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Deanne Forrest
Project Director M12
Sydney Infrastructure Development
Infrastructure and Place
Transport for NSW
Level 7 27-31 Argyle Street
Parramatta NSW 2150

3 April 2024

Ref: M12W SEMP Rev 06

Dear Deanne,

RE: ER Approval of Minor Amendment M12 Motorway West – Site Establishment Management Plan Revision 06

Thank you for providing the following document for Environmental Representative (ER) approval of minor amendments as required by the Condition of Approval A34 (i) of the M12 Motorway approval (SSI 9364):

- M12 Motorway West – Site Establishment Management Plan Revision 06

I have reviewed the minor amendments made to the document by CPBGG JV. Changes include the re-addition of Crushing and Screening Activity to AF2, consistent with Amendment Report.

As an approved ER for the M12 Motorway project, I am satisfied the minor amendments to re-add the activity to the existing Ancillary Facility does not increase the impacts to nearby sensitive receivers, is consistent with the terms of the approval and project documents. Therefore, I approve the minor amendments to the subject Site Establishment Management Plan.

Yours sincerely

George Kollias
Environmental Representative – M12 Motorway

Appendix B10
Site Establishment Management Plan

M12 Motorway West SSI-9364

Project number:	N81151
Document number:	M12WCO-CPBGGJV-ML1-SP-PLN-000001
Revision date:	3/04/2024
Revision:	06

Details of Revision Amendments

Document Control

The Project Director is responsible for ensuring that this plan is reviewed and approved. The Project Director is responsible for updating this plan to reflect changes to construction, legal and other requirements, as required.

Amendments

Any revisions or amendments must be approved by the Project Director and/or client before being distributed / implemented.

Revision Details

Rev	Date	Reviewed By	Details
A	18/02/2022	A. Zvirzdinas	First Draft
B	06/05/2022	A. Zvirzdinas	Second Draft to address Arcadis/TfNSW review comments
C	27/05/2022	A. Zvirzdinas	Third Draft following full TfNSW/Arcadis review and comment
D	17/06/2022	A. Zvirzdinas	Fourth Draft following TfNSW/Arcadis/ER review and comment on Rev C.
D1	21/06/2022	A. Zvirzdinas	Minor amendment to Table 1-1, 1-2 and Appendix F.
00	23/06/2022	A. Zvirzdinas	Final and approved version
01	10/02/2023	P. Matevski	Six-monthly review and addition AF17 to facilitate crushing activities at chainage 12800.00
E	25/05/2023	A.Brajlih	Addition of additional Crushing location CAF 001 – CAF 007
02	30/05/2023	A.Brajlih	Second Controlled Issue
03	13/09/2023	A.Brajlih	Third Controlled Issue
04	30/10/2023	A.Brajlih	Forth Controlled Issue
05	23/11/2023	A.Brajlih	Fifth Controlled Issue
06	22/02/2024	T. Chezzi	Inclusion of additional crushing location

Document Review

Position	Name	Signature	Date
Project Director	Nick Fryday		3/04/2024

3/4/24

Distribution of controlled copies

Copy no.	Issued to	Version

Table of Contents

Acronyms and Abbreviations

Abbreviations	Expanded text
Approved Extended Hours	1.00pm to 6.00pm Saturdays allowable under NSW CoA E34, beyond standard construction hours as per the *Interim Construction Noise Guideline*.
Ancillary Facility	A temporary facility for construction of the Project including an office and amenities compound, construction compound, materials storage compound, maintenance workshop, testing laboratory and material stockpile area.
AR	Amendment Report
ARSR	Amendment Report Submissions Report
BC Act	*Biodiversity Conservation Act 2016*
CEMP	Construction Environmental Management Plan
CEMS	Contractors Environmental Management System
CFFMP	Construction Flora and Fauna Management Sub-plan
CLM Act	*Contaminated Land Management Act 1997*
CoA	Conditions of Approval. NSW CoA refers to the CSSI 9364 approval, Commonwealth CoA refers to EPBC 2018/8286 Approval.
CPBGG JV	CPB Contractors and Georgiou Group Joint Venture
CSEP	Community and Stakeholder Engagement Plan
CSSI	Critical State Significant Infrastructure
DAWE	Commonwealth Department of the Water, Agriculture and Environment
DPE	NSW Department of Planning and Environment (formerly DPIE)
DPIE	NSW Department of Planning, Industry and Environment
Early Works	Works specified in Appendix B of the Infrastructure Approval which are required to be approved under an Early Works Environmental Management Plan required under Condition A24.
EIS	Environmental Impact Statement
EMS	Environmental Management System
Environmental aspect	Defined by AS/NZS ISO 14001:2015 as an element of an organisation's activities, products or services that can interact with the environment.
Environmental Assessment Documentation	All environmental documentation including the EIS, Amendment report, Submissions report and all supplementary reports
Environmental Representative (ER)	A suitably qualified and experienced person independent of project design and construction personnel employed for the duration of construction. The principal point of advice in relation to all questions and complaints concerning environmental performance.
EPA	NSW Environment Protection Authority
EP&A Act	*Environmental Planning and Assessment Act 1979* (NSW)
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999*

Abbreviations	Expanded text
EPL	Environmental Protection Licence
ESM	Environment and Sustainability Manager (TfNSW)
ESCP	Erosion and Sediment Control Plan
ESR	Environmental Site Representative (CPBGG JV)
EWMS	Environmental Work Method Statements
Highly Noise Affected	Highly noise affected level represents the point above which there may be strong community reaction to noise (above 75 dB(A)) as defined in the ICNG (EPA, 2009)
Highly Noise Intensive Works	Works which are defined as annoying under the Interim Construction Noise Guideline (DECC, 2009) including: ▪ Use of power saws, such as used for cutting timber, rail lines, masonry, road pavement or steel work ▪ Grinding metal, concrete or masonry ▪ Rock drilling ▪ Line drilling ▪ Vibratory rolling ▪ Bitumen milling or profiling ▪ Jackhammering, rock hammering or rock breaking ▪ Impact piling.
Hold point	Is a verification point that prevents work from commencing prior to approval from TfNSW and CPBGG JV
ICNG	*Interim Construction Noise Guideline* (Environment Protection Authority, 2009)
Minister, the	Minister of the NSW Department of Planning, Industry and Environment (or delegate)
Noise Affected	Where noise affected management level represents the level above which there may be some community reaction to noise, as defined in the ICNG (EPA, 2009).
Non-conformance	Failure to conform to the requirements of Project system documentation including this CEMP or supporting documentation.
NSW CoA	NSW Conditions of Approval
NVIS	Noise and Vibration Impact Statement
OCS	Overarching Communication Strategy
OOHW	Out-of-hours work
POEO Act	*Protection of the Environment Operations Act 1997* (NSW)
Principal, the	TfNSW Services
Project, the	M12 Motorway Project West Section
Primary CoA/REMM	CoA/REMM that are specific to the development of this Plan
QA	Quality Assurance

Abbreviations	Expanded text
REMM	Revised Environmental Management Measures
Resource	Resource covers energy, fuel, oil, water, and other materials used for construction of the Project
SAP	Sensitive Area Plan
SDS	Safety Data Sheet
Secondary CoA/REMM	CoA/REMM that are related to, but not specific to, the development of this Plan
Secretary	Secretary of the DPE, or delegate
SEMP	Site Establishment Management Plan
Standard Working Hours	As defined by the *Interim Construction Noise Guideline*: Monday to Friday 07:00am to 6:00pm Saturday 8:00 am to 1:00 pm At no time on Sunday or public holidays
TfNSW	Transport for New South Wales (formerly Roads and Maritime Services (RMS))
WHSMP	Work Health and Safety Management Plan
WSIA	Western Sydney International Airport

1 Introduction

1.1 Context

This Site Establishment Management Plan (SEMP or Plan) forms a Sub-plan to the Construction Environmental Management Plan (CEMP) for the M12 Motorway West (the Project) works.

This SEMP has been prepared to address the requirements of the NSW Minister's Conditions of Approval (CoA), Commonwealth CoA, the environmental management measures detailed in the M12 Motorway Environmental Impact Statement (EIS), Revised Environmental Management Measures (REMMs) detailed in the Amendment Report Submissions Report (ARSR), and all applicable legislation and Transport for New South Wales (TfNSW) Specifications.

1.2 Background and Project description

TfNSW is planning to construct and operate the M12 Motorway to provide direct access between the Western Sydney International Airport (WSIA) at Badgerys Creek and Sydney's motorway network. The M12 Motorway will run between the M7 Motorway at Cecil Hills and The Northern Road at Luddenham for about 16 kilometres and is expected to be opened to traffic prior to opening of the WSIA.

Approval for the Project under the EP&A Act was granted by the Minister for Planning on 23 April 2021. Approval for the Project under the EPBC Act was granted by the Federal Minister for the Environment on 3 June 2021. The project must be carried out in accordance with the terms of the NSW and Federal Approvals.

The M12 West Motorway Project (the Project) involves construction of a new approximately 6km of dual carriageway motorway predominantly through greenfield area between The Northern Road, Luddenham and approximately 250m east of Badgerys Creek, including WSIA Interchange and Elizabeth Drive Interchange. The works are within the Liverpool and Penrith City Councils (Council) local government areas (LGA). CPB Contractors and Georgiou Group Joint Venture (CPBGG JV) have been awarded the contract for the Project by TfNSW as a construct only contract.

Features of these Works include:

- Construction of 6km of dual carriageway motorway predominantly through greenfield area between The Northern Road, Luddenham and approximately 250m east of Badgerys Creek.
- Construction of 11 bridges.
- A grade-separated interchange referred to as the Western Sydney International Airport interchange, including a dual-carriageway four-lane airport access road (two lanes in each direction for about 1.5 kilometres) connecting with the Western Sydney International Airport Main Access Road.
- Connection to the signalised at grade intersection at The Northern Road with provision for grade separation in the future as part of the future Outer Sydney Orbital.
- Realignment and duplication of approximately 1,500m of Elizabeth Drive with a new bridge over the Airport Access Road and Metro Rail corridor including associated utility adjustments.
- A four-way signalised intersection east of Airport Access Road.
- A left-in/left-out intersection west of Airport Access Road.
- A signalised single point interchange with north facing ramps from Elizabeth Drive to M12 and south facing ramps from Elizabeth Drive to Airport Access Road.

Further details of the Project are included in section 1.3 of the CEMP.

1.3 Scope of the Plan

Ancillary facilities are required to support construction of the Project. Two (2) types of ancillary facilities are defined in the NSW Infrastructure Approval:

- Minor Ancillary Facility: Lunch sheds, office sheds, portable toilet facilities, and the like that meet the requirements of NSW CoA A20
- Construction Ancillary Facility: a "temporary facility for construction of the CSSI including an office and amenities compound, construction compound, material crushing and screening plant, concrete

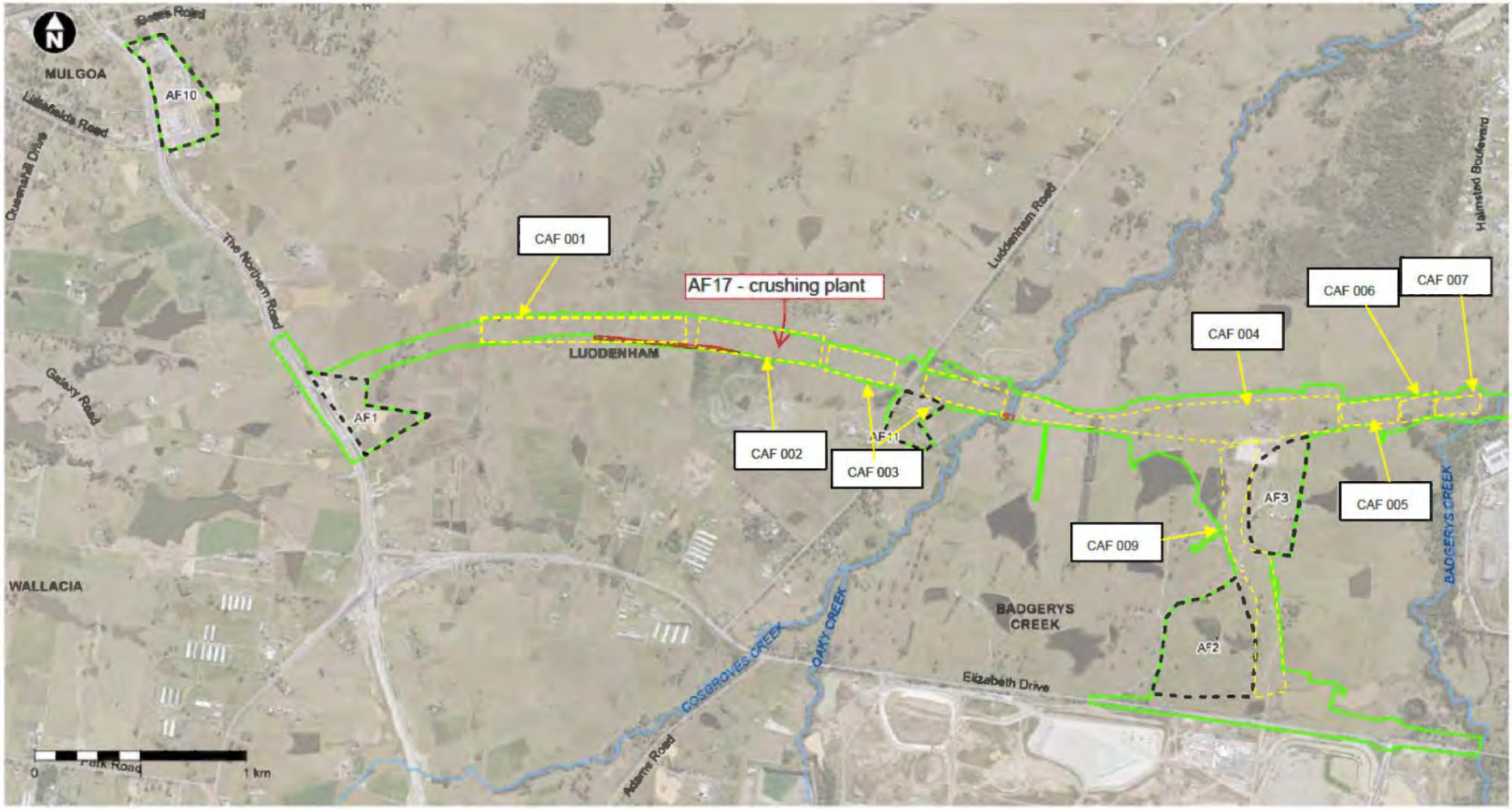
and asphalt batching plant, materials storage compound, maintenance workshop, testing laboratory, material stockpile area, access and car parking facilities and utility connections to the facility."

Before establishment of any new or amended construction ancillary facilities, CPBGG JV will assess the ancillary facility in accordance with NSW CoA A15 and the Environment Assessment Documentation.

This SEMP is related to the construction phase of the project only and outlines the environmental management practices and procedures to be implemented for the establishment of construction ancillary facilities for the M12 Motorway Project in accordance with NSW CoA A16. The operation of ancillary facilities during construction will be covered by the Construction Environmental Management Plan (CEMP), in accordance with NSW CoA A19. A number of minor ancillary facilities will be established throughout the project (eg. At bridge locations or remote staging areas) provided they comply with condition A20. These facilities will be approved by the ER via the TfNSW G36 hold point processes.

The Environmental Assessment Documentation for the Project identified a number of compounds and ancillary facilities that will be required for the construction of the Project, including locations for hardstand areas, temporary building and offices, parking areas, material laydown and storage areas. A total of nine (9) ancillary facilities were proposed in section 5.24.3 of the EIS. An additional nine (9) ancillary facilities to those nominated in the EIS were proposed in section 4.1.2 of the Amendment Report. The refined location of the ancillary facilities, which are included as Appendix A4 of the OCEMP, are shown below in Figure 1-1 to Figure 1-2 and are in locations previously detailed in the environmental assessment documentation. Ancillary facilities associated with the construction of the M12 West, including the key features are contained in Table 1-1. The environmental risks are assessed in Table 6-2 and mitigation measures are detailed in Appendix A.

The Ancillary Facilities are required to support the construction of the M12 Motorway West component as described in section 5.13 of the Construction Environmental Management Plan (CEMP).



Project construction boundary (EAD, Nov 2022)
M12 West
The project ancillary facilities (EAD, Nov 2022)
The project exclusion zones
Existing road
Waterways

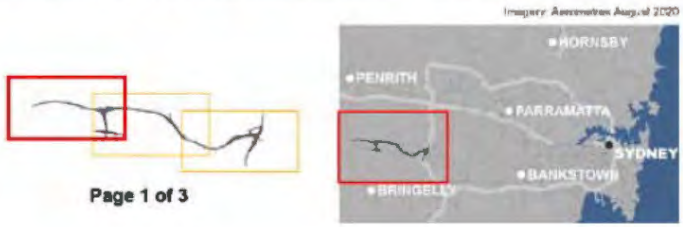
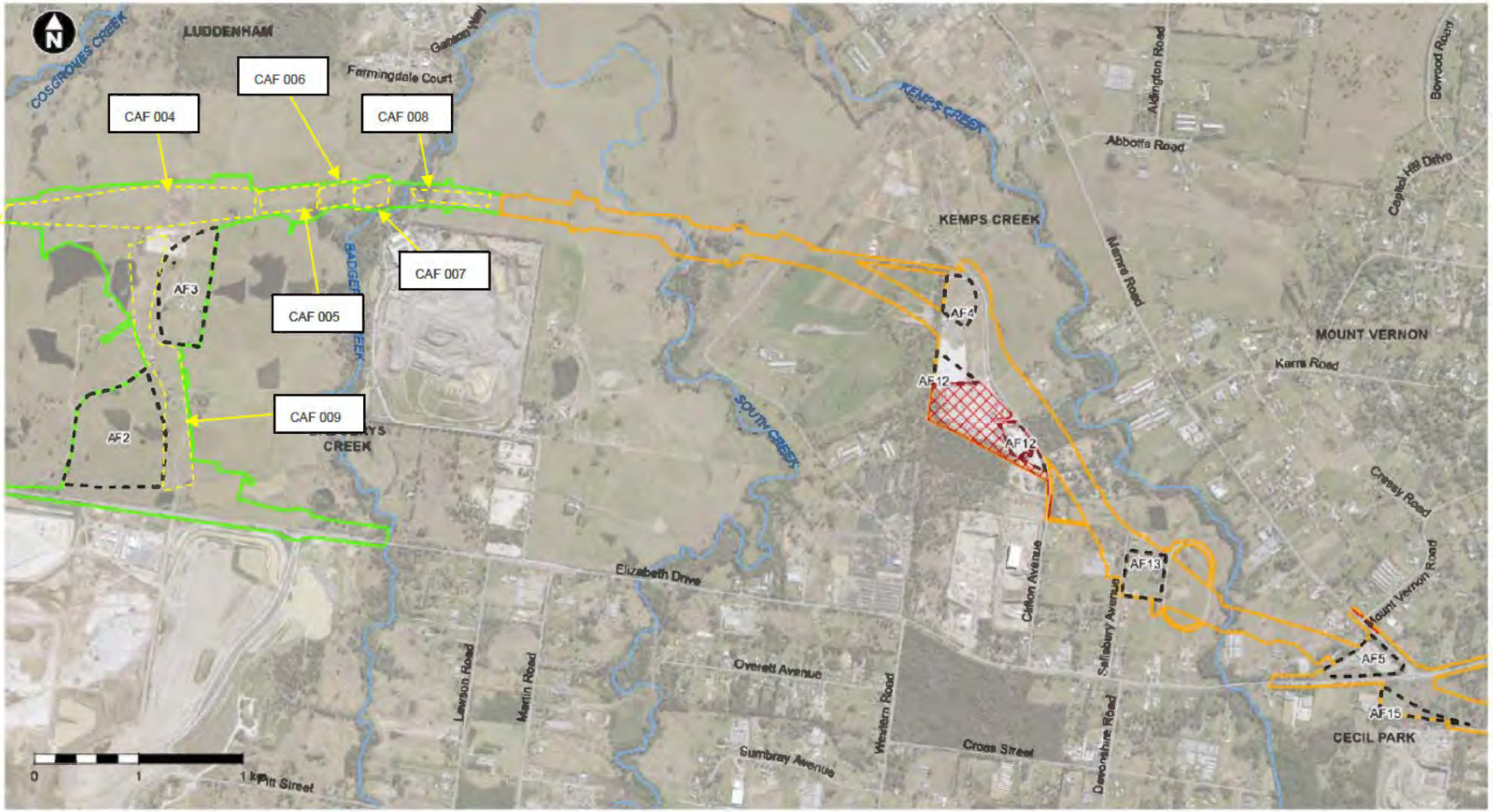


