02 4973 0911
Centennial Project Manager	02 4973 0922
Centennial Environmental Representative	02 4973 0947
Centennial Health and Safety Representative	02 4973 0937
Contractor's Project Manager	TBA
Lake Macquarie City Council Emergency Road Works (24 hrs)	02 4921 0333

7.2 Incident Response

Incident response during construction will be undertaken in accordance with Centennial Mandalong's Incident Investigation System (HSMS-SE-1030), which outlines the process and level of internal notification, investigation and reporting for all environmental and health and safety incidents at the Mandalong Mine.

In the case of a 'pollution incident' (see definition below), the response will also be undertaken in accordance with the Centennial Pollution Incident Response Management Plan (PIRMP).

A pollution incident is defined as:
… an incident or set of circumstances during or as a consequence of which there is or is likely to be a leak, spill or other escape or deposit of a substance, as a result of which pollution has occurred, is occurring or is likely to occur. It includes an incident or set of circumstances in which a substance has been placed or disposed of on premises, but it does not include an incident or set of circumstances involving only the emission of any noise (EPA, 2013).

It is the responsibility of all Project personnel to report any known or suspected pollution incidents to the Contractor's Environmental Manager immediately. It is then the responsibility of the

Contractor's Environmental Manager to ensure any contractor-related pollution incidents are reported to the Centennial Environmental Representative.

7.3 External Incident Reporting

Environmental reporting to external agencies is a legislative requirement under the Protection of the POEO Act, the EP&A Act, the Mining Act 1992 and the EPBC Act. Should the incident response identify that external reporting (or notification) is required; such reporting will be undertaken in accordance with Pollution Incident Response Management Plan, Centennial Coal's External Environmental Reporting Standard (Management Standard 012) and SSD-5144 requirements.

8 References

Australian Standards. (2018). *AS 2890.2 Parking facilities - Off-street commercial vehicle facilities.*

Centennial Coal. (2016). *Noise Management Plan - Northern Region.*

EMM. (2019). *Traffic Impact Assessment, Mandalong Mine - Modification to SSD-5144.*

NSW Planning. (2007). *Guidelines for Establishing and Operating Community Consultative Committees for Mining Projects.* Department of Planning.

NSW Roads and Maritime Services. (2018). *Traffic Control at Work Sites.*

Resources Regulator. (2013). *ESG3: Mining Operations Plan (MOP) Guidelines September 2013.* Department of Planning, Industry and Environment.

9 Appendices

Appendix A - DRIVERS' CODE OF CONDUCT

Centennial Mandalong will engage the Principal Contractor for the upgrade of the electrical sub station and car park extension located at Mandalong Mine Access Site. For the Project, a Construction Traffic Management Plan (CTMSP) has been developed and approved by the NSW Department of Planning, Industry and Environment (DPIE). This Drivers' Code of Conduct (DCC) is an important part of the CTMSP and applies to drivers of both light vehicles and heavy vehicles involved in the construction of the Project.

An Information Guide for Drivers plan is included on the back page of this DCC highlighting key points along Mandalong Road from the M1 Motorway interchange

All light and heavy vehicle drivers involved in the construction are required to comply with this DCC. Failure to do so will result in disciplinary action.

Hours of Operation
Construction work and delivery traffic only permitted during approved times which are:

- Monday to Friday 7am to 6pm;
- Saturday 8am to 1pm.

Heavy vehicles must not travel west along Mandalong Road from the Mandalong Mine Access Site during school bus hours:

- 7:45am to 8:15am; and
- 3:45pm and 4:15pm (school days).

During these times heavy vehicles should park opposite the Mandalong Mine Access Site (see the Information Guide to Drivers plan) or take an alternative route east via the M1 Motorway.

Driver Obligations – light and heavy vehicles

- Drivers must abide by posted speed limits, including within areas of reduced speeds (e.g road works and school zones).
- Drivers must take care of other road users, particularly pedestrians, bike riders and horse riders and slow down when approaching. Only overtake when it is safe to do so.
- Drivers must report any traffic incidents or traffic management issues to a Centennial or Contractor manager, coordinator or engineer as they arise.
- In the event of a spill, drivers must report the incident to a supervisor and clean up the spill.
- Drivers must obey all signage along public roads and in the Construction Zones.
- Drivers must not litter.
- Drivers must not use mobile phones when driving.
- Drivers must notify their employer if they are not fit for duty prior to commencing their shift.
- Drivers must at all times obey road transport laws.
- Drivers must obey the applicable driving hour's specific to the NSW legislation and take all reasonable steps to manage their fatigue and not drive with high levels of drowsiness.
- Drivers must practice and maintain safe load restraint practices.
- Drivers agree to notify their employer or operator immediately should the status or conditions of their driver's licence change in any way.