Figure 1-1Ancillary Facility locations M12 West (Source Appendix A4 OCEMP)



Project construction boundary (EAD, Nov 2022)
M12 West
M12 Central
The project ancillary facilities (EAD, Nov 2022)
The project exclusion zones
Existing road
Waterways

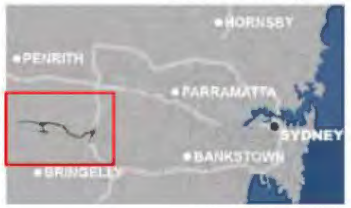


Figure 1-2 Ancillary Facility locations M12 West (Source Appendix A4 OCEMP)

Table 1-1 Approved Ancillary Facilities Locations and Purpose relevant to M12 Motorway West (adopted from OCEMP Appendix A4)

AF	Location	Approximate size (ha)	Purpose	Access Arrangements
AF1	East of The Northern Road	8.66	Plant servicing workshop, stockpile and laydown area (including crushing and screening activities), secondary offices, amenities, vehicular access, car park	Access in and out will be via The Northern Road. Left in and left out.
AF2	North of Elizabeth Drive opposite the Elizabeth Drive/Airport Access Road intersection	21.1	Main project office, main TfNSW office, concrete/asphalt batching plant, plant servicing workshop, precast yard, laydown and storage area, amenities, vehicular access, car park, stockpile and laydown area (including crushing and screening activities)	Access in and out will be via Elizabeth Drive. Left in and left out.
AF3	North of Elizabeth Drive between proposed Airport Access Road and Sydney Metro Greater West	11.8	Stockpile and laydown area	Access in and out will be via the project alignment (AF2) off Elizabeth Drive. Left in and left out.
AF10	East of The Northern Road, South of Gates Road. Existing ancillary facility for construction of Stages 5 and 6 of The Northern Road	12.2	An existing ancillary facility established as main site compound for a previous TfNSW project. To be used as TfNSW office space during initial site establishment until AF2 and AF11 become operational.	Access in and out will be via existing access point off the Northern Road. Left in and left out.
AF11	East of Luddenham Road	4.6	Stockpile and laydown area, secondary offices, amenities, vehicular access, car and plant parking, refuelling and minor workshop, construction water.	Access in and out will be via Luddenham Road. Left in and left out.
AF17	West of Luddenham Road located near chainage 12800.00	>1	Crushing and screening of rock to be re-used on site.	Access in and out will be via Luddenham Road. Left in and left out.
CAF 001	West of Luddenham Road located between estimated chainage 10950.000 and 12150.00	<1	Crushing and screening of rock to be re-used on site.	Access in and out will be via Luddenham Road. Left in and left out.
CAF 002	West of Luddenham Road located between estimated chainage 12150.000 and 12600,000	<1	Crushing and screening of rock to be re-used on site.	Access in and out will be via Luddenham Road. Left in and left out.

AF	Location	Approximate size (ha)	Purpose	Access Arrangements
CAF 003	West and east of Luddenham Road located between estimated chainage 12600.000 and 139500.000	<1	Crushing and screening of rock to be re-used on site.	Access in and out will be via Luddenham Road. Left in and left out.
CAF 004	Interchange between estimated chainage 14000.000 and 154500.000	<1	Crushing and screening of rock to be re-used on site.	Access in and out will be via the project alignment (AF2) off Elizabeth Drive. Left in and left out.
CAF 005	West of Badgerys Creek between estimated chainage 15550.000 and 15850.000	<1	Crushing and screening of rock to be re-used on site.	Access in and out will be via the project alignment (AF2) off Elizabeth Drive. Left in and left out.
CAF 006	West of Badgerys Creek between estimated chainage 15850.000 and 16100.000	<1	Crushing and screening of rock to be re-used on site.	Access in and out will be via the project alignment (AF2) off Elizabeth Drive. Left in and left out.
CAF 007	West of Badgerys Creek between estimated chainage 16150.000 and 16250.000	<1	Crushing and screening of rock to be re-used on site.	Access in and out will be via the project alignment (AF2) off Elizabeth Drive. Left in and left out.
CAF 008	East of Badgerys Creek estimated between chainage 16450.000 and 16600.000	<1	Crushing and screening of rock to be re-used on site.	Access in and out will be via the project alignment (AF2) off Elizabeth Drive. Left in and left out.
CAF 009	Interchange to Bridge 04	<1	Crushing and screening of material to be used on site	Access in and out will be via the project alignment (AF2) off Elizabeth Drive. Left in and left out.

1.4 Environmental Management System overview

The Environmental Management System (EMS) for the M12 Motorway West project is described in Section 1.5 of the CEMP. CPBGG JV will have an EMS consistent with the overarching EMS.

Management measures identified in this SEMP may also be incorporated into site or activity specific Environmental Work Method Statements (EWMS). EWMS incorporate appropriate mitigation measures and controls and identify key procedures to be used concurrently with the CEMP. Further detail on the EWMS is provided in Section 3.2.5 of the CEMP.

1.4.1 SEMP preparation, endorsement and approval

This SEMP has been prepared to satisfy the NSW and Commonwealth CoA's in relation to ancillary facility site establishment works for the Project.

This SEMP will be reviewed by the TfNSW Project Manager and the Environment and Sustainability Manager (ESM) (or delegate) and endorsed by the ER prior to submission to the Secretary of DPE for approval, if required in accordance with A18. The SEMP must be submitted to the Secretary of DPE for approval prior to commencement of site establishment works. This SEMP will be submitted for the approval of the Secretary no later than one month before the establishment of the ancillary facility in accordance with NSW CoA A16.

1.4.2 Interactions with other management plans

This Plan has the following interrelationships with other management plans and documents:

- The CEMP and Sub-Plans, which forms the overarching environmental management framework for the project, and all environmental management measures to be implemented during construction.
- CPBGG JV's Work Health and Safety Management Plan will address the safety requirements associated with the use of herbicides and pesticides. Safety Data Sheets (SDS) and product labels will also be referenced prior to application of herbicides and pesticides. The Weed Management Procedure (in the CFFMP) identifies all record keeping requirements associated with the use of herbicides and pesticides.
- Consultation between TfNSW and CPBGG JV, stakeholders, community and relevant agencies will be undertaken in accordance with the Overarching Communication Strategy (OCS) prepared by TfNSW to address the requirements of NSW CoA B1 and B2. CPBGG JV's Community and Stakeholder Engagement Plan (CSEP) supports the OCS.
- CPBGG JV environmental documentation.

1.5 Consultation

1.5.1 Consultation for preparation of the SEMP

In accordance with NSW CoA A16, this SEMP is to be prepared in consultation with relevant government agencies and local Councils (Liverpool City Council and Penrith City Council). A log of the dates of engagement or attempted engagement with relevant stakeholders is provided in Table 1-2 in accordance with NSW CoA A5(b). No comments were initially received on the SEMP from the relevant government agencies or local Councils. A follow up email was issued on the 16th June 2022 outlining plan for submission of this SEMP to DPE (including timeframes) and a statement that if no comments received, will be registered as a 'no comment'. Liverpool City Council were the only council to provide a response. A copy of the correspondence and follow up correspondence sent out to the government agencies and local councils is provide in Appendix F.

Table 1-2 Provides a log of engagement or attempted engagement with relevant stakeholders (NSW CoA A5(b), A16).

Agency	Date	Person Contacted	Comment	CPBGG JV Response
Traffic Management Centre	30/05/2022	Francois LaRue	No comments provided on draft SEMP	No response required
	16/06/2022	Francois LaRue	No Comment	Follow up email issued.
Penrith City Council	30/05/2022	Ari Fernando	No comments provided on draft SEMP	No response required
	16/06/2022	Ari Fernando	No Comment	Follow up email issued.
Liverpool City Council	30/05/2022	Charles Wiafe	No comments provided on draft SEMP	No response required
	16/06/2022	Charles Wiafe / Rosie Amphone		Follow up email issued.
	17/06/2022	Patrick Bastawrous	Three (3) Comments received from LCC regarding SEMP. Comments related to access in/from the ancillary facilities, OOHW on Saturday afternoon and cumulative traffic impacts.	Response provided to each of the items identified by LCC by way of email dated 22/06/2022.

1.5.2 Ongoing consultation during construction

Consultation between TfNSW, CPBGG JV, stakeholders, the community and relevant agencies regarding the management of site establishment within the Project area will be undertaken during construction as required. The process for the consultation will be documented in the OCS and CSEP.

2 Purpose and objectives

2.1 Purpose

The purpose of this Plan is to describe how impacts associated with the establishment and operation of the Ancillary Facilities (including Minor Ancillary Facilities) will be minimised and managed during construction of the M12 Motorway West Project.

2.2 Objectives

The objective of this SEMP is to ensure that all avoidance, mitigation and management measures relevant to site establishment activities will be implemented, with reference to:

- The Environmental Impact Statement (EIS), Response to Submissions, Amendment Report, and Submissions Report to the Amendment Report prepared for M12 Motorway
- NSW Conditions of Approval (SSI 9364) granted 23 April 2021
- Commonwealth Conditions of Approval (CoA) to the Project on 3 June 2021
- TfNSW QA Specifications G01, G36, G38 and G40.

2.3 Performance outcomes

Performance outcomes have been established based on the specific sensitivities relevant to the construction facilities to allow for full compliance with the relevant legislative requirements, CoA and environmental management measures. These performance outcomes are outlined in Table 2-1.

Table 2-1 Performance outcomes for Ancillary Facilities

Aspect	Performance outcome	Measurement tool
Noise and Vibration	• Minimise noise and vibration complaints by implementing appropriate management measures	• Complaints Register
Water Quality	• Minimise potential impacts to water quality	• Environmental incident reports
Lighting	• Minimise potential impacts from project temporary lighting on surrounding residences	• Complaints Register
Biodiversity	• Vegetation clearing will be undertaken in a manner that avoids and minimises impacts to threatened fauna species	• Pre-clearing survey report
Incident Management	• All environmental incidents will be appropriately managed to minimise their impact on the surrounding environment.	• Environmental incident reports
Compliance	• Activities to establish and operate the site compounds will be compliant with the State and Commonwealth CoA and the Environmental Assessment Documentation	• Compliance records

3 Environmental requirements

3.1 Relevant legislation and guidelines

3.1.1 Legislation

All legislation relevant to this SEMP is included in Appendix A1 of the CEMP. Legislation considered during the development of this Plan includes:

- *Biodiversity Conservation Act 2016 (BC Act)*
- *Contaminated Land Management Act 1997 (CLM Act)*
- *Environmental Planning and Assessment Act 1979 (EP&A Act)*
- *Heritage Act 1977.*
- *Protection of the Environment Operations Act 1997 (POEO Act)*

3.1.2 Additional approvals, licences, permits and requirements

Refer to Appendix A1 of the CEMP. It is noted that an EPL (#21595) is required for the M12 Motorway project. At the time of this plan preparation, EPL #21595 had been approved by the NSW EPA and notice of variation of licence was provided by the EPA on 1 December 2022.

3.1.3 Guidelines and standards

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

- *Interim Noise Construction Guideline (ICNG) (EPA, 2009).*
- Managing Urban Stormwater: *Soils and Construction. Volume 1: 'Blue Book', Landcom (2004)*
- Managing Urban Stormwater: *Soils and Construction. Volume 2D: Main Road Construction*, DECC (2008)
- Transport for NSW *Construction Noise and Vibration Guidelines (TfNSW, 2016)*
- Transport for NSW *Noise Criteria Guideline (TfNSW, 2015).*
- Transport for NSW *Noise Mitigation Guidelines (TfNSW, 2015)*
- Transport for NSW QA Specification G1 – Job Specific Requirements
- Transport for NSW QA Specification G36 – Environmental Protection (Management System)
- Transport for NSW QA Specification G38 – Soil and Water Management
- Transport for NSW QA Specification G40 – Clearing and Grubbing

3.2 NSW Conditions of Approval

The primary NSW CoA relevant to this Plan are listed Table 3-1 below. A cross reference is also included to indicate where the condition is addressed in this Plan or other project management documents. Where relevant, secondary conditions relevant to this Plan have been listed in Appendix B.

Table 3-1 Conditions of Approval relevant to the SEMP

CoA No.	Condition Requirements	Document Reference
A15	Construction ancillary facilities (excluding minor construction ancillary facilities established under Condition A20), that are not identified by description and location in the documents listed in Condition A1 can only be established and used in each case if:	
	(a) they are located within or immediately adjacent to the construction boundary; and	Section 1.3 Section 8.1 Appendix H
	(b) they are not located next to a sensitive receiver(s) (including where an access road is between the facility and the receiver(s)), unless the sensitive receiver(s) (both the landowner(s) and occupier(s)[2]) have given written acceptance to the carrying out of the relevant facility in the proposed location; and [2] *For the purposes of this condition, the term "occupier(s)" refers to residents that occupy a premises or a tenant in a building.*	Section 1.3 Section 8.1 Appendix H
	(c) they have no impacts on heritage items (including areas of archaeological sensitivity), threatened species, populations or ecological communities beyond the impacts approved under the terms of this approval; and	Section 1.3 Section 8.1 Appendix H
	(d) the establishment and use of the facility can be carried out and managed within the outcomes set out in the terms of this approval, including in relation to environmental, social and economic impacts.	Section 1.3 Section 8.1 Appendix H
A16	Before establishment of a construction ancillary facility(ies) (excluding minor construction ancillary facilities established under Condition A20), the Proponent must prepare a Site Establishment Management Plan which outlines the environmental management practises and procedures to be implemented for the establishment of the construction ancillary facility(ies). The Site Establishment Management Plan must be prepared in consultation with the relevant council(s) and relevant State government agencies. The Plan must be endorsed by the ER and then submitted to the Planning Secretary for approval one (1) month before the establishment of the construction ancillary facility(ies). The Site Establishment Management Plan must detail the management of the construction ancillary facility(ies) and include:	This SEMP Section 1.4 Section 1.5 Appendix A
	(a) A description of activities to be undertaken during establishment of the construction ancillary facility(ies) (including scheduling and duration of work to be undertaken at the site);	Section 4
	(b) Figures illustrating the proposed site layout and the location of the closest sensitive receiver(s);	Appendix B
	(c) A program for ongoing analysis of the key environmental risks arising from the site establishment activities described in subsection (a) of this condition, including an initial risk assessment undertaken before the commencement of site establishment work;	Section 6.1 Table 6-2

CoA No.	Condition Requirements	Document Reference
	(d) Details of how the site establishment activities described in subsection (a) of this condition will be carried out to:	
	(i) Meet the performance outcomes stated in the documents listed in Condition A1, and	Section 2.3 Appendix A
	(ii) Manage the risks identified in the risk analysis undertaken in subsection (c) of this condition; and	Table 6-2
	(e) A program for monitoring the performance outcomes, including a program for noise monitoring consistent with the requirements of Condition C14.	Section 7.5
	The Site Establishment Management Plan must be approved before the establishment of a construction ancillary facility(ies) (excluding minor construction ancillary facilities established under Condition A20). Nothing in this condition prevents the Proponent from preparing individual Site Establishment Management Plans for each construction ancillary facility. *Note: Condition A16 does not apply to minor construction ancillary facilities established under Condition A20.*	Section 1.4
A17	Where a construction ancillary facility(ies) has been established for any early works listed in Appendix B and is to be used for construction, a new or revised Site Establishment Management Plan must be prepared where additional activities are required to establish the site for the purposes of construction or there is a change to the site layout. The new or revised Site Establishment Management Plan must be prepared in accordance with Condition A16 and approved by the Planning Secretary before commencement of the additional activities or change to site layout.	This SEMP Section 8
A18	The use of a construction ancillary facility for construction (excluding minor construction ancillary facilities established under Condition A20 and construction ancillary facilities established for the purposes of early works in accordance with Condition A24) must not commence until the CEMP required by Condition C1, relevant CEMP Sub-plans required by Condition C4 and relevant Construction Monitoring Programs required by Condition C11 have been approved by the Planning Secretary. This condition does not apply to the use of construction ancillary facilities where the ER has determined that the use of the facility will have a minimal impact on the environment and community.	Overarching CEMP and Sub Plans prepared by TfNSW and approved by DPIE 21/12/2021.
A20	Lunch sheds, office sheds, portable toilet facilities, and the like, can be established and used where they have been assessed in the documents listed in Condition A1 or satisfy the following criteria:	
	(a) are located within or adjacent to the construction boundary; and	Section 1.3 Section 8.1
	(b) have been assessed by the ER to have - (i) minor amenity impacts to surrounding residences and businesses, after consideration of matters such as compliance with the Interim Construction Noise Guideline (DECC, 2009), traffic and access impacts, dust and odour impacts, and visual (including light spill) impacts, and	Section 1.3 Section 8.1
	(ii) minor environmental impact with respect to waste management, soil, water and flooding, and	Section 1.3 Section 8.1
	(iii) no impacts on heritage items (including areas of archaeological sensitivity), threatened species, populations or ecological communities beyond the impacts approved under the terms of this approval.	Section 1.3 Section 8.1

CoA No.	Condition Requirements	Document Reference
A21	Boundary screening must be erected around all construction ancillary facilities that are adjacent to sensitive receivers for the duration of construction of the CSSI unless otherwise agreed with affected residents, business operators and landowners.	Section 4.3.1 Section 6.2.12
A22	Boundary screening required under Condition A21 of this approval must minimise, as far as practicable, visual impacts on adjacent sensitive receivers.	Section 4.3.1 Section 6.2.12
A23	The CSSI name; application number; telephone number, postal address and email address required under Condition B7 of this approval must be made available on site boundary fencing / hoarding at the entrance of each ancillary facility before the commencement of construction.	Section 4.3.2
E61	The CSSI must be constructed in a manner that minimises visual impacts of construction ancillary facilities, including but not limited to, providing temporary landscaping and vegetative screening of the construction sites, minimising light spill, and incorporating architectural treatment and finishes within key elements of temporary structures that reflect the context within which the construction sites are located.	Figure 1-1 Figure 1-2 Section 5.5 Table 6-2

3.3 Primary Revised Environmental Management Measures (REMMs)

The primary REMMs relevant to this Plan are listed Table 3-2 below. A cross reference is also included to indicate where the condition is addressed in this Plan or other project management documents. Where relevant, secondary conditions relevant to this Plan have been listed in Appendix B.

Table 3-2 Primary REMMs relevant to this Plan

REMM	Condition Requirements	Document Reference
LVIA05	Project elements such as ancillary facility hoardings will be designed and maintained to minimise impacts on landscape character and visual amenity. This will include selecting colours and materials that are visually recessive and blend into the surrounding landscape where practicable, and the prompt removal of graffiti.	Section 5.5 Table 6-2 Section 6.2.12
LVIA07	Temporary and permanent lighting will be designed and implemented with consideration of:	-
	•The need to orientate lighting to minimise light spill and glare impacts on nearby receivers	Section 6.2.11
	• The need to minimise vandalism and maintenance requirements	Section 6.2.11
	•Opportunities to implement sustainability initiatives in design such as energy efficient or solar lighting.	Sustainability Management Plan
NV03	Detailed noise assessments will be carried out for ancillary facilities with the potential to involve high noise generating activities (including batching plant operations). The assessments will consider the proposed site layouts and noise generating activities that will occur at the facilities and assess predicted noise levels against the relevant noise management criteria. The assessments will also consider the requirement for appropriate noise mitigation within ancillary facilities and adjacent to construction works, depending on the predicted noise levels. Any mitigation measures required will be implemented before the start of activities that generate noise and vibration impacts.	CNVMP (Appendix B4 CEMP) Section 5.3

HS02	Measures to mitigate and manage bushfire risk will be developed and included as part of site specific hazard and risk management measures within the WHSMP. Measures will include the maintenance of ancillary facilities in a tidy and orderly manner and the storage and management of dangerous goods and hazardous materials in a safe location.	Section 5.13 Table 6-2

3.4 TfNSW QA Specifications

TfNSW QA Specification requirements relevant to the development of this Plan are listed in Table 3-3. TfNSW QA Specification requirements relevant to the SEMP.

Table 3-3 TfNSW QA Specification requirements relevant to the development of this Plan

QA Specification Reference	Requirement	Reference
G001 10	Pre-construction, if an ancillary facility is required that are not identified in the EIS, the environmental requirements of the conditions of approval will apply.	Section 10
G36 4.15.2	Pre-construction land condition assessment report for each area which you intend to use for the Contractor's site facilities and evidence of necessary statutory and environmental approvals.	Section 4.2.2
G36 4.16	Prior to Completion, restore any areas disturbed by you (such as areas for ancillary facilities, material storage, access and haul roads and the provision of TfNSW's project accommodation) to a condition similar to that existing before disturbance, unless authorised otherwise by TfNSW	Section 4.2.3

4 Site establishment works

4.1 Overview

Ancillary facilities will be established to support site-based personnel during construction. As required by CoA A16 and CoA A24(b), a SEMP for any proposed construction ancillary facilities (excluding minor construction ancillary facilities established under CoA A20) must be prepared to outline the environmental management practices and procedures to be implemented for the establishment of the construction ancillary facility(ies).

All ancillary facilities required for the Project will be established in accordance with this SEMP. Indicative layouts of these ancillary facilities are shown in Appendix B of this Plan and include

- West:
  - AF1
  - AF2 (note concrete batch plant will be adjacent office and shed complex)
  - AF3
  - AF10 only to be used as initial TfNSW offices
  - AF11
  - AF17
  - CAF 001 – CAF 009

4.2 Site Establishment Activities

Site establishment activities refer to the works undertaken to establish an ancillary facility and enable it to be used to support construction of the CSSI. Table 4-1 below details the general site establishment works proposed and an indicative timing to complete each activity, noting that multiple activities may be undertaken simultaneously.

Table 4-1 General Site Establishment Works (high intensive noise activities in bold)

Activity	Description	Indicative Timing

Site preparation works	• Provision of site security such as temporary fencing panels and perimeter hoarding
	• Provision of minimum health and safety requirements including:
	  ○ Toilet facilities
	  ○ Offices
	  ○ Lunch rooms
	• Signage and pedestrian diversions
	• Installation of traffic barriers
		5 days per ancillary facility (ie. one calendar week per ancillary facility)

Site survey and site investigation works	• Ground investigation works • Utility investigation by potholing with a vacuum truck • Pre-construction land condition assessment (PCLCA)	1-2 days per ancillary facility

Initial environmental controls	• Erosion and sediment controls, including:
	  ○ Installation of rip rap
	  ○ Drainage sump
	  ○ Diversion of offsite flows
	  ○ Erosion, sediment and water flow controls
	• Delineation of sensitive areas and temporary fencing/hoardings
		2-5 days per ancillary facility (ie. up to one calendar week per ancillary facility)

Remediation	• Remediation of contaminated materials (if required, pending detailed site investigations)	Variable depending on investigation outcomes
Site levelling	• **Clearing of vegetation and grubbing which will involve the use of chain saws and mulchers** • **Site levelling, grading and compaction**	5 days per ancillary facility (ie. one calendar week

Activity	Description	Indicative Timing
	• **Rock crushing** • Temporary stockpiling of materials for site levelling	per ancillary facility)
Hardstand and site access	• Formalisation of access and egress points • **Sealing of hard stand areas, which will involve the use of vibratory rollers** • Installation of internal haul roads which will involve the use of bitumen milling or profiling equipment	5 days per ancillary facility (ie. one calendar week per ancillary facility)
Demolition of non-heritage structures	• Removal of hazardous materials • Internal strip out • **Structure disassembly and demolition which will involve the use of a jackhammer (or hammer attachment on excavator)**	1-2 days per ancillary facility
Utility works (note, these activities will be managed through the project Utility Management Plan (UMP) and have been provided in this table for completeness)	• Protection of existing services (overhead wiring) • Removal of redundant utilities • **Installation of services to the site e.g. water, sewer, power, communications (this will be managed in accordance with the Utility Management Plan). This work may involve the use of power saws (eg road or demo saw) for cutting road pavement and concrete and jackhammers (or hammer attachment on excavator) to remove concrete / rock in excavations.**	5 days per ancillary facility (ie. one calendar week per ancillary facility) dependent on utility providers timeframes.
Installation of offices	• Layout, e.g. blockwork and foundations, completed for office installation • Installation of office buildings and shipping containers • Installation of staff amenities	10 days per ancillary facility (ie. two calendar weeks per ancillary facility)
Installation of remaining site infrastructure	• Chemical and hazardous material storage • Designated stockpile / laydown areas • Formalisation of on-site car parking (line marking etc) • Installation of site lighting	15 days per ancillary facility (ie. three calendar weeks per ancillary facility)

4.2.1 Site Establishment activities program

An indicative site establishment program for each ancillary facility is provided in Table 4-2. Site establishment works are scheduled to commence in July 2022 and will be undertaken in accordance with this SEMP. The facilities will be in use till the end of the Contract period.

Table 4-2 Ancillary Facility Site Establishment Works – Indicative Duration

Ancillary Facility	Indicative Duration
AF1	8 weeks
AF2	10 weeks plus separate 16 weeks for batch plant establishment Crusher will be placed progressively as required. As such, establishment will take <1 day per location.
AF3	Stockpile site only as per earthworks program for topsoil stripping and unsuitable material.
AF10	Existing ancillary facility, already established.
AF11	8 weeks
AF17	5 days
CAF 001 – CAF 009	Sites will not require establishment as crusher will be placed progressively in areas where cut and fill activities have been completed

4.2.2 Pre-construction land condition assessment

A pre-construction land condition assessment will be undertaken prior to possession of any area of land nominated by TfNSW for the location of site facilities, including areas for construction materials storage and stockpiling in accordance with the requirements of TfNSW QA Specification G36.

The pre-construction land condition assessment:

- Will be undertaken by an independent environmental consultant approved by TfNSW, with experience in site environmental inspections and construction waste management
- Will identify any existing waste or stored materials on the land prior to the area being occupied.
- Will be undertaken for any areas, additional to those nominated, that have been authorised by TfNSW and the necessary statutory and environmental planning approvals for the intended use of the land will be obtained
- The report will include text, photographs and maps to describe any existing waste or stored materials on the site. The report will be prepared in accordance with TfNSW Environmental Procedure "Management of Wastes on Roads and Maritime Services Land"
- A report will be submitted to the TfNSW ESM (or delegate) for approval, prior to establishment of the ancillary facility.

4.2.3 Post-construction restoration and land condition assessment

At the completion of the Project stage, CPBGG JV will decommission the ancillary facilities and any disturbed land rehabilitated and landscaped to a minimum standard of its pre-construction condition in accordance with G36. Any disturbed areas (including areas for site compounds, material storage, access and haul roads and project accommodation) will be restored to a condition similar to that existing before disturbance, unless authorised otherwise by TfNSW.

Any property access that is physically affected by the ancillary facilities is to be reinstated to an equivalent standard or alternative access provided in consultation with the landowner in accordance with NSW CoA E83.

Restoration will include spill clean-up and soil remediation where applicable, removal of all fencing, signage and temporary structures, topsoiling of the area, weed control and seeding, planting, watering and maintenance, removal of temporary erosion control devices and sediment in drainage lines plus removal of unused construction materials.

Areas disturbed as a result of construction will be progressively rehabilitated as soon as practicable.

The work site will be left tidy and free of rubbish upon completion of construction.

Following restoration of the land by the CPBGG JV, a post-construction land condition assessment will be conducted by an independent environmental consultant approved by TfNSW. The report will be prepared in accordance with TfNSW Environmental Procedure "Management of Wastes on Roads and Maritime Services Land".

The post-construction land condition assessment will confirm that no unauthorised Project waste remains on the site. The post-construction land condition assessment report will be submitted to the TfNSW Environment and Sustainability Manager (or delegate).

If required by the post-construction land condition assessment report, CPBGG JV will undertake additional restoration works to ensure all waste is removed and the site returned to pre-construction condition.

The TfNSW Environment and Sustainability Manager (or delegate) may carry out an inspection of the ancillary facility site, before approving that it has been restored.

4.3 Site layout and access

An indicative layout of the ancillary facilities is provided in Appendix B. Proposed access arrangements have been shown or discussed in these layouts and are outlined above in Table 1-1.

4.3.1 Boundary Screening

NSW CoA A21 and A22 require boundary screening to be erected around all construction ancillary facilities that are adjacent to sensitive receivers for the duration of construction unless otherwise agreed

with affected residents, business operators and landowners. This screening must minimise, as far as practicable, the visual impacts on adjacent sensitive receivers.

A 2.4m chain wire security fence with shade cloth is to be erected around all ancillary facilities for the project.

4.3.2 Signage

In accordance with NSW CoA A23 and B7, signs will be displayed at the entrance of the Ancillary Facilities that displays the following information:

- The CSSI name: M12 Motorway
- Application number: SSI- 9364
- A 24- hour telephone number for the registration of complaints and enquiries about the CSSI: 1800 517 155
- A postal address to which written complaints and enquires may be sent:
  - Transport for NSW (M12 Motorway), PO Box 973, Parramatta, NSW, 2124
- An email address to which electronic complaints and enquiries may be transmitted: m12motorway@transport.nsw.gov.au.

4.4 Plant and Equipment

Plant and equipment expected to be used for site establishment of the construction and Minor Ancillary Facilities may include:

- Small cranes and lifting equipment
- Excavators
- Vibratory rollers
- Concrete trucks
- Concrete vibrators
- Road trucks
- Light vehicles
- Chainsaws
- Mulcher
- Fences
- Portable sheds
- Portable ablutions
- Generators
- Jack hammers / rock hammers
- Power / road saws
- Compactors
- Graders
- Watercart
- Waste tanks
- Rock crusher and screen.

4.5 Working hours

In accordance with NSW CoA E34, Ancillary Facility operations will be undertaken during the following working hours:

- 7:00 am to 6:00 pm Monday to Friday
- 8:00 am to 6:00 pm Saturday (subject to prior approval from TfNSW)
- At no time on Sunday or public holidays.

Application to work between 1:00 pm and 6:00 pm on a Saturday (the allowable work hours on Saturdays identified in the Infrastructure Approval) must be submitted to the Principal no later than 12:00 pm on the Thursday immediately prior to the Saturday for which works are proposed, and must include the details of the work activities proposed to be carried out. Approval is at the sole discretion of TfNSW. While not expected to be required, any highly noise intensive works that result in an exceedance of the applicable noise management level at the relevant receiver will be undertaken in accordance with NSW CoA E35, and must only be undertaken:

- Between 8:00 am to 6:00 pm Monday to Friday
- Between 8:00 am to 1:00 pm Saturday
- In continuous blocks not exceeding three hours each with a minimum respite from those activities and works of not less than one hour between each block.

'Continuous' includes any period during which there is less than a one hour respite between ceasing and recommencing the work.

As required by NSW CoA E37, CPBGG JV will identify and liaise with TfNSW to consult with receivers identified as being subject to levels that exceed the highly noise affected criteria (if required) with the objective of determining appropriate hours of respite unless an agreement is reached with those receivers.

4.5.1 Out of Hours Work

CPBGG JV will prepare a procedure for Out of Hours Work (OOHW), prepared in accordance with the *Construction Noise and Vibration Guidelines (Roads and Maritime, 2016)*. The procedure will be prepared to address the requirements of NSW CoA E37 relating to OOHW. Approvals for any changes to the construction hours will be attached to the CNVMP in the OOHW Protocol.

4.5.2 Variation to hours of work

Works associated with the delivery of the Project may be undertaken outside the hours of work identified in Section 4.5 in the following circumstances, in accordance with NSW CoA E36:

- Safety and emergencies, including:
  - For the delivery of materials required by the NSW Police Force or other authority for safety reasons; or
  - Where it is required in an emergency to avoid injury or the loss of life, to avoid damage or loss of property or to prevent material environmental harm.

  On becoming aware of the need for emergency works, CPBGG JV will notify the TfNSW Project Manager, the Planning Secretary, the ER and the EPA of the need for those works. CPBGG JV will use its best endeavours to notify all affected sensitive receivers of the likely impact and duration of those works.
- Work that causes:
  - $L_{Aeq(15\ minute)}$ noise levels:
    - No more than 5 dB(A) above the rating background level at any residence in accordance with *Interim Construction Noise Guideline (DECC, 2009)*, and
    - No more than the "Noise affected" noise management levels specified in Table 3 of *the Interim Construction Noise Guideline (DECC, 2009)* at other sensitive land uses ; and
  - $LAF_{max(15\ minute)}$ noise levels no more than 15 dB(A) above the rating background level at any residence during the night time period; and
  - Continuous or impulsive vibration values, measured at the most affected residence are no more than those for human exposure to vibration, specified in Table 2.2 of *Assessing Vibration: a technical guideline (DEC, 2006): and*
  - Intermittent vibration values measured at the most affected residence are no more than those for human exposure to vibration, specified in Table 2.4 of *Assessing Vibration: a technical guideline (DEC, 2006)*.
- By approval:

- Where different construction hours are permitted or required under an EPL in force in respect of the Project; or
- Work not subject to an EPL that are approved under an Out-of-Hours Work Protocol in accordance with NSW CoA E37; or
- Negotiated agreements with directly affected residents and sensitive land user(s).

Approvals for any changes to the construction hours outlined in Section 4.5 above will be attached to the CEMP.

5 Environmental aspects

This section of the Plan provides an overview of potential environmental aspects that are related to site establishment activities.

5.1 Traffic and transport

5.1.1 Parking

Through the provision on site worker parking, site establishment activities are not expected to reduce the availability of existing parking in the vicinity of each ancillary facility.

5.1.2 Local Road Impacts and Vehicle Movements

The proposed site access for light and heavy vehicles during site establishment works are detailed in Table 1-1. The maximum vehicle movements permitted during site establishment works are provided in Table 5-1.

Roads identified as potential access routes in the Environmental Assessment Documentation included M7 Motorway, Mamre Road, Elizabeth Drive, The Northern Road and Luddenham Road.

The Secretary's approval for the use of local roads by heavy vehicles in accordance with NSW CoA E93 is not required as the use of roads such as The Northern Road and Elizabeth Drive has been identified in the Environmental Assessment Documentation. Therefore, a traffic and pedestrian impact assessment in accordance with NSW CoA E94 is not required.

In accordance with NSW CoA E95, a Road Dilapidation Report will be prepared before any local road not identified by the Environmental Assessment Documentation is used by a heavy vehicle for the purposes of the project, unless otherwise agreed by the relevant road authority.

All access and egress into the ancillary facilities are as per Table 1-1. AF17 and CAF 001 to CAF 008 will only consist of internal vehicle movements and movements of the crusher across Luddenham Road through Gate 3a. Crushing activities are not anticipated to increase off site traffic volumes.

The volume of construction vehicles during the operation of the ancillary facilities and management of cumulative traffic impacts will be addressed in the site specific Construction Traffic and Transport Management Plan (Appendix B1 of CEMP).

Table 5-1 Construction traffic generation

Ancillary Facility	Work Sites[1]	Daily heavy vehicle generation	Morning peak light vehicle generation	Morning peak[2] heavy vehicle generation	Evening peak[3] light vehicle generation	Evening peak heavy vehicle generation
AF1/10	ML-01 The Northern Road to Luddenham Road	80*	100*	20*	100*	20*
AF2/3	ML-03, ML-05, ML-06, ML-08 Cosgroves Creek bridge to Badgerys Creek ML-04 Airport interchange north of the M12 Motorway main line ML-07 Western Sydney International Airport access road LR-02 Elizabeth Drive, west of the Western Sydney International Airport access road LR-03 Elizabeth Drive, east of the Western Sydney International Airport ML-09 Badgerys Creek to South Creek bridge	220*	100*	16*	100*	16*
AF11	ML-02 Luddenham Road to Cosgroves Creek bridge LR-01 Luddenham Road's private access driveway	220*	100*	16*	100*	16*
AF17	No external traffic will be generated from the operation of AF17	-	-	-	-	-
CAF 001 – CAF 009	No external traffic will be generated from the operation of CAF 001 – CAF 00	-	-	-	-	-
Total:		**520**	**300**	**52**	**300**	**52**

[1] As detailed in the AR and depicted in AR Figure 6-4 Amended Haulage Arrangements
[2] Morning peak is 0730 to 0830 hours
[3] Evening peak is 1730 to 1830 hours

5.2 Air quality

The potential impacts related to management of air quality during worksite establishment activities include:

- Dust generation due to:
  - Vegetation clearance, clearing and grubbing
  - Stockpiling of topsoil and mulched vegetation
  - Demolition of buildings and associated infrastructure where applicable
  - Wind erosion of exposed surfaces and stockpiles
  - Wheel-generated dust from vehicular traffic on unsealed roads and works site access points
  - Crushing of rock and concrete.
- Particulate matter (PM2.5/PM10) generation due to:
  - Operation of construction vehicles, plant and equipment
  - Dust generation activities set out above.

It is not anticipated that there will be any odour generated as a result of the establishment or operation of the Ancillary Facilities.

The Environmental Assessment Documentation concluded that impacts on air quality will be minor in nature. Any potential air quality impacts will be managed in accordance with the environmental management measures listed in Table 6-2.

5.3 Noise and vibration

The potential for noise and vibration impacts on sensitive receivers or structures as a result of site establishment activities will depend on a number of factors, including:

- The type of plant and equipment in use
- The number of plant and equipment simultaneously in use
- Proximity to sensitive receivers
- Topography and other physical barriers
- Hours / duration of site establishment works
- Ground condition (bare ground as compared to hardstand)
- The condition of sensitive receivers
- Proximity of heavy traffic areas such as the highway
- Presence of existing background noise (e.g. from heavy traffic areas).