Driver Obligations – heavy vehicles only

- Trucks transporting gravel / sand onto the Construction Zone or spoil from the Construction Zone are required to cover their loads to eliminate dust during transport.
- Trucks to limit the use of compression release engine braking.

- Trucks and construction plant to be turned off when not in use.

Road Worthiness

- All vehicles operated by Centennial Mandalong, the Principal Contractor and its' sub-contractors must be maintained in a safe and roadworthy condition.

Regulations

- All vehicles are to be maintained in compliance to the appropriate Australian Vehicle Standards and Design Rules (AVSRs and ADRs).
- No driver will be required to drive a mechanically unsafe vehicle at any time.

Driver Health

- All drivers are to participate in the Principal Contractor's random health screen program.
- Drivers identified as 'Not Fit to Drive' must not be allowed to continue driving.

Management

- Centennial Mandalong, the Principal Contractor and its sub-contractors must conduct all business in a safe, professional and legal manner.
- Centennial Mandalong, the Principal Contractor and its sub-contractors as well as their employees must be familiar with and address their respective duty of care requirements in accordance with the applicable NSW Work Health and Safety legislation.
- Drivers must be afforded sufficient time to conduct trips in a legal, compliant and safe manner.
- Vehicle speed limiters will be maintained to the legal requirement as specified by ADR 65/00 and must in no way be tampered with.
- Vehicles will not, in any manner, be knowingly overloaded.
- All personnel must not, by their actions or requirements, force or coerce others to break the law.

Appendix B: Summary of LMCC & TfNSW Feedback on Traffic Management Sub Plan

Person ID	Submission	Response
TNSW	TfNSW has reviewed the Mandalong Mine CTMP, dated February 2020, and make the following comments: TfNSW recommend that any construction vehicles not enter of leave the site during the network peak of M1 Motorway or MR217, and also avoid the Mandalong Mine shift change peaks.	Centennial would like to highlight to TfNSW the small number of construction vehicles (as noted in the linked SEE - see section 4.2.3) and as per the following extract - *A maximum of 10 personnel will be required for each stage of construction (i.e. site clearing, site preparation and construction).* *It is forecast that there will be up to 10 daily light vehicle visits (maximum 20 daily light vehicle movements) and up to 15 daily heavy vehicle deliveries (maximum 30 daily heavy vehicle movements) for construction. Daily and peak hourly construction traffic movements will include plant, equipment and construction materials deliveries and the removal of waste from site clearing (if required).* and the TIA section 1.3 (pg. 107 of the SEE Appendix B - see link below) *the forecast additional daily and peak hourly traffic movements (including plant and equipment and construction materials deliveries) will be an order of magnitude lower than the forecast additional project operations traffic. Subsequently, a detailed intersection traffic capacity or impact assessment is not required for the proposed construction traffic.* We understand the reasoning behind your comments and most construction traffic for the project will indeed arrive in the AM between 6-7am (therefore avoiding the AM peak times), however, in the PM most construction traffic will leave site between 3:30pm - 4pm. It will be difficult for Centennial to alter the PM finishing times due to shift patterns without lengthening the standard day. Also, it is mainly the light vehicle movements that will be arriving and departing between 6-7am and after 3:30pm. The 15 heavy vehicle deliveries will likely be spread out randomly throughout the work day (between 7am and 3:30pm). Can you please let me know if TfNSW would be comfortable for the project traffic to avoid the AM peak, with the relatively small number of vehicles still departing the site during the and PM peak for the reasons outlined above.
TNSW	Thank you for the additional information provided in response to the TfNSW email dated 22 March 2020. TfNSW note that the number of construction vehicles during the construction phase are lower than the operational traffic resulting from the application, and therefore raise no objections to the additional construction	**Noted**

	vehicles coinciding with the PM shift change. If for any reason the construction traffic numbers increase substantially above those mentioned within your advice, it would be recommended that the construction traffic be staggered.	
TNSW	Mandalong Road west of the M1 Pacific Motorway is a local road. Mandalong Mine should comply with any direction from Lake Macquarie City Council.	**Noted**
LMCC	Email dated 30/04/20 from LMCC Traffic Engineer Assets Strategy. I have reviewed the Construction Traffic Management Plan and have no objections to the plan.	**Noted**