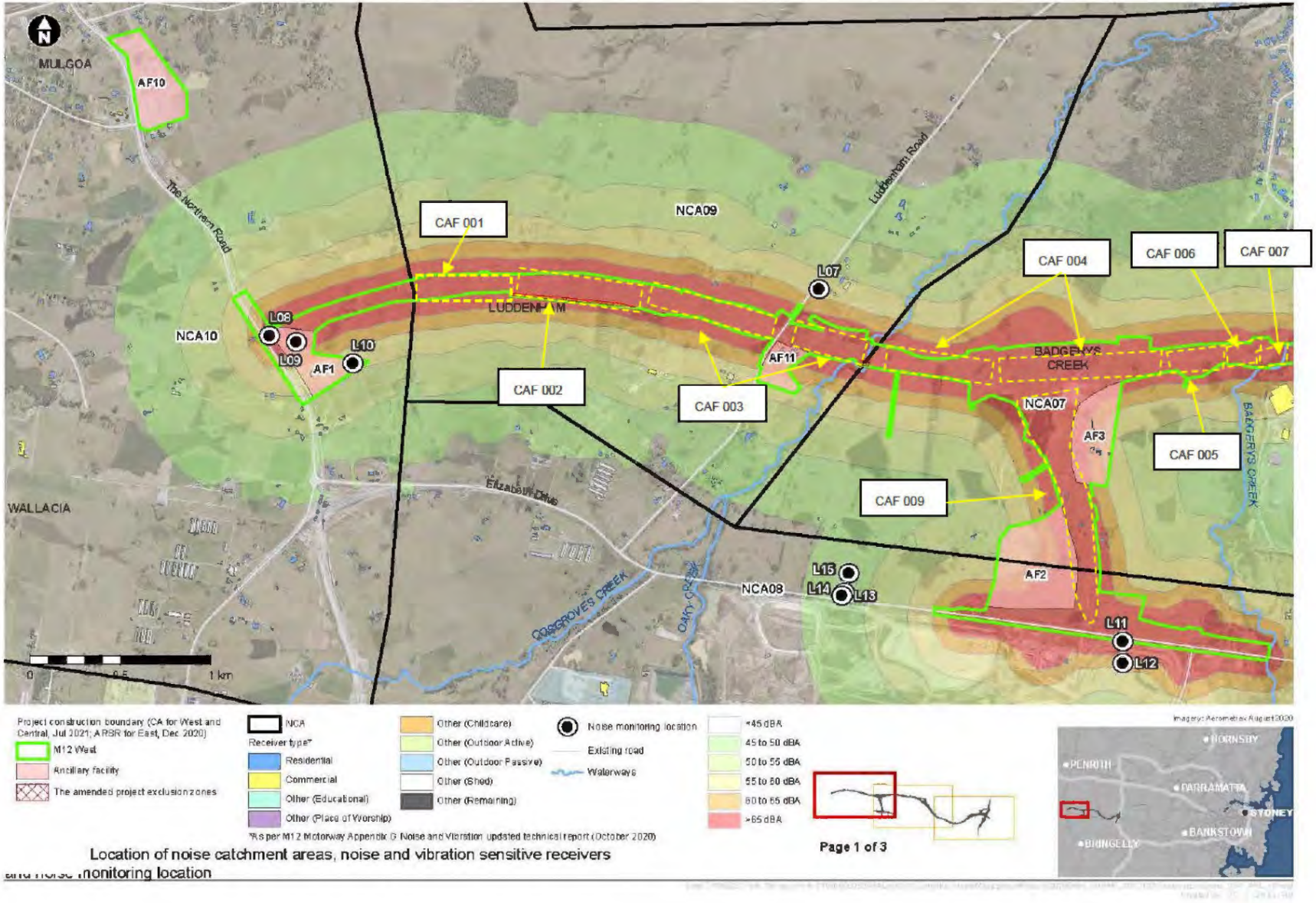
In accordance with NSW CoA A20, lunch sheds, office sheds, portable toilet facilities can also be established when the ER has assessed that only minor amenity impacts to surrounding residences and businesses are present. This includes consideration of matters such as compliance with the *Interim Construction Noise Guideline* (DECC, 2009).

The noise and vibration assessment in the Environmental Assessment Documentation identified and considered potential noise and vibration impacts for sensitive receivers along the Project alignment. Receivers potentially sensitive to noise and vibration were categorised as residential dwellings, commercial/industrial buildings (including small businesses), or 'other' sensitive land uses which includes educational institutions, childcare centres, medical facilities, and places of worship. Sensitive receivers potentially affected by the Project are mainly properties in semi-rural surrounds of Luddenham and Badgerys Creek with few residences.

Existing background noise to these receivers results from existing construction activities being undertaken at WSA and traffic on The Northern Road and Elizabeth Drive and can be generally influenced by environmental noises such as wind and insects.

Noise sensitive receivers and the Noise Catchment Areas (NCAs) within the Project are shown in Figure 5-2. The predicted noise contours for the bulk earthworks – peak impact scenario has been included as a reference for predicted construction noise impacts. Predicted construction noise contours for the

various scenarios can be found on the M12 Motorway web portal (http://caportal.com.au/rms/m12) and within the M12 Motorway Amendment Report Appendix G Noise and Vibration updated technical report. Notification to residents will be in accordance with the requirements of the OCS.



Location of noise catchment areas, noise and vibration sensitive receivers and noise monitoring location

Figure 5-1 Noise catchments relevant to the Ancillary Facilities

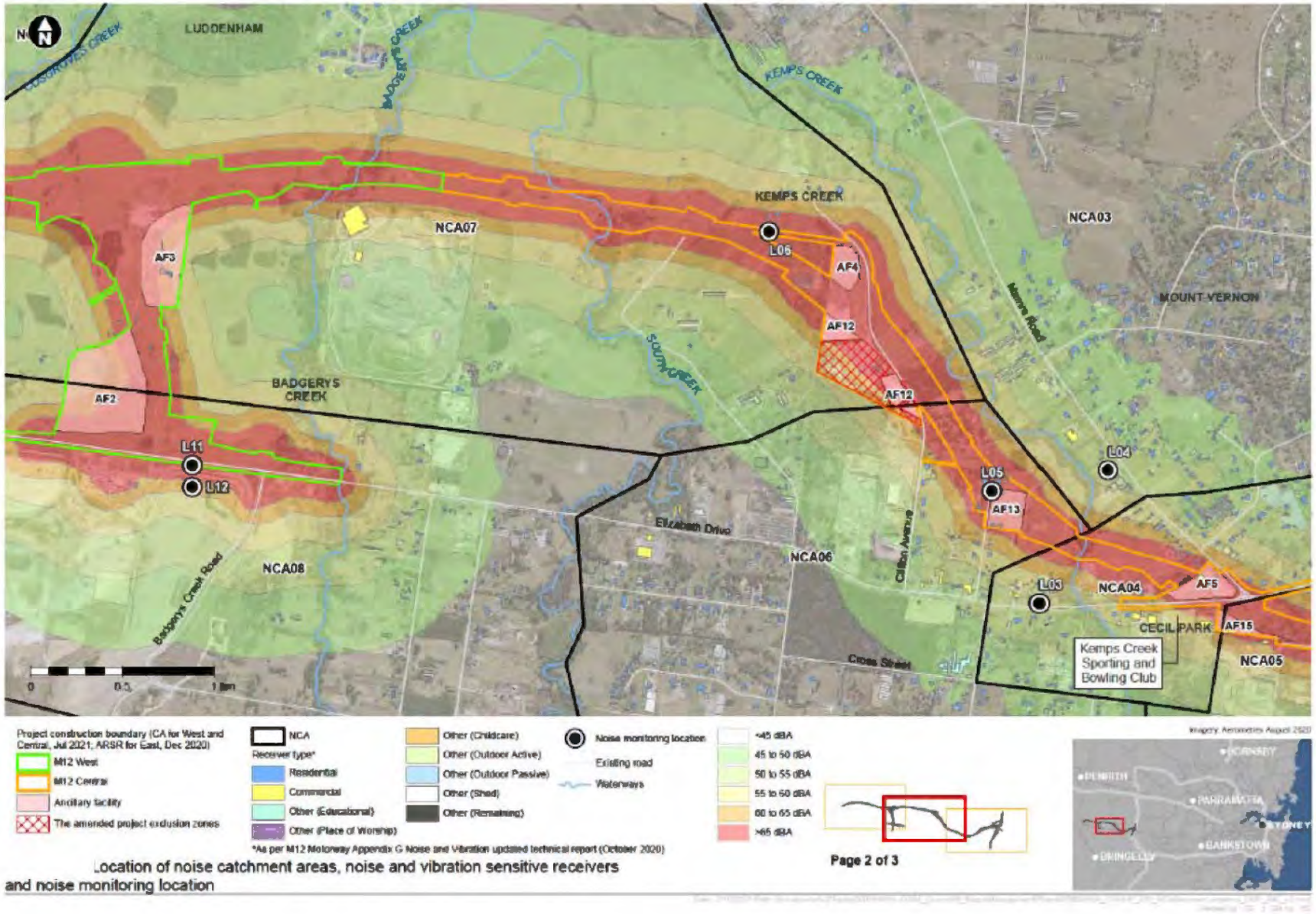


Figure 5-2 Noise catchments relevant to the Ancillary Facilities

Table 5-2 Construction NMLs and sleep disturbance screening criteria at residences (extract from Table 5-3 CNVMP)

NCA	Monitoring location	NML LAeq(15min) (dBA)						
		Standard construction (RBL + 10dB)	Out-of-hours (RBL + 5dB)					Sleep disturbance screening criteria (RBL + 15 dB)
		Day[4]	Morning shoulder[5]	Day[6]	Evening[7]	Evening shoulder[8]	Night[9]	
NCA07	L06	44	39	39	39	39	36	46
NCA08	L14	52	47	47	44	44	38	48
NCA09	L07	50	45	45	41	41	36	46
NCA10	L09	54	49	49	49	49	41	51

5.4 Land use

Existing land use in the area surrounding the M12 Motorway West are rural residential properties in the semi rural surrounds of Luddenham and Badgerys Creek.

The establishment of ancillary facilities will result in a temporary change in land use. The individual sites would not generally impact on the existing land use as most are currently zoned for (or being used for) infrastructure related purposes.

Any ongoing potential land use and property impacts during site establishment activities will be managed in accordance with the environmental management measures listed in Table 6-2.

5.5 Urban design and visual amenity

The Ancillary Facilities will result in a temporary increase in the visual extent of construction site and activities. The proposed locations of the ancillary facilities are located in rural lands and farmland surrounded by rural residential properties, located at distances exceeding 150m from the ancillary facilities. Scattered trees and shrubs are also present within the ancillary facility locations and will be retained as far as practicable. The ancillary facilities will not have tall structures, with the exception of the batch plant. Some of the existing topography (particularly at AF2), once the earthworks are completed will also provide some partial obstruction of direct views over the ancillary facility. Any obstruction of views from existing residential receivers to the ancillary facilities will be minimal.

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[4] Daytime period is the standard construction hours of 7:00 am to 6:00 pm Monday to Friday and 8:00 am to 1:00 pm Saturday

[5] Morning shoulder period is 6:00 am to 7:00 am Monday to Friday. Where the morning shoulder RBL is higher than the daytime RBL, the daytime RBL was adopted

[6] Daytime OOH period is 7:00 am to 8:00 am and 1:00 pm to 6:00 pm Saturday, and 8:00 am to 6:00 pm Sunday and Public Holidays

[7] Evening period is 7:00 pm to 10:00 pm Monday to Friday and 6:00 pm to 10:00 pm Saturday, Sunday and Public Holidays

[8] Evening shoulder period is 6:00 pm to 7:00 pm Monday to Friday. Where the evening shoulder RBL is higher than the evening RBL, the evening RBL was adopted

[9] Night-time period is 10:00 pm to 6:00 am Monday to Friday, 10:00 pm to 7:00 am Saturday and 10:00 pm to 8:00 am Sunday and Public Holidays

Potential impacts to sensitive land users during site establishment works include dust emissions, visual impacts, and noise and vibration. In addition, lighting may be required at night for the purposes of illuminating required office buildings, vehicle parking area, providing security around compounds, or where works are required to be conducted under an ROL, including the delivery of oversized materials/plant, or potholing investigations.

Ancillary facilities will be constructed in a manner that minimises visual impacts of the site. This will include boundary screening, temporary landscaping (eg. use of topsoil stockpiles at AF2) and minimising light spill (in accordance with NSW CoA A21, A22, A23, E61 and E62). Access to site will be strictly controlled via lockable gates and a gatekeeper. Access to the buildings would also be controlled by way of lock/key, swipe tag system or similar. Clear site lines incorporated as part of the layout for the ancillary facilities would also prevent 'hidden zones' being created. Urban design and visual amenity environmental management measures are listed in Table 6-2.

AF10 is an existing compound and no modifications are required to the site. The site is approved for use under the CoA's and is surrounded by the cut batter of The Northern Road to the west. The site is open to the north, east and south. The only sensitive receiver is located to the south of the site and is not visible from the compound.

The visual and light spill impacts associated with the ancillary facility would be temporary in nature. The ancillary facilities have been designed to occupy the minimal area practicable and are consistent with the potential impacts presented in the Project EIS. Ancillary Facilities would be restored to their pre-construction condition at the end of the project.

5.6 Social and economic

Site establishment works have the potential to cause localised social and economic impacts as a result of changed traffic and access conditions to facilitate site access and egress requirements. In addition, short term utility disruptions may be necessary to connect utilities to the ancillary facilities.

These potential impacts will be managed in accordance with the management and mitigation measures for their respective aspects, listed in Table 6-2.

The Project is expected to contribute to an increase in construction and project-related jobs. It will also provide a stimulus for the local economy (local cafes, restaurants and shops) due to the influx of the construction workforce.

5.7 Soil and water quality

The proposed site establishment works will involve surface excavation and earthmoving. Temporary exposure of soil to water runoff and wind could increase the potential for soil erosion. There is also potential for exposed soils – and other unconsolidated materials, such as spoil, sand and other aggregates – to be transported from the ancillary facility into surrounding waterways via stormwater runoff. Sedimentation in natural waterways can result in reduced water quality as well as smothering of vegetation and clogging of channels, impacting the natural flow paths of the waterway.

The greatest potential for soil erosion would be associated with the disturbance of soils on existing slopes during site establishment/construction, particularly at the major or larger ancillary facilities requiring significant earthworks to establish or large areas needed to be exposed.

Site-specific Erosion and Sediment Control Plans are to be prepared for each site and are contained within the Construction Soil and Water Management Sub-Plan (CSWMP), Appendix B8 of the CEMP.

The majority of ancillary facilities are not characterised by significant undulating topography and the soil erosion hazard is unlikely to be significant.

There is low potential for acid sulfate soils to be encountered.

No earthworks are required at the AF10 facility as it is an existing facility.

5.8 Flooding

Figure 5-3 below illustrates the flooding extents under normal conditions during a 20-year ARI flood event. Based on the existing flood mapping, none of the Ancillary Facilities are located within the 20 year ARI flood zone. There is potential for some localised flooding within the property that the ancillary facilities is located within (ie. at the locations of existing farm dams). The Ancillary Facilities will be

positioned out of the existing drainage alignments to ensure that water flow is not impeded. Access installed to the facilitate access will not impede water flow within the existing drainage lines.

5.9 Contamination

None of the ancillary facilities identified within this SEMP are located within Areas of Environmental Interest (AEI) with regards to contaminated land. AF3 is located adjacent to a potential area of existing fill as shown in Figure 5-4.

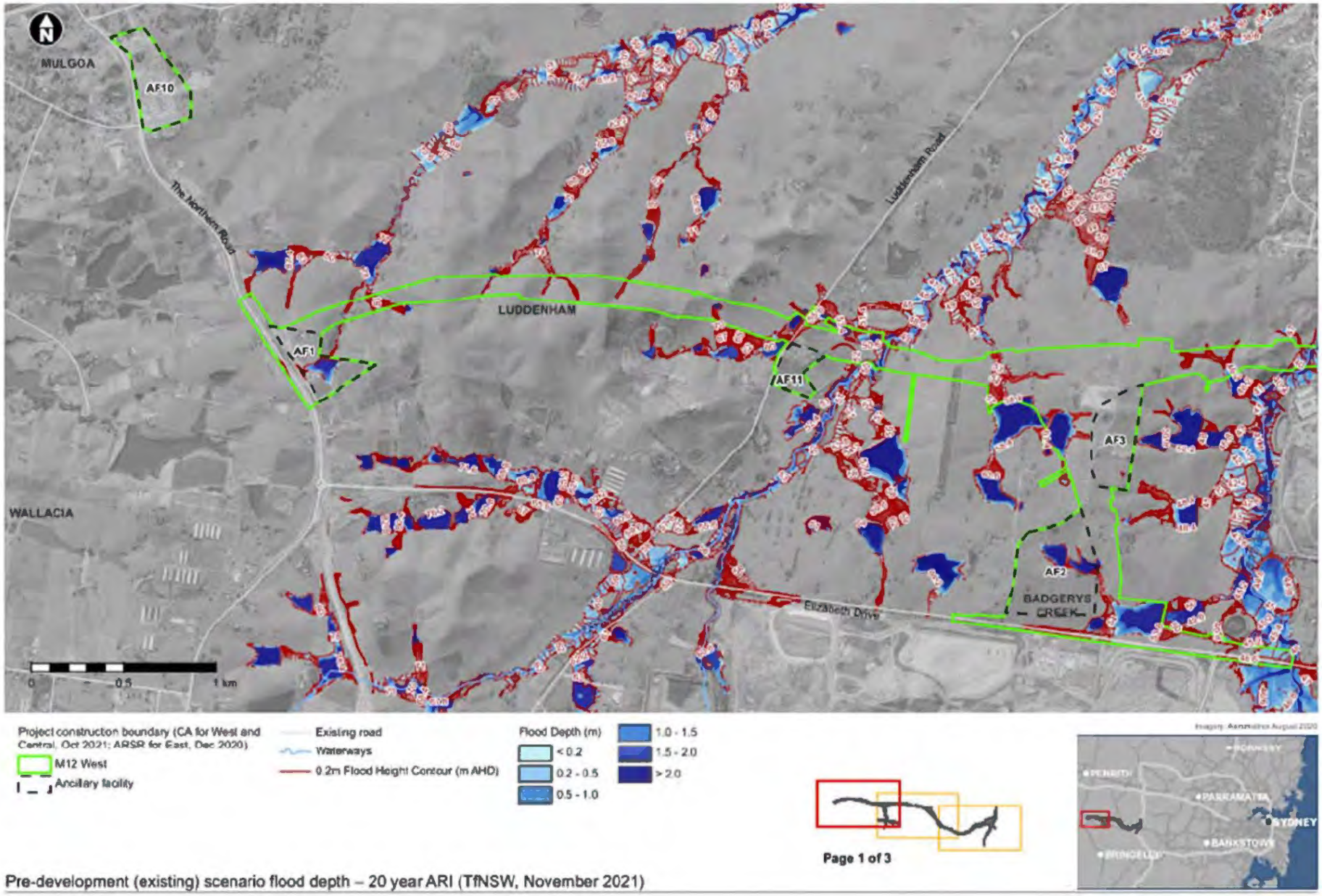
Key contamination risks within the ancillary facility include handling of hazardous material within the ancillary facility boundary and refuelling activities. No existing contamination risks have been identified within the existing property.

If any unexpected contamination (including asbestos) are encountered, works potentially affecting the find will cease immediately and the Unexpected Contaminated Land and Asbestos Finds Procedure (Appendix B3 of the CEMP) will be followed. A suitable area will be identified by CPBGG JV for the temporary stockpiling of unexpected waste materials.

No earthworks are required at the AF10 facility as it is an existing facility. Areas where AF17, CAF 001 – CAF 008 crushing facilities will be placed and progress into natural soils and no unexpected, contaminated land finds are anticipated.

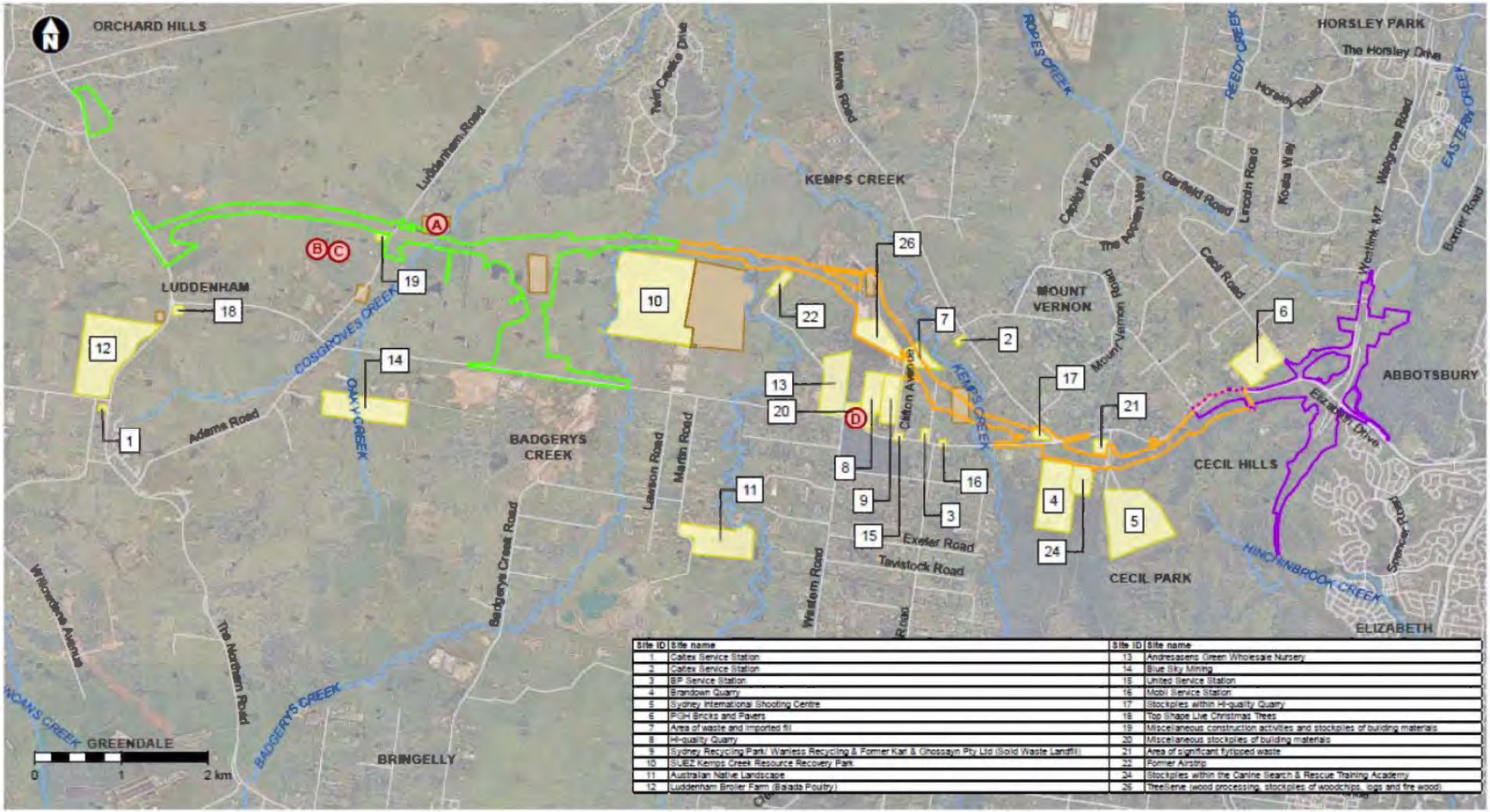
If contamination is present and not appropriately controlled, there is the potential for:

- Inhalation and/or ingestion risk to site workers and nearby residents of hazardous building materials via dust
- Cross contamination associated with incorrect handling or disposal of spoil/unexpected finds
- Excavation activities mobilising and spreading buried contaminants
- Accidental leaks and spills while using land for ancillary facilities
- Erosion and off-site transport of sediment and contamination via overland flow and stormwater runoff, affecting the water quality of local waterways.



Pre-development (existing) scenario flood depth – 20 year ARI (TfNSW, November 2021)

Figure 5-3 Existing conditions during a 20 year ARI flood event



Site ID	Site name	Site ID	Site name
1	Caltex Service Station	13	Andreasens Green Wholesale Nursery
2	Caltex Service Station	14	Blue Sky Mining
3	BP Service Station	15	United Service Station
4	Brandown Quarry	16	Mobil Service Station
5	Sydney International Shooting Centre	17	Stockpiles within Hi-quality Quarry
6	PGH Bricks and Pavers	18	Top Shape Live Christmas Trees
7	Area of waste and imported fill	19	Miscellaneous construction activities and stockpiles of building materials
8	Hi-quality Quarry	20	Miscellaneous stockpiles of building materials
9	Sydney Recycling Park/ Wanless Recycling & Former Karl & Ghossayn Pty Ltd (Solid Waste Landfill)	21	Area of significant fytipoid waste
10	SUEZ Kemps Creek Resource Recovery Park	22	Former Airstrip
11	Australian Native Landscape	24	Stockpiles within the Canine Search & Rescue Training Academy
12	Luddenham Broiler Farm (Baiada Poultry)	26	TreeServe (wood processing, stockpiles of woodchips, logs and fire wood)

Figure 5-4 Areas of Environmental Interest (West package – Green section)

5.10 Biodiversity

5.10.1 Flora and Fauna

No native vegetation clearing is required as part of the establishment of ancillary facilities. The only vegetation that currently exists in these ancillary facility locations comprises largely grass, with a very limited number of trees and some planted garden hedges/shrubs present. As far as practical, ancillary facilities will be configured so as to not directly impact on trees that would not already be directly impacted by the Project. Storage areas and associated works will be located in cleared and otherwise disturbed areas away from residential areas where feasible and reasonable. Where trees can be retained, exclusion fencing will be erected to protect these trees from construction activities. The proposed temporary ancillary facilities would not result in any increase in the loss of vegetation or habitat, or increase the impact on flora and fauna, as no additional native vegetation removal would be required.

The safeguards outlined in the Project EIS and assessment documentation, and in Appendix A including; pre clearing surveys, ongoing monitoring, erosion and sediment control, and rehabilitation would appropriately manage the risks to flora and fauna associated with the ancillary facilities.

5.11 Heritage

There are heritage items or potential heritage items that have been identified within the vicinity of some of the proposed Ancillary Facilities (eg. AF3).

No sites or potential sites of Aboriginal heritage have been identified within the Ancillary Facility areas within the construction footprint.

No earthworks are required at the AF10 facility as it is an existing facility and no heritage items are located in the AF10 facility area.

The location of AF17, CAF 001 to CAF 008 are within previously the previous rural / residential land use and current construction activities. The locations will have no further impact to Aboriginal and non Aboriginal heritage.

Any potential heritage impacts will be managed in accordance with the environmental management measures listed in Table 6-2.

If any unexpected heritage items (including human remains) are encountered, works potentially affecting the find will cease immediately and the Unexpected Heritage Finds Procedure (Appendix B7 of the CEMP) will be followed.

5.12 Greenhouse gas, resource and waste minimisation

Greenhouse gas emissions relating to site establishment activities at the site are expected to be relatively minor, and typically associated with the use of plant, vehicles and electricity.

Resources used for site establishment works will primarily include construction materials (concrete, asphalt, steel, fuel etc), water and power. The waste generated is expected to be mainly unsuitable fill material and demolition waste.

No additional resources will be required for establishment of AF10, mains power connection is available at the AF10 compound.

Any potential greenhouse gas, resource and waste impacts will be managed in accordance with the environmental management measures listed in Table 6-2. In accordance with NSW CoA E104, a waste tracking register is included in Appendix B5 of the CEMP to track waste movements associated with construction activities.

5.13 Hazard and risk

Potential hazard and risk impacts at ancillary facilities will include accidental spills of fuels and/or chemicals which could result in contamination of soils and/or waterways, mismanagement of contaminated material and emission of gasses from contaminated material.

Additionally, bushfire is an established natural hazard within this landscape and can occur in South-Western Sydney frequently during the summer months. Prolonged dry conditions, hot temperatures, and

low humidity during spring, summer and early autumn are experienced regularly at the ancillary facility sites. Along with wind, these climate features contribute significantly to the behaviour of a fire.

A bushfire hazard exists where there is fuel in the form of vegetation, including grass, scrub, bushes and trees. Construction activities have the potential to generate bushfire risk as a result of activities likely to generate sparks occurring on site. Activities identified as likely to generate sparks include:

- Smoking
- Plant Maintenance
- Driving on site
- Hot works.

Any potential hazard and risks will be managed in accordance with the environmental management and mitigation measures listed in Table 6-2.

6 Site establishment risk assessment and management approach

6.1 Site establishment risk assessment

Risks are assessed in accordance with section 3.2.1 of the CPBGG JV CEMP. The risk assessment has been prepared to assess the key environmental risks associated with the site establishment works for the Ancillary Facilities described in Section 4.

The risk assessment process uses the following three steps to identify the risk level and determine the appropriate management measures required. These steps are shown in Figure 6-1 to Figure 6-3 below

- Step 1. Consequence criteria is used to determine the most credible consequence rating of the risk identified
- Step 2. Likelihood criteria is used to determine the likelihood of that consequence occurring in the circumstances
- Step 3. From these above two steps, determine the risk level using the matrix.

Step 1 - What is the Most Credible Consequence?

Consequence Rating	1 Negligible	2 Minor	3 Moderate	4 Major	5 Substantial
Safety and Health	First Aid Treatment (or No treatment)	Medical Treatment Injury	Lost Time Injury	Permanent Injury (Paraplegia, Amputation)	Fatality (Single or multiple)
Environment and Heritage	Small, contained localised impact / Low level repairable damage	Short lived, well contained environmental impact / Minor remedial action required	Medium term, contained impact / Significant remedial action required	Impacts extend off-site / external ecosystem. Considerable remediation required	Long Term irreversible damage / Long Term Remediation required
Plant Damage	Little or No Damage	Damage less than $15,000	Damage between $15,000 and $50,000	Damage between $50,000 and $100, 000	Damage greater than $100, 000
Reputation	Brief local negative media coverage.	Local negative media coverage. Site or project problem.	Regional/short negative media coverage. Loss of Client / project.	Sustained national negative media coverage. Loss of long term key client.	International negative media coverage. Loss of business from key sector.
Time	Delay / Business interruption <1% of program days	Delay / Business interruption between 1%-3% of program days	Delay / Business interruption between 4%-6% of program days	Delay / Business interruption between 7%-10% of program days	Delay / Business interruption >10% of program days
Cost	Additional cost to the business / project <1% revenue	Additional cost to the business / project between 1%-3% revenue	Additional cost to the business / project between 4%-6% of revenue	Additional cost to the business / project between 7%-10% of revenue	Additional cost to the business / project >10% of revenue

Figure 6-1 Consequence criteria

Step 2 - What is the likelihood of that Consequence occurring in the circumstances?

Likelihood Ranking				
Score	Description		Percentage	Expected Frequency
5	Almost Certain	Common / Frequent Occurrence	Can be expected to occur 75% - 99%	More than 1 event per month
4	Likely	Is known to occur or "It has happened regularly"	Can quite commonly occur 50% - 75%	More than 1 event per year
3	Possible	Could occur or "I've heard of it happening"	May occasionally occur 25% - 50%	1 event per 1 to 10 years
2	Unlikely	Not likely to occur very often	May infrequently occur 10% - 25%	1 event per 10 to 100 years
1	Rare	Conceivable but only in exceptional circumstances	May occur in exceptional circumstances 0% – 10%	Less than 1 event per 100 years

Figure 6-2 Likelihood Criteria

A Risk Rating Table (Figure 6-3) is used to evaluate the severity of the risk for each environmental aspect. As shown, the matrix axes are those of likelihood and consequence using the measures given above. A scale of consequences from 1 to 5 is used to indicate increasing severity. The consequences are potential outcomes as a result of a hazard occurring. The severity of the risk determines the level of management action required as detailed in Table 6-1.

Step 3 – Determine the Risk Level

Determine the risk score by combining most credible consequence with likelihood

Likelihood	Consequence	Negligible	Minor	Moderate	Major	Substantial
	Rating	1	2	3	4	5
Almost Certain	5	5 (Low)	10 (Moderate)	18 (Very High)	23 (Extreme)	25 (Extreme)
Likely	4	4 (Low)	9 (Moderate)	17 (Very High)	20 (Very High)	24 (Extreme)
Possible	3	3 (Low)	8 (Moderate)	13 (High)	19 (Very High)	22 (Very High)
Unlikely	2	2 (Low)	7 (Low)	12 (High)	15 (High)	21 (Very High)
Rare	1	1 (Low)	6 (Low)	11 (Moderate)	14 (High)	16 (High)

Figure 6-3 Risk Level Matrix

Table 6-1 Risk severity

Risk Severity	Management Required
Extreme	Approval to work cannot be given. A work method that has a lesser residual risk must be used.
Very High	Immediate management action required. EWMS approved by the BU Environmental Manager. Supervision must be present whilst the activity is being undertaken.
High	Priority management action warranted. An EWMS or SEP must be approved by ESR. Daily inspection by Supervisor completed.
Moderate	Management action warranted.
Low	Management action should be considered, particularly for low-level impacts that nevertheless occur on a continual basis.

The hazards and risk assessment uses Table 6-1 to consider the potential consequences, probability and risk of several hazards and allows management of specific risks to be prioritised. The risk rankings were developed further by taking control and mitigation measures into consideration and providing a subsequent risk ranking based on the implementation of these measures.

Specific measures and requirements to meet the objectives of this SEMP and to address impacts resulting from the ancillary facilities are outlined in Table 6 2.

Table 6-2 Site establishment initial risk assessment

Activity	Potential Impact	Likelihood	Consequence	Risk level prior to mitigation	Mitigation Measure	Responsibility	Likelihood	Consequence	Risk level following mitigation
Site preparation works: • Provision of site security such as perimeter hoarding, signage • Provision of WHS requirements including: o Toilet facilities o Offices o Lunch rooms • Survey and site investigation work • Phase 2 contamination investigation • Site establishment works • Site access and environmental controls including: o Erosion and sediment controls o Further site investigations (utility and geotechnical) o Treatment of contaminated materials (if required) o Delineation of sensitive areas and temporary fencing	Failure to obtain external approvals to commence site establishment	Unlikely	Major	15 (High)	• SEMP Approval by DPE prior to use of ancillary facilities • Hold Point (G1)	TfNSW	Unlikely	Minor	7 (Low)
	Accidental clearing outside of boundary of the ancillary facility	Possible	Moderate	13 (High)	• Daily pre-start outlining the vegetation areas to be cleared • Clearing will be undertaken in accordance with the staged Vegetation Clearing Procedure (Appendix A of the CFFMP). • All site personnel to undertake site inductions outlining no vegetation or tree removal will be undertaken without prior approval • Exclusion zones will be established in accordance with flora and fauna management measures in Appendix A. • Exclusion zones will be delineated with flagging (or similar) in accordance the Flagging Protocol (Vegetation Clearing Procedure (Appendix A of the CFFMP)	CPBGG JV (e.g. Project Manager, Construction Manager, Superintendent, ESR)	Unlikely	Minor	7 (Low)
	Impacts on unexpected	Unlikely	Moderate	12 (High)	• Toolbox talks/inductions regarding the potential for	CPBGG JV (e.g. Project Manager,	Rare	Moderate	11 (Moderate)

Activity	Potential Impact	Likelihood	Consequence	Risk level prior to mitigation	Mitigation Measure	Responsibility	Likelihood	Consequence	Risk level following mitigation
○ Signage and pedestrian diversions ○ Installation of traffic barriers ○ Installation of site perimeter fencing and gates (formalisation of access and egress points) • Utilities and ground works ○ Demolition of non-heritage structures ○ Clearing and grubbing ○ Site levelling, grading and compaction (including fill importation) ○ Protection of existing services ○ Removal of redundant utilities ○ Installation of services to the site (e.g. water, sewer, power, communications)	threatened species				unexpected threatened species • Threatened species surveys prior to site establishment activities performed by a suitably qualified ecologist (if required). • Implementation of the Unexpected Threatened Species or EEC Finds Procedures in accordance with Guide 1 of the *Biodiversity Guidelines* (RTA, 2011), TfNSW specifications, Appendix B of the CFFMP (Appendix B2 of the CEMP).	Construction Manager, Superintendent, ESR)			
	Spreading of noxious weeds via personnel, plant / equipment, topsoil / mulch	Possible	Moderate	13 (High)	• Toolbox talks/inductions regarding the location and treatment of weeds • Works will be carried out such that no noxious weeds are imported to the site or around the site including the washing of wheels of all plant prior to transportation to site • Hygiene protocols outlined in the Weed and Pathogen Management Plan (Appendix C of the CFFMP) will be implemented throughout site clearing activities.	CPBGG JV (e.g. Project Manager, Construction Manager, Superintendent, ESR)	Unlikely	Minor	7 (Low)

Activity	Potential Impact	Likelihood	Consequence	Risk level prior to mitigation	Mitigation Measure	Responsibility	Likelihood	Consequence	Risk level following mitigation
○ Site layout (e.g. blockwork and foundations completed for office installation) ○ Sealing of hard stand areas (excluding acoustic sheds) ○ Internal haul roads installed ○ Minor stockpiling of materials • Installation of offices ○ Installation of office blocks and shipping Containers ○ Staff amenities ○ Crane movements for heavy objects including site offices	Generation of dust	Likely	Moderate	17 (Very High)	• Site establishment activities with the potential to generate dust will be modified or ceased during high winds to reduce the potential for dust generation • Access roads will be maintained and managed to reduce dust generation • Temporary stockpiles that have the potential to result in dust generation will be minimised at all times and comply with RMS – Stockpile Site Management Guideline (May 2015) in accordance with CSWMP (Appendix B8 of the CEMP) • During high wind and/or dry conditions, programming of dust generating activities is to be considered in order to reduce nuisance to neighbouring properties • Compact, seal or cover ancillary facility surfaces • Adequate dust suppression will be available and applied where required e.g., watercart, misters	CPBGG JV (e.g. Project Manager, Construction Manager, Superintendent, ESR)	Likely	Minor	9 (Moderate)
	Bushfire	Possible	Substantial	22 (Very High)	• Prepare and implement a WHSMP that incorporate	CPBGG JV (e.g. Project Manager,	Rare	Substantial	16 (High)

Activity	Potential Impact	Likelihood	Consequence	Risk level prior to mitigation	Mitigation Measure	Responsibility	Likelihood	Consequence	Risk level following mitigation
					measure to manage and mitigate bushfire risk • All site personnel are inducted on bushfire hazards and how they are to be managed • Flammable materials will be appropriately stored in accordance with AS1940 and the SDS. • Hazardous materials will be appropriately bunded with a volume of 110 per cent of the largest receptacle • All works involving a fire source will have a hot works permit in place with specific controls to prevent fire risk • No smoking (including e-cigarettes) will be allowed on site except at designated areas. Dedicated butt disposals will be located in all designated smoking areas • Cutting, welding or grinding will not be undertaken on total fire ban days, unless the works takes place in an area at least 50 metres away from an ignition source and appropriate fire controls are in place.	Construction Manager, Superintendent, ESR)			

Activity	Potential Impact	Likelihood	Consequence	Risk level prior to mitigation	Mitigation Measure	Responsibility	Likelihood	Consequence	Risk level following mitigation
					• Vehicles will not be driven or idled in areas of long grass on fire ban days or after prolonged periods of dry weather. • Mulch stockpiles will be monitored and turned over as required to avoid spontaneous combustion. • Ancillary Facilities are to be maintained in a tidy and orderly manner.				
	Erosion and sedimentation impacting nearby dams or downstream watercourses due to exposed land, inadequate controls or control failure	Likely	Moderate	17 (Very High)	• Erosion and Sediment Control Plans (ESCPs) will be prepared by CPBGG JV for all work and implemented in advance of site disturbance • All site personnel will undergo a site induction and ongoing toolbox talks outlining erosion and sediment control management measures • EWMS will be prepared for high risk activities • Hardstand areas and surrounding public roads will be cleaned as required, using methods such as street sweepers • A soil conservationist will be engaged to provide advice regarding erosion and sediment control	CPBGG JV (e.g. Project Manager, Construction Manager, Superintendent, ESR)	Possible	Minor	8 (Moderate)

Activity	Potential Impact	Likelihood	Consequence	Risk level prior to mitigation	Mitigation Measure	Responsibility	Likelihood	Consequence	Risk level following mitigation
					• In addition to the above mitigation measures management measures from Appendix A will be implemented. • Hardstand areas and surrounding public roads will be cleaned as required using methods such as brooms, bobcat attachments or street sweepers				
	Complete or partial loss of an unexpected heritage item while undertaking general earthworks.	Possible	Moderate	13 (High)	• Any excavations, intrusive works or other operations that have the potential to impact areas of known heritage, cultural or archaeological items must not be undertaken • Any item of potential Aboriginal archaeological/cultural heritage conservation significance, or human remains discovered during the site establishment works will be managed in accordance with the Unexpected Finds Procedure provided in Appendix B7 of the CEMP. • A heritage induction will be delivered to all workers which will cover the Unexpected Heritage Items procedure	CPBGG JV (e.g. Project Manager, Construction Manager, Superintendent, ESR)	Rare	Moderate	11 (Moderate)

Activity	Potential Impact	Likelihood	Consequence	Risk level prior to mitigation	Mitigation Measure	Responsibility	Likelihood	Consequence	Risk level following mitigation
					• Area fenced off with permit for entry				
	Inappropriate disposal of waste (including, vegetation and contaminated materials) or disposal at an unlicensed waste facility	Possible	Moderate	13 (High)	• All site personnel working on-site will undergo a site induction that will detail waste and resource management measures • Additional targeted toolbox talks will be given on waste disposal as required • HAZMAT surveys will be undertaken and removal of asbestos will be undertaken prior to demolition activities (if required) • Suitably licensed waste contractors will be used for the collection and transport of all waste for either offsite processing and/or disposal to an appropriately licensed facility. Receipts for waste transfer and disposal will be checked to ensure all details are correct and retained for audit purposes. • Site inspections undertaken on a regular basis to ensure disposal practices are being adhered to. • In addition to the mitigation measures specified above, the disposal of waste will	CPBGG JV (e.g. Project Manager, Construction Manager, Superintendent, ESR)	Rare	Moderate	11 (Moderate)

Activity	Potential Impact	Likelihood	Consequence	Risk level prior to mitigation	Mitigation Measure	Responsibility	Likelihood	Consequence	Risk level following mitigation
					be managed in accordance with Appendix A.				
	Traffic impacts on local roads	Possible	Minor	8 (Moderate)	• Undertake community notifications prior to works commencing which highlight any potential traffic impacts • Designated haul routes will be used, as identified in the Environmental Assessment Documentation, including the Elizabeth Drive and The Northern Road for heavy vehicles • Measures identified in the Traffic Control Plan (TCP) (if developed) will be implemented • Drivers will be inducted on the haulage roads (eg the use of The Northern Road) and avoidance of other local roads • In addition to the above mitigation measures management measures from Appendix A will be implemented.	CPBGG JV (e.g. Project Manager, Construction Manager, Superintendent, ESR)	Unlikely	Minor	7 (Low)
	Tracking of mud from site on public roads	Possible	Minor	8 (Moderate)	• Site exit points will be fitted with appropriate controls to limit tracking of material out of site as soon as possible to limit the amount of material transported off site. Controls may include hardstand material; wheel	CPBGG JV (e.g. Project Manager, Construction Manager, Superintendent, ESR)	Unlikely	Minor	7 (Low)

Activity	Potential Impact	Likelihood	Consequence	Risk level prior to mitigation	Mitigation Measure	Responsibility	Likelihood	Consequence	Risk level following mitigation
					washes; rumble grids; rip rap etc. • Street sweepers will be used to manage sediment/mud tracking.				
	Noise and vibration impacts to sensitive receivers	Possible	Minor	8 (Moderate)	• Maximise works during the standard construction hours • All construction plant and equipment used on site will be fitted with properly maintained noise suppression devices in accordance with the manufacturer's specifications. • Erection of temporary acoustic barriers will be undertaken, where required • Community updates will be provided throughout the site establishment works, when necessary • Activities that result in high noise impacts will be subject to respite periods as outlined in NSW CoA E37 and NSW CoA E45-E47. • The Noise and Vibration Monitoring Program prepared by TfNSW and provided in Appendix B4 (CNVMP) will be implemented throughout	CPBGG JV (e.g. Project Manager, Construction Manager, Superintendent, ESR)	Unlikely	Minor	7 (Low)

Activity	Potential Impact	Likelihood	Consequence	Risk level prior to mitigation	Mitigation Measure	Responsibility	Likelihood	Consequence	Risk level following mitigation
					the duration of site establishment activities. • In addition to the above mitigation measures management measures from Appendix A will be implemented.				
	Contamination of soil or water due to a spill or leak from plant/equipment or chemicals required for construction purposes	Possible	Moderate	13 (High)	• Hazardous substance handling and use will be conducted away from drainage, stormwater lines and waterways and, wherever possible, within defined bunds • Safety Data Sheets (SDS) will be obtained for dangerous goods and hazardous substances stored onsite before their arrival • All site personnel will be responsible for ensuring that refuelling undertaken on site will be undertaken in designated areas only, outside riparian areas and well away from drainage, stormwater inlets or waterways • Hazardous materials will be stored on drip trays or have secondary containment and be located at least 30m from the dam.	CPBGG JV (e.g. Project Manager, Construction Manager, Superintendent, ESR)	Possible	Minor	8 (Moderate)

Activity	Potential Impact	Likelihood	Consequence	Risk level prior to mitigation	Mitigation Measure	Responsibility	Likelihood	Consequence	Risk level following mitigation
					• Hazardous materials will be appropriately bunded with a volume of 110 per cent of the largest receptacle • Any spills or leaks will be immediately contained and absorbed • Spill kits will be placed at strategic locations (e.g. access points, plant/ machinery storage areas) • In addition to the above mitigation measures management measures from Appendix A will be implemented.				
	Impacts on visual amenity i.e. light spill	Possible	Minor	8 (Moderate)	• Lights will be located as far away as possible and directed away from neighbours/sensitive receivers • Boundary screening will be installed in accordance with NSW CoA A21 and A22 • In addition to the above mitigation measures management measures from Appendix A will be implemented.	CPBGG JV (e.g. Project Manager, Construction Manager, Superintendent, ESR)	Unlikely	Minor	7 (Low)
	Missed opportunities to maximise the beneficial re-use of waste	Possible	Minor	8 (Moderate)	• Resource recovery will be applied to the management of waste and will include the recovery of resources for reuse-reusable	CPBGG JV (e.g. Project Manager, Construction Manager,	Possible	Negligible	3 (Low)

Activity	Potential Impact	Likelihood	Consequence	Risk level prior to mitigation	Mitigation Measure	Responsibility	Likelihood	Consequence	Risk level following mitigation
					materials generated by the site establishment and will be segregated for reuse on site, or off site, where possible • Recovery of recyclable resources generated during site establishment • Recovery of resources for reprocessing, such as the onsite mulching of cleared vegetation for use in landscaping use, in the absence of a higher beneficial use being identified • Segregation of resources for recycling for effective processing at recycling facility • Prior to the commencement of clearing, a Reuse strategy will be prepared by CPBGG JV detailing practicable options to reuse native trees or vegetation that are to be removed (refer to CFFMP).	Superintendent, ESR)			
Site facilities operation (minor ancillary facilities)	Traffic impacts on local roads	Possible	Minor	8 (Moderate)	• Designated haul routes will be used, as identified in the Environmental Assessment Documentation, including Elizabeth Drive and The Northern Road for heavy vehicles	CPBGG JV (e.g. Project Manager, Construction Manager, Superintendent, ESR)	Unlikely	Minor	7 (Low)

Activity	Potential Impact	Likelihood	Consequence	Risk level prior to mitigation	Mitigation Measure	Responsibility	Likelihood	Consequence	Risk level following mitigation
					• Measures identified in the Traffic Control Plan (TCP) (if developed) will be implemented • Drivers will be inducted on the haulage roads (eg the use of The Northern Road) and avoidance of other local roads • In addition to the above mitigation measures management measures from Appendix A will be implemented.				
	Tracking of mud from site on public roads	Possible	Minor	8 (Moderate)	• Site exit points will be fitted with appropriate controls to limit tracking of material out of site as soon as possible to limit the amount of material transported off site. Controls may include hardstand material; wheel washes; rumble grids; rip rap etc. • Street sweepers will be used to manage sediment/mud tracking.	CPBGG JV (e.g. Project Manager, Construction Manager, Superintendent, ESR)	Unlikely	Minor	7 (Low)
	Impacts on visual amenity i.e. light spill	Possible	Minor	8 (Moderate)	• Lights will be located as far away as possible and directed away from neighbours/sensitive receivers • Boundary screening will be installed, where appropriate, in accordance	CPBGG JV (e.g. Project Manager, Construction Manager, Superintendent, ESR)	Unlikely	Minor	7 (Low)

Activity	Potential Impact	Likelihood	Consequence	Risk level prior to mitigation	Mitigation Measure	Responsibility	Likelihood	Consequence	Risk level following mitigation
					with NSW CoA A21 and A22 • In addition to the above mitigation measures management measures from Appendix A will be implemented.				
	Noise and vibration impacts to sensitive receivers	Possible	Minor	8 (Moderate)	• Maximise works during the standard construction hours • All construction plant and equipment used on site will be fitted with properly maintained noise suppression devices in accordance with the manufacturer's specifications • Erection of temporary acoustic barriers will be completed, where required • Community updates will be provided throughout the site establishment works, when necessary • Activities resulting in high noise impacts will be subject to respite periods as outlined in NSW CoA E37 and E45-E47 • The Noise and Vibration Monitoring Program (Appendix B4 of CEMP) will be implemented throughout the duration of site establishment activities	CPBGG JV (e.g. Project Manager, Construction Manager, Superintendent, ESR)	Unlikely	Minor	7 (Low)

Activity	Potential Impact	Likelihood	Consequence	Risk level prior to mitigation	Mitigation Measure	Responsibility	Likelihood	Consequence	Risk level following mitigation
					• In addition to the above mitigation measures management measures from Appendix A will be implemented.).				
	Generation of dust	Unlikely	Moderate	12 (High)	• Access roads will be maintained and managed to reduce dust generation • Temporary stockpiles that have the potential to result in dust generation will be minimised at all times and comply with RMS – Stockpile Site Management Guideline (May 2015) in accordance with SW2 (Appendix B8 of the CEMP) • During high wind and/or dry conditions, CPB will ensure programming of dust generating activities is to be considered in order to reduce nuisance to neighbouring properties • Adequate dust suppression will be available and applied where required e.g., watercart, misters • In addition to the above mitigation measures management measures from Appendix A will be implemented..	CPBGG JV (e.g. Project Manager, Construction Manager, Superintendent, ESR)	Rare	Moderate	11 (Moderate)
	Generation of odour	Unlikely	Minor	7 (Low)	• It is not anticipated that any odour will be generated as	CPBGG JV (e.g. Project	Rare	Minor	6 (Low)

Activity	Potential Impact	Likelihood	Consequence	Risk level prior to mitigation	Mitigation Measure	Responsibility	Likelihood	Consequence	Risk level following mitigation
					a result of the operation of the facilities • In the event odour is identified, the source of odour will be identified and action taken to address the issue.	Manager, Construction Manager, Superintendent, ESR)			
	Contamination of soil or water due to a spill or leak from plant/equipment or chemicals	Possible	Moderate	13 (High)	• Hazardous substance handling and use will be conducted away from drainage, stormwater lines and waterways and, wherever possible, within defined bunds • Safety Data Sheets will be obtained for dangerous goods and hazardous substances stored onsite before their arrival • All site personnel will be responsible for ensuring that refuelling undertaken on site will be undertaken in designated areas only, outside riparian areas and well away from drainage, stormwater inlets or waterways • Hazardous materials will be stored on drip trays or have secondary containment. • Storage of chemicals, fuel and lubricant will be 50 m from any drainage line, aquatic habitat, flood prone	CPBGG JV (e.g. Project Manager, Construction Manager, Superintendent, ESR)	Possible	Minor	8 (Moderate)

Activity	Potential Impact	Likelihood	Consequence	Risk level prior to mitigation	Mitigation Measure	Responsibility	Likelihood	Consequence	Risk level following mitigation
					areas, and not on slopes steeper than 1:10. • Hazardous materials will be appropriately bunded with a volume of 110 per cent of the largest receptacle • Any spills or leaks will be immediately contained and absorbed • Spill kits will be placed at strategic locations (e.g. access points, plant/ machinery storage areas) • In addition to the above mitigation measures management measures from Appendix A will be implemented.				
	Bushfire	Possible	Substantial	22 (Very High)	• Prepare and implement a WHSMP that incorporate measure to manage and mitigate bushfire risk • All site personnel will be inducted on bushfire hazards and how they are to be managed • Hazardous materials will be appropriately bunded with a volume of 110% of the largest receptacle • All works involving a fire source will have a hot works permit in place with specific controls to prevent fire risk.	CPBGG JV (e.g. Project Manager, Construction Manager, Superintendent, ESR)	Rare	Substantial	16 (High)

Activity	Potential Impact	Likelihood	Consequence	Risk level prior to mitigation	Mitigation Measure	Responsibility	Likelihood	Consequence	Risk level following mitigation
					• No smoking (including e-cigarettes) will be allowed on site except at designated areas. Dedicated butt disposals will be located in all designated smoking areas. • Cutting, welding or grinding will not be undertaken on total fire ban days, unless the works takes place in an area at least 50 metres away from an ignition source and appropriate fire controls are in place • Vehicles will not be driven or idled in areas of long grass on fire ban days or after prolonged periods of dry weather				

Ongoing environmental risk and opportunities identification will be a key consideration during all Project risk assessments, as per our Risk Management Plan, including:

- Project Risk Register
- Construction Area Plan (CAP) risk assessments
- Work Packs, including Work Pack Risk Assessment
- Environmental Work Method Statements (EWMS) which address environmental risks (as applicable)
- Pre-start meetings.

CPBGG JV will prepare the risk assessment and planning documents as detailed above to ensure the Project is constructed safely, that we minimise environmental impacts and comply with Approval, licence and contractual obligations. Our robust process will include a cross-functional review and sign-off at key stages.

6.2 Site Establishment Management Approach

6.2.1 Environmental Management System

This SEMP utilises the CPB Contractors' Management System (CMS) and the requirements of the CSSI approval. The CMS is certified to AS/NZS ISO 14001:2015 Environmental management systems – requirements with guidance for use.

The CMS has been developed and implemented to ensure a consistent approach to Project delivery, and comprises the following components:

- Policies – statements of strategic intent and commitment. They define the mandatory requirements CPBGG JV expects at all levels of the Project organisation.
- Project Management Plan – outlines how the Project will be managed and supported by a suite of functional management plans.
- Procedures and Work Instructions – specify how to undertake and control specific activities. They define roles and accountabilities and list the tools or knowledge documents to be used.
- Tools – pre-formatted documents such as forms and templates that are required to be completed as part of a Procedure.
- Knowledge documents – reference material which provides context, additional information or guidance to a Policy or Procedure.
- Business Applications – Business Applications are the software tools used to manage our business and support operations.

6.2.2 Site Establishment Management Plan

This SEMP has been prepared for the Project to outline the environmental management practices and procedures that are to be followed during the ancillary facility site establishment phase of the Project.

The SEMP outlines specific environmental management and mitigation measures identified to address potential impacts for a range of environmental factors in accordance with NSW CoA A16.

The SEMP must be submitted to the Secretary of DPE for approval prior to commencement of site establishment works. Operation and decommission of the ancillary facilities would be managed in accordance with the approved CEMP and sub-plans as per NSW CoA C1.

6.2.3 Site Environmental Plans

A Site Environment Plan (SEP) is an internal construction document prepared to assist in the planning and management of specific areas. Environmental and socially sensitive areas including vegetation, heritage, sensitive receivers, waterways and contamination may be included in an SEP.

A series of SEPs will be prepared prior to the establishment of ancillary facilities. These SEPs will be used to inform construction planning and will be included in applicable Work Packs, which consist of relevant construction documents to assist supervisors to manage specific packages of work. The SEPs will serve as a simple but effective tool to identify key risk areas and to promote ongoing communication to construction personnel throughout the Project.

Leveraging the Sensitive Area Plans (Appendix C), the SEPs will be used in conjunction with Environmental Work Method Statement (EWMS) to identify key risk areas and detail management and mitigation measures to be implemented by construction personnel. The SEPs are considered to be live documents and will be regularly reviewed to reflect the ground conditions and any new environmentally sensitive areas.

6.2.4 Environmental Work Method Statement

Environmental Work Method Statements (EWMS) will be prepared for activities within or near environmentally sensitive areas and will include protection measures that minimise the risk of impacting the sensitive areas.

The requirement for EWMS is directed by TfNSW Specification G36 – Environmental Protection and by the ESR for those activities deemed to carry an inherent level of environmental risk.

Appropriate EWMS will be prepared prior to the establishment of ancillary facilities and will incorporate relevant mitigation measures and controls from this document. As a minimum, EWMS will include (G36):

- A description of the work activity, including any plant and equipment to be used
- An outline of the sequence of tasks for the activity, including interfaces with other construction activities
- Identification of any environmental and/or socially sensitive areas, sites or places
- Identification of potential environmental risks/impacts due to the work activity
- Mitigation measures to reduce the identified environmental risk, including assigned responsibilities to site management personnel
- Process/es for assessing the performance of the implemented mitigation measures.

Each EWMS will be reviewed by the relevant Project Manager and then approved by the project ESR.

Relevant conditions of the EWMS will be incorporated into Work Packs as required.

Further details on EWMS is provided in section 3.2.5 of the CEMP.

6.2.5 Utilities Management Strategy

Utility works required for ancillary site establishment will be undertaken in line with the Projects Utilities Management Plan (UMP).

Under the Infrastructure Approval for the Project, utility works may or may not be captured within the definition of construction. Utility works being undertaken for the establishment of ancillary facilities under this SEMP would be relatively low scale and low impact. Residents will be informed prior to any planned changes / interruptions to access/utilities. Specific environmental risk assessment and management and mitigation measures would require the approval of the ER prior to the commencement of works.

6.2.6 Erosion and Sediment Control Plan

Initial site establishment preliminary erosion and sediment control plans (ESCPs) will be prepared for all ancillary facilities prior to site establishment activities.

Preliminary ESCPs contain site specific details including identification of indicative locations for sediment basins, clean and dirty water flow paths, critical drainage infrastructure, site boundary and compound areas. These plans will be developed as the Project progresses and as the site conditions evolve to meet construction and permanent facilities requirements.

The ESCPs will incorporate the following:

- Location of erosion, sedimentation and water quality control measures proposed to treat stormwater before disposal
- Layout of the site cleared and protected areas and stockpiling areas
- Construction period and staging.

Information relevant to the preparation of the ESCPs will be obtained from Managing Urban Stormwater: Soils and Construction Volume 1 (Landcom 2006) (the Blue Book) and Volume 2D Main Roads Construction (DECCW 2008) and site-specific soil data.

Environmental personnel, in consultation with the Superintendent/Foreman and ESR, will prepare and update the progressive ESCPs.

A soil conservation specialist will be engaged by both TfNSW and the CPBGG JV for site establishment and the duration of construction.

The impacts on soil and water quality will be managed through these controls and the additional environmental safeguards in Appendix A of this SEMP. With these controls in place, the project should not significantly impact on soil and surface water during site establishment.

6.2.7 Construction Noise and Vibration

A desktop assessment, using Roads and Maritime Services Noise Estimator Tool, was undertaken to determine the potential impacts during establishment and operation of the facilities to the nearest receiver (the CNVIS). This assessment has been used to determine required noise mitigation measures including noise attenuation structures like hoarding. The recommended noise mitigation measures derived from Noise Estimator Tool are aligned with recommendations in the Roads and Maritime Construction Noise and Vibration Guideline 2016 and the Interim Construction Noise Guideline (DECC, 2009). The results are summarised in Table 6-3 below. Noise mitigation measures will not be required for any works within standard construction hours as the predicted noise levels will be under the NML's. Consultation will be undertaken with nearby residents notifying them of upcoming works and to keep them informed of the ancillary facility establishment and operation.

AF10 has already been established as part of a previous TfNSW road project and will be utilised temporarily by office personnel until such time as the other facilities (AF2 and 11) become available. As shown below, the nearest sensitive receiver is >150m away from the ancillary facility.

Table 6-3 Noise assessment for the site establishment and operation of ancillary facilities

Nearest Sensitive Receiver	Distance to CPBGG JV Ancillary Facility (m)	Predicted Noise Level (dB(A))	Noise Management Level (dB(A))	Recommended noise mitigation measures
Ancillary Facility Site Establishment				
2785-2782 The Northern Road, Luddenham	180m (AF1)	50	59 (Day) 54 (Evening) 46 (Night)	Predicted noise levels are within the NMLs for daytime and evening activities. Standard noise mitigation measures to be applied as per Appendix A Out of Hours works only to occur if compliant with CoA in accordance with the CoA E37, the EPL and the Interim Construction Noise Guideline (DECC, 2009).
1953-2109 Elizabeth drive, Badgerys Creek	184m (AF2)	49	52 (Day) 44 (Evening) 38 (Night)	Predicted noise levels are within the NMLs for daytime activities. Standard noise mitigation measures to be applied as per Appendix A Out of Hours works only to occur if compliant with CoA in accordance with the CoA E37, the EPL and the Interim Construction Noise Guideline (DECC, 2009). Note that this receiver is currently unoccupied. The next closest receiver is 930m away from AF2.
1953-2109 Elizabeth drive, Badgerys Creek	689m (AF3)	32	52 (Day) 44 (Evening) 38 (Night)	Predicted noise levels are within the NMLs. Standard noise mitigation measures to be applied as per Appendix A.
777-819 Luddenham Road, Luddenham	213m (AF11)	47	50 (Day) 41 (Evening) 36 (Night)	Predicted noise levels are within the NMLs for daytime activities. Standard noise mitigation measures to be applied as per Appendix A Out of Hours works only to occur if compliant with CoA in accordance with the CoA E37, the EPL and the Interim Construction Noise Guideline (DECC, 2009).
765 Luddenham Road, Luddenham	100m (AF17)	47	50 (Day) 41 (Evening) 36 (Night)	Predicted noise levels are within the NMLs for daytime activities. Standard noise mitigation measures to be applied as per Appendix A
Ancillary Facility Operation				
2785-2782 The Norther Road, Luddenham	180m (AF1)	45	59 (Day) 54 (Evening) 46 (Night)	Predicted noise levels are within the NMLs. Standard noise mitigation measures to be applied as per Appendix A.
1953-2109 Elizabeth drive, Badgerys Creek	184m (AF2)	44	52 (Day) 44 (Evening) 38 (Night)	Predicted noise levels are within the NMLs for daytime operation. Standard noise mitigation measures to be applied as per Appendix A. Out of Hours works only to occur if compliant with CoA in accordance with the CoA E37, the EPL and the Interim Construction Noise Guideline (DECC, 2009).

Nearest Sensitive Receiver	Distance to CPBGG JV Ancillary Facility (m)	Predicted Noise Level (dB(A))	Noise Management Level (dB(A))	Recommended noise mitigation measures
				Note that this receiver is currently unoccupied. The next closest receiver is 930m away from AF2.
1953-2109 Elizabeth drive, Badgerys Creek	184m (AF2 – crushing inclusive)	58	52 (Day) 44 (Evening) 38 (Night)	Predicted noise levels are up to 4dB above the NMLs for daytime operation at the nearest receiver (184m). Standard noise mitigation measures to be applied as per Appendix A. Note that this receiver is currently unoccupied. The next closest receiver is 930m away from AF2, and 1073m from the AF2 crushing area marked in Appendix B. Predicted noise levels are 32dB from 930m, 20dB below the daytime NMLs.
1953-2109 Elizabeth drive, Badgerys Creek	689m (AF3)	27	52 (Day) 44 (Evening) 38 (Night)	Predicted noise levels are within the NMLs. Standard noise mitigation measures to be applied as per Appendix A.
777-819 Luddenham Road, Luddenham	213m (AF11)	42	50 (Day) 41 (Evening) 36 (Night)	Predicted noise levels are within the NMLs for daytime operation. Standard noise mitigation measures to be applied as per Appendix A Out of Hours works only to occur if compliant with CoA in accordance with the CoA E37, the EPL and the Interim Construction Noise Guideline (DECC, 2009).
2594-2776 The Northern Road, Luddenham	145m (AF10)	47	59 (Day) 54 (Evening) 46 (Night)	Predicted noise levels are within the NMLs for daytime and evening operation. Standard noise mitigation measures to be applied as per Appendix A Out of Hours works only to occur if compliant with CoA in accordance with the CoA E37, the EPL and the Interim Construction Noise Guideline (DECC, 2009).
765 Luddenham Road, Luddenham	100m (AF17)	47	50 (Day) 41 (Evening) 36 (Night)	Predicted noise levels are within the NMLs for daytime activities. Standard noise mitigation measures to be applied as per Appendix A

Site establishment works will occur during standard construction hours or approved extended hours where possible, however some works may be required outside these hours. Should out of hours works be required, the Out-of-Hours Work Protocol provided in Appendix B of the CNVMP is to be followed. The OOHW has been prepared in accordance with NSW CoA E37, for works which is outside of standard working hours and that are not subject to an EPL. The Out-of-Hours Work Protocol requires that mitigation measures for residual noise and vibration impacts on the community are selected and implemented in consultation with the community at each affected location.

A Noise and Vibration Impact Statement (NVIS) will be prepared by CPBGG JV for any work that may exceed the noise management level (NML) and vibration criteria specified in NSW CoA E38 at any residence outside the construction work hours, or where receivers will be highly noise affected. The CNVIS will include specific mitigation measures identified through consultation with affected sensitive receivers. Specific mitigation measures detailed within the CNVIS will be implemented along with Project-wide measures identified in Appendix A. The CNVIS will be a document controlled separately to

this SEMP or other applicable plans. Therefore, an update to the CNVIS will not require this SEMP to be updated.

The CNVIS will outline mitigation measures identified through consultation with affected sensitive land user(s). The mitigation measures will be implemented for the duration of the work. A copy of the NVIS will be provided to the ER prior to the commencement of the associated work and may be provided to the Planning Secretary for information.

Noise and Vibration management and mitigation measures to be implemented are outlined Table 8-1 of the CNVMP.

The nearest buildings to the ancillary facilities are greater than 100m away and a vibratory roller (<300Kn, typically 7-12 tonnes) is likely to be the most vibration intensive equipment to be used during construction of the ancillary facilities (with the exception of AF3). The safe working distance for a vibratory roller of this size is approximately 15m for cosmetic damage (British Standard BS 7385) and approximately 100m for human comfort (DECCW). The vibratory roller will be used for site establishment activities particularly where compaction activities are required to create hardstand.

As the safe working distances will not be exceeded, structural damage from vibration is unlikely at any adjacent residential buildings. Human discomfort vibration criteria are unlikely to be exceeded, all nearby residents will be notified of the timing and duration of the works through the community consultation processes.

As per the Project EIS Amendment Report, AF2 (NCA08) operational activity (including crushing and screening) noise levels are predicted to result in 'marginal to minor' impacts at the nearest residential receivers during the daytime period.

Assessment of noise and vibration of additional crushing facility locations AF17, CAF 001 – CAF 008 have been provided in Appendix J

6.2.8 Out of Hours Works

All site establishment works including those undertaken outside standard hours will be undertaken in accordance with CoA and EPL (#21595) requirements. In line with CoA E36, the key justification for OOHW during site establishment will include the following:

- Delivery of materials required by the NSW Police Force or other authority for safety reasons
- Where it is required in an emergency to avoid injury or the loss of life, to avoid damage or loss of property or to prevent environmental harm
- Where works are deemed low impact as per CoA E36(b)
- Construction hours as permitted by an EPL
- Negotiated agreements with affected residents and land users.

For any proposed OOHW the following process will be undertaken:

1. An OOHW Permit will be prepared that summarises the activities, equipment required, location and duration and includes a detailed justification for works
2. The OOHW Permit will be submitted to the Environment Team, who will undertake a noise and vibration assessment for the OOHW. Predicted noise impacts and appropriate mitigation measures will be determined as per TfNSW CNVG
3. The CPBGG JV ESR will determine whether the justification for the OOHW works is satisfactory
4. Where a negotiated "community" agreement is sought with affected residences / landholders for the OOHW, this agreement will be submitted to the EPA for approval in line with EPL (#21595 E1.2) requirements
5. Community notification will be undertaken.
6. EPA to be notified of all OOHW.

6.2.9 Traffic Management

Road dilapidation reports will be prepared by a suitably qualified person for local roads (and associated infrastructure within the road reserve) proposed to be used by heavy vehicles for works associated with the CSSI, before the commencement of use by such vehicles as described in MCoA E95. A copy of the

Road Dilapidation Report will be provided to the relevant council within three weeks of completion of the survey and no later than one month prior to the road being used by heavy vehicles associated with the CSSI.

Any new or modified local roads, parking, pedestrian and cycle infrastructure will be designed to meet relevant design, engineering and safety guidelines, including Austroads Guide to Traffic Management. Reflecting the requirements of MCoA E96, CPBGG JV will minimise block or disrupt property access across pedestrian or vehicular paths at any time. Construction activities will also be planned to minimise disruptions to existing agricultural operations and activities in surrounding properties where feasible and reasonable unless otherwise agreed with the landowner in accordance with REMM SLP07. Ongoing consultation with surrounding landowners will be undertaken in accordance with the OCS and CSEP.

Independent Road Safety Audits will be undertaken to ensure safety performance is aligned with the relevant design, engineering and safety guidelines, including Austroads Guide to Traffic Management. Site access points will only be implemented once the road safety audit is complete and any identified actions have been implemented.

Where required, Traffic Control Plans (TCPs) will be prepared in accordance with the principles and measures outlined in AS1742.3-2009 and TfNSW Traffic Control at Worksites Manual Version 6.

TCPs and ROLs required during ancillary facility establishment may be required for the delivery of oversized items (such as site sheds) and may also be required for demolition activities.

A Traffic Control Plan (TCP) is a diagram identifying signs and devices in specific locations to allow the public and workers at the work site to be safely separated from traffic, while minimising disruption and risk to road users. A TCP generally details:

- Traffic control signage and traffic flow arrangement
- Site establishment boundary
- Speed limits
- Construction traffic access and egress
- Pedestrian and cyclist access for workers and public.

A TCP can only be prepared by someone certified in Work Site Traffic Management Plan as required under legislation.

Where new site access points are required to ancillary facilities, these will only be installed once a site-specific Construction Traffic and Transport Management Plan has been approved.

A wide range of environmental safeguards have been recommended to mitigate the effects of site establishment works on local traffic and transport including scheduling project related transport movements to avoid peak traffic, identifying heavy vehicle routes and communicating these to the drivers (Appendix A). With these environmental safeguards in place, traffic and transport is anticipated to have a low impact.

6.2.10 Parking

During site establishment activities it is expected that all construction vehicles required for site establishment works will park within the construction support sites and therefore will have no impact on on-street parking.

6.2.11 Light Spill

Ancillary facility lighting will be constructed in a manner that minimises light spill and glare impacts on nearby receivers in accordance with REMM LVIA07.

The sites would have some security lighting which may have potential light spill impacts during the evening and night-time period. The security lighting proposed for the site compound will be directed away from any sensitive receivers to ensure any light spill impact minimised.

Lights will be located as far away as possible and pointed away from neighbours and away from sensitive areas such as bedroom windows. If there is no alternative, shields and baffles will be used to help keep light spill to a minimum. All practical and reasonable steps will be taken to mitigate temporary lighting impacts as described in the urban design and visual amenity environmental safeguards listed in Appendix A. Ongoing consultation will be undertaken with affected landowners with regards to the management of light spillage during the operation of the ancillary facilities.

Temporary site lighting, for security purposes or night works, will be installed and operated in accordance with AS4282:1997 Control of the Obtrusive Effect of Outdoor Lighting and relevant Australian Standards in the series AS/NZ 1158 – Lighting for Roads and Public Spaces.

Opportunities to implement sustainability initiatives for lighting (eg. use of energy efficient globes, solar powered generators) will be considered where practicable in accordance with requirements of REMM LVIA07.

All lights will be located within a secure / fenced compound with security arrangements in place including an alarm system and security patrols.

6.2.12 Boundary Screening Approach

NSW CoA A21 and A22 require boundary screening to be erected around all construction ancillary facilities that are adjacent to sensitive receivers for the duration of construction unless otherwise agreed with affected residents, business operators and landowners. This screening must minimise, as far as practicable, the visual impacts on adjacent sensitive receivers.

Chain wire fencing with shade cloth (TfNSW branded) will be erected around all ancillary facilities with lockable gates for security. The template for the TfNSW branding is to be approved by TfNSW. This chain wire fencing with shade cloth will also reduce visual and air quality impacts by providing a barrier between ancillary facilities and receivers in accordance with NSW CoA E1. This screening will be installed as early as possible within the site establishment phase to provide visual screening.

In accordance with CoA A23, all signage on hoardings surrounding the ancillary facilities will include the CSSI name, application number, telephone number, postal address and email address.

The noise and vibration, air quality, urban design and visual amenity environmental safeguards provided in Appendix A have been provided to avoid, reduce and managed identified potential visual impacts during site establishment.

6.2.13 Contamination

Conditions E85 and E86 require a detailed site investigation followed by the preparation of a Detailed Site Investigation Report prior to the commencement of works that would result in a disturbance of potential or contaminated soils, materials, groundwater or sediment. The Detailed Site Investigation (DSI) Reports will be undertaken by a certified Contaminated Land Consultant and address the requirements of E86. On completion, all DSI Reports will be submitted to the Planning Secretary for information.

If an ancillary facility site is identified during the DSI as requiring remediation, a Remediation Action Plan (RAP) will be prepared and implemented. Remediation works are outside of the scope of this SEMP and will be undertaken in accordance with the Contaminated Land Management Sub-Plan (Appendix B3 of the CEMP).

None of the ancillary facilities identified within this SEMP are located within Areas of Environmental Interest (AEI) with regards to contaminated land, so therefore no DSI's are required. AF3 is located adjacent to a potential area of existing fill.

In the event of encountering unexpected finds of contamination the Unexpected Contaminated Land Finds in Appendix D will be followed.

The contamination environmental safeguards in Appendix A will be implemented during site establishment to minimise risks arising from disturbance and excavation of land and disposal of soil. TfNSW R44 specification requirements regarding the stripping of topsoil are to be followed by CPBGG JV during topsoil stripping operations at the ancillary facilities.

6.2.14 Heritage

If any unexpected heritage items (including human remains) are encountered, works potentially affecting the find will cease and the M12 TfNSW Management Procedure – Unexpected Heritage Finds and Human Remains Procedure (Appendix C of TfNSW CHMP) will be implemented. A copy of this is contained in Appendix D.

6.2.15 Flooding

Ancillary facilities will be laid out such that flows are not significantly impeded. Through the implementation of the environmental safeguards detailed in Appendix A, flood impacts are anticipated to be effectively mitigated.

Where the potential exists for the obstruction of overland flows or increased run-off (as a result of hardstand areas) a contingency plan will be prepared to manage a potential flood event and will outline procedures to reduce risks including worker safety, removal of all plant/equipment and stabilising exposed areas.

A Flood Management Sub-Plan (M12W-CPBGG-ALL-EN-PLN-000010_CFMP) has been prepared for the project outlining the measures required to be implemented to minimise environmental impacts from flooding during construction of the project. The projects Emergency Response Plan contains details of actions required to be undertaken in the event of flooding.

6.2.16 Trees

As far as practical, ancillary facilities will be configured so as to not directly impact on trees that would not already be directly impacted by the Project. Storage areas and associated works will be located in cleared and otherwise disturbed areas away from residential areas where feasible and reasonable. Where trees can be retained, exclusion fencing will be erected to protect these trees from construction activities.

The clearing of vegetation for ancillary facilities will be limited to the minimum amount necessary to construct the Project.

Pre-clearance inspections, hold points and tree clearing would be undertaken in line with TfNSW Specification G40 Clearing and Grubbing. The inspection and relocation of any effected native fauna will be undertaken for both threatened and non-threatened species.

As required by MCoA E15, prior to vegetation clearance and where reuse of native trees and vegetation cannot be removed from the project, consultation with relevant councils, Western Sydney Parklands, Landcare groups and relevant government agencies to determine if there is an interest in the reuse of hollows, tree trunks, logs, mulch, bush rock, root balls, collected plant material, seeds and/or propagated plants could be used for habitat enhancement and rehabilitation work. If there is an interest, then appropriate arrangements will need to be made with interested parties.

7 Compliance management

7.1 Roles and responsibilities

The Project organisational structure and overall roles and environmental responsibilities are outlined in Section 3.3 of the CEMP. Specific responsibilities for the implementation of environmental management measures during site establishment works are detailed in Table 6 3 and Section 3.3 of the CEMP.

7.2 Training

All site personnel (including sub-contractors) will undergo site induction training relating to site establishment management issues prior to site establishment commencing in accordance with section 3.5 of the CEMP. The induction training will address elements related to site establishment management, including:

- Existence and requirements of this SEMP and all plans and procedures prepared under the CEMPs
- Relevant legislation, regulations and conditions of approval
- Incident response, management and reporting
- Environmentally sensitive locations and exclusion zones
- Specific species likely to be affected by the works and how these species can be recognised
- Site flagging protocol
- Erosion and sediment controls
- Fauna rescue requirements
- Boundaries for vegetation clearing
- Fauna and fauna habitat management
- Weed control measures
- General site establishment management measures
- Unexpected finds procedures (heritage, contamination, flora and fauna)
- Specific responsibilities for the protection of site establishment
- All requirements of Appendices contained within this SEMP.

Targeted training in the form of toolbox talks or specific training will also be provided to personnel with a key role in site establishment management or those undertaking an activity with a high risk of environmental impact. Site personnel will undergo refresher training at not less than six monthly intervals.

The ESR will review and approve the induction training program prior to the commencement of construction and monitor implementation.

Daily pre-start meetings conducted by CPBGG JV Foreman/ Site Supervisor will inform the site workforce of any environmental issues relevant to site establishment that could potentially be impacted by, or impact on, the day's activities.

Further details regarding staff induction and training are provided in Section 3.5.3 of the CEMP.

7.3 Licences and permits

A number of approvals, permits and licenses have and/or will be obtained for construction works. The following approvals and licences have been or will be obtained by TfNSW:

- Infrastructure Approval under Part 5, Division 5.2 of the EP&A Act – SSI 9364 granted by the Minister for Planning on 23 April 2021
- A Commonwealth controlled action approval from the Department of Agriculture, Water and the Environment (DAWE) under Part 8 of the EPBC Act – EPBC 2018/8286 granted by the Minister for Environment on 3 June 2021.
- An EPL under Schedule 1 of the Protection of the Environment Operations Act 1997 (POEO Act) for 'road construction' and for 'extractive activity' where the Project meets the criteria. The EPL for the M12 West project will be transferred to CPBGG JV. The EPL has not been issued by the EPA at the time of this SEMP preparation.

7.4 TfNSW QA Hold Points

Table 7-1 Relevant TfNSW QA Hold Points

Document Reference	Hold Point Clause	Description
G1 Job Specific Requirements –M12 Motorway (West)	10	On-site establishment of compound.
	10	On-site establishment of stockpile sites.
	13	Commencement of construction activities
G4	1.3	Submission of details of Principal's project accommodation
G36 Environmental Protection –M12 Motorway (West)	3.1	Submission of amended CEMP and selected CEMS documents
	3.2.2	Evidence of approvals, licences and permits obtained
	3.2.4	Submission of EWMSs
	3.5.2	Submission of Draft Environmental Induction/Training Materials
	3.7.3	Submission of Complaints Management System
	3.10	Verification that environmental nonconformities has been rectified
	4.2.4	Submission of Remedial Action Plan for contaminated land
	4.7	Building Condition Inspection Reports
	4.11	Copy of completed and signed "s.143 Notice" and supporting documents
	4.13	Working in or near environmentally sensitive areas
	4.15.2	Submission of pre-construction land condition assessment report for each area you intend to occupy for your site facilities
G38 Soil and Water Management – M12 Motorway (West)	1.2.7	Submission of evidence of appropriate Erosion and Sediment Control personnel
	2.1.2	Submission of SWMPs
	3.1	Submission of an ESCP(s) and, where required, WOMP for a section of the Work Under the Contract.
	3.9	Commencement of construction of any activities in flood prone areas
G40 Clearing and Grubbing – M12 Motorway (West)	2.4	Submission of Clearing and Grubbing Plan and other required documents prior to clearing any area.
	6.1	Submission of Weed, Pest and Pathogen Management Plan prior to clearing in any area

7.5 Monitoring

Monitoring will be undertaken to validate the impacts predicted for site establishment, to measure the effectiveness of environmental controls and implementation of the CEMP and to address approval requirements. In addition to noise and vibration, and water quality monitoring, CPBGG JV ESR will include an assessment of the ancillary facilities activities against the performance outcomes (outlined in Table 2 1). This will be documented in the Monthly Environmental Report to monitor the environmental performance of the Ancillary Facilities. Requirements and responsibilities in relation to monitoring are documented in Section 3.9 of the CEMP.

In accordance with NSW CoA A16 and the requirements of NSW CoA C14, an Overarching Noise and Vibration Monitoring Program has been developed by TfNSW that includes:

- Noise and vibration monitoring at representative residential and other locations (including at the worst- affected residences), subject to property owner approval, to confirm noise and vibration levels during site establishment and operation
- Noise monitoring during the day, evening and night time periods for the duration of site establishment and operation, covering the range of activities (including worst-case noise management levels) being undertaken
- Method and frequency for reporting monitoring results
- Procedures to identify and implement additional mitigation measures where monitoring indicates noise and/or vibration levels in excess in excess of noise and vibration criteria.

The Overarching Noise and Vibration Monitoring Program was approved by DPIE on 22/12/2021. Monitoring for noise will be undertaken in accordance with this approved monitoring program.

Table 7-2 outlines the proposed monitoring requirements for site establishment activities associated with the establishment of the project's ancillary facilities.

Table 7-2 Monitoring Requirements

Environmental Aspect	Monitoring	Timing / Frequency
Noise	Attended monitoring to assess noise levels against those that were predicted during the desktop assessment.	Monthly
Air Quality – Dust	Visual monitoring of dust generating activities during site establishment earthworks.	During site establishment
Water Quality Discharge	Quality of water being discharged from licenced discharge points during site establishment activities in accordance with NSW CoA and EPL requirements.	Prior to water quality discharge

7.6 Inspections

The ESR (or delegate) will undertake weekly and post rainfall inspections of the ancillary facilities sites to evaluate the effectiveness of environmental controls. The ESR (or delegate) will record inspection findings on the environmental inspection checklist within CPB's Synergy reporting system. If any maintenance and/or deficiencies in environmental controls or in the standard of environmental performance are observed, they will be recorded on the checklist and action assigned to responsible party for completion and close out. Records will also include details of any maintenance required, the nature of the deficiency, any actions required and an implementation priority

Inspections of sensitive areas and activities with the potential to be impacted by site establishment activities will occur for the duration of the construction. Requirements and responsibilities in relation to inspections are documented in Section 3.9 of the CEMP.

7.7 Auditing

7.7.1 Independent audits

Independent audits will be undertaken in accordance with section 3.9.3 of the CEMP.

7.7.2 Internal audits

Internal auditing will be undertaken by CPBGG JV on a six-monthly basis in accordance with section 3.9.3 of the CEMP to verify compliance with:

- This SEMP
- Approval requirements (CoAs and REMMS)
- Any relevant legal and other requirements (e.g. licenses, permits, regulations, TfNSW contract documentation, including specifications).

An audit checklist will be developed and amended as necessary to reflect changes to this CEMP, subsequent approvals and changes to Acts, regulations or guidelines.

All internal environmental audits will be undertaken in accordance with AS/NZS ISO 19011.

7.8 Reporting and identified records

Reporting requirements and responsibilities are documented in Section 3.9.4 and 3.9.5 of the CEMP.

CPBGG JV will be required to maintain accurate records substantiating all activities associated with construction or relevant to the conditions of approval, including measures taken to implement this SEMP in accordance with section 3.11 of the CEMP. Records will be made available to the DPE and DAWE, within the timeframe nominated in the request.

In addition, key identified records relevant to this SEMP as specified by TfNSW QA G01, G36, G38 and G40 are identified in Table 7-3.

Table 7-3 Identified Records

Document Reference	Identified Records Clause	Description
G1 Job Specific Requirements –M12 Motorway (West)	10	Plans of proposed compound
	14	Pre and post construction land condition assessment reports
G4 Principal's Project Accommodation	1.3	Details of Principal's project accommodation
G36 Environmental Protection – M12 Motorway (West)	2	Alternative environmental control measures
	3	Contractor's Environmental Management Plan (CEMP), Plans & Sub-Plans, procedures and EWMS
	3.2.1	Final Risk Workshop Report
	3.2.2	Approvals, licences and permits
	3.2.5	Low Impact Work Method Statement
	3.5	Records of communications and environmental induction training
	3.6	Extended working hours and associated advice to Principal and relevant authorities
	3.7.1	A report for each occasion when the Site is visited by the EPA and/or other Government Agencies
	3.7.3	Reports on complaints about any environmental issue and actions
	3.8	Records of emergency responses
	3.9	Records of environmental management performance monitoring and measurement
	3.9	Environmental audit reports

Document Reference	Identified Records Clause	Description
	3.10	Records of corrective and preventative measures to address nonconformities of environmental obligations
	3.11	CEMS and CEMP compliance records
	4.2	Site Contamination Assessment Report Section A Site Audit Statement and accompanying Site Audit Report LTEMP
	4.3	Records of spill prevention measures and responses
	4.4.2	Report on the conformity, or otherwise, of mobile non-road diesel plant and equipment used for the Work Under the Contract with the relevant United States Environmental Protection Agency, European Union (EU) standards or approved equivalent emission standards
	4.7	Building Condition Inspection Reports
	4.8	Report any injury or death of threatened species to the Principal
	4.11	Waste Management Register
	4.11	"s.143 Notices" for transporting and depositing of waste
	4.12	Pesticide Records Sheets
	4.14	Environmental events and investigation reports
	4.15.2	Pre-construction land condition assessment reports
	4.15.3	Post-construction land condition assessment reports
	4.16	Contamination/ Validation Reports verifying that the restoration has been completed satisfactorily
	4.17.2	Real time monitoring records of the locations of all heavy vehicles used for off-Site haulage.
	5.1	Principal's Audit Reports
	5.3	Contractor's Audit Reports
	6	Construction Compliance Reports
G38 Soil and Water Management – M12 Motorway (West)	3.1.2	Register of inspection and maintenance measures
	3.4	Dewatering procedure records
	3.5	Approval notices to locate stockpiles on private land
	3.8	Approvals and licences to extract water
	3.9	Flood Management Sub-Plan
	3.10	Site Stabilisation Sub-Plan
	2.4	Report on the presence of weeds and unsound trees

Document Reference	Identified Records Clause	Description
G40 Clearing and Grubbing – M12 Motorway (West)	2.4	Clearing and Grubbing Plan

7.9 Environmental incidents and non-compliances

7.9.1 Environmental Incidents

Environmental Incidents are to be managed in accordance with section 3.8 of the CEMP.

In the event of an environmental incident, the following procedures and plans shall be implemented:

1. TfNSW Environmental Incident Classification and Reporting Procedure (M12PPW-ADAP-ALL-EN-PLN-000003_E_S3_OCEMP APP A7) – contained in Appendix E (and A7 of the CEMP)
2. CPB Contractors' Manage and Report SHE Incidents Procedure will also be implemented.
3. The PIRMP - Refer to Appendix A9 of CEMP

These system documents provide the following details relevant to Construction related incidents and emergencies:

- Types of environmental incidents
- Criteria for classifying of environmental incidents
- Processes for systematically responding to and managing emergency situations
- Processes, and legal requirements (e.g. Acts, Regulations, EPL), for reporting and notification of an environmental incident.

The TfNSW procedure covers the management of environmental events including:

- A report-only event
- A non-compliance
- Regulatory action received
- An environmental incident.

The TfNSW Incident Procedure details:

- Incident types
- Criteria for classifying environmental incidents
- Processes and legal requirements (eg Acts, Regulations, EPL), for reporting and notification of an environmental incident.

The TfNSW Incident Procedure covers the management of events including:

- Spills of fuels, oils, chemicals and other hazardous materials
- Unauthorised discharge from sediment basins or other containment devices
- Potential contamination of waterways or land
- Accidental starting of a fire or a fire breaking out of containment
- Any potential breach of legislation, including a potential breach of a condition of an EPL requirement, MCoA or any agency permit condition
- Unauthorised dumping of waste
- Unauthorised clearing or clearing beyond the extent of the Project boundary or premises
- Inadequate installation and subsequent failure of temporary erosion and sediment controls
- Unauthorised damage or interference to threatened species, endangered ecological communities or critical habitat
- Unauthorised harm or desecration to Aboriginal objects and Aboriginal places
- Works undertaken that are not in accordance with a Project approval.

All environmental events (incidents, significant environmental incidents, report only events, non compliances and regulatory action) under the TfNSW Incident Procedure, will be notified verbally

immediately to the TfNSW Project Manager and TfNSW Environmental and Sustainability Manager (or delegate) and the ER.

Incident reports will be provided to TfNSW Representative and the Environmental Representative in accordance with the TfNSW Incident Procedure, including lessons learnt from each environmental incident and proposed measures to prevent the occurrence of a similar incident. All efforts will be undertaken immediately to avoid and reduce impacts of incidents and suitable controls put in place. Incidents will be closed out as quickly as possible, taking all required action to resolve each environmental incident. This notification process is in addition to other regulatory incident reporting requirements, including a Pollution Incident Response Management Plan (PIRMP) required by an EPL.

In accordance with NSW CoA A44 and A45, the Planning Secretary must be notified via the Major Projects Website immediately after the Proponent becomes aware of an incident. The notification must identify the CSSI (including the application number and the name of the CSSI if it has one) and set out the location and nature of the incident. Subsequent notification must be given and reports submitted in accordance with the requirements set out in Appendix A of the NSW CoA.

The EPA will be notified of any pollution incidents on or around the site via the EPA Environment Line (telephone 131 555) in accordance with Part 5.7 of the Protection of the Environment Operations Act 1997 (NSW) (POEO Act). The circumstances where this will take place include:

i) it involves actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial, or

ii) it results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding $10,000 (or such other amount as is prescribed by the regulations).

Where an incident affects commonwealth protected matters, DAWE are required to be notified in accordance with Commonwealth CoA 11 and 12.

Where an incident involves a potential impact to an Aboriginal site, relevant Heritage NSW and Registered Aboriginal Parties will be notified and their input sought in closing out the incident.

All other environmental incidents, reportable events and regulatory action would be reported to TfNSW as outlined in the Roads and Maritime's Environmental Incident Classification and Reporting Procedure.

CPBGG JV will provide all records of the environmental incidents and regulatory action to TfNSW Project team.

7.9.2 Environmental Nonconformities

Environmental non-conformities are to be reported and managed in accordance with section 3.10 of the CEMP.

Any member of the Project team may raise a non-conformance or improvement opportunity. The Quality Plan describes the process for managing non-conforming work practices and initiating corrective/preventative actions or system improvements.

The ER, TfNSW Representative or public authority may also raise a non-conformance or improvement opportunity using the same process.

A non-compliance is the failure to comply with the requirements of the Infrastructure Approval or any applicable licence, permit or legal requirements. Under the Infrastructure Approval, a non-compliances can also be classified as an incident and therefore should be managed in accordance with section 7.9.1 (and Section 3.8 of the CEMP). Non-compliances may be identified through the review of compliance, environmental auditing or incident management and are to be notified in accordance with the following:

- **NSW CoA A46**, the Planning Secretary must be notified in writing via the Major Projects website within seven days after TfNSW becomes aware of any non-compliance.
- **NSW CoA A47**, a non-compliance notification must identify the Project and the application number for it, set out the condition of approval that the Project is non-compliant with, the way in which it does not comply and the reasons for the non-compliance (if known) and what actions have been, or will be, undertaken to address the non-compliance. The ER will also be informed of any non-compliance.
- **NSW CoA A48**, a non-compliance which has been notified as an incident does not need to also be notified as a non-compliance.
- **Commonwealth CoA 11**, DAWE must also be notified in writing of any non-compliance with the conditions or non-compliance with the commitments made in plans required in accordance with

Commonwealth CoA 5a or 5b. The notification must be submitted as soon as practicable and no later than 2 business days after becoming aware of the non-compliance.

A non-conformance is the failure or refusal to comply with the requirements of the CEMP and supporting documentation. For each non-conformance identified a corrective/preventative action (or actions) must be implemented. In addition, any environmental management improvement opportunities can be initiated as a result of incidents or emergencies, monitoring and measurement, audit findings or other reviews. Improvement opportunities may also result in the implementation of corrective/preventative actions.

Corrective/preventative actions and improvement opportunities will be entered into the contractor's quality system database and include detail of the issue, action required and timing and responsibilities. The record will be updated with date of close out and any necessary notes. The database will be reviewed regularly to ensure actions are closed out as required.

Non-conforming activities may be stopped, if necessary, by the ESR, Environmental Team or Project / Site Engineer following consultation with the Construction Director or delegate. The works will not commence until a corrective / preventative action has been closed out. The ER may also stop works in these circumstances. In such circumstances a non-conformance report must be prepared in accordance with the Quality Plan.

After becoming aware of an environmental non-compliance, CPBGG JV will notify TfNSW immediately of becoming aware of a non-compliance and TfNSW will notify DPE via the Major Projects Website within seven days in accordance with NSW CoA A46. The notification must identify the CSSI (including the application number and the name of the CSSI), set out the condition/s that is non-compliant, the nature of the breach; the reason for the non- compliance (if known) and what actions have been, or will be, undertaken to address the non-compliance. The ER may also include environmental non-compliances within the Environmental Representative Monthly Report.

MCoA A48 states that a non-compliance which has been notified as an incident does not need to also be notified as a non-compliance.

Procedures for rectifying any non-compliance identified during environmental auditing, review of compliance or incident management are also documented in the Compliance Tracking Program. Following corrective action, the CPBGG JV ESR, will close out the noncompliance.

7.10 Community Engagement

Prior to establishment of ancillary facilities, a Community and Stakeholder Engagement Plan (CSEP) will be prepared in accordance with the project Overarching Communications Strategy (OCS) which will include community and stakeholder management requirements including during the site establishment phase.

The Community Engagement Team (CET) will engage with residential and commercial properties that adjoin or are adjacent to the ancillary facilities.

Engagement methods will include door knocking residents impacted by the ancillary facilities, letter box drops and community updates as applicable.

Any comments or feedback regarding boundary screening and noise walls will be considered by CPBGG JV. The site design plan will detail the type and height of the boundary screens for each location.

A public liaison officer will be appointed for the construction ancillary facility(s) in accordance with CoA B6 and the communications strategy to assist the public with questions and complaints they have at any time during site establishment.

In accordance with CoA B7, TfNSW will provide the following methods of contact:

- A 24-hour toll-free telephone number for the registration of complaints and enquires about the CSSI
- A postal address to which written complaints and enquires may be sent
- A mediation system for complaints unable to be resolved.

It is noted that CPBGG JV will provide an email address to which complaints and enquiries about the CSSI may be transmitted ti,

The above information will be accessible to all in the community regardless of age, ethnicity, disability or literacy level.

The project will undertake community consultation activities as detailed in the TfNSW OCS as required by NSW CoA B1 – B5

The telephone number, postal address and email address, as well as relevant Project information as required by NSW CoA B8 would be included on designated pages of the Project website.

7.10.1 Complaints Management

During the site establishment phase, any comments, feedback or complaints relating to noise, air quality and other amenity issues will be addressed in accordance with TfNSWs Overarching Communication Strategy (OCS) and Complaints Management System (CMS), and CPBGG JV's Community and Stakeholder Engagement Plan (CSEP). A Complaints Register will be maintained for a minimum of 12 months following the completion of construction and the following information will be recorded:

- Number of complaints received
- The date and time of the complaint
- The method by which the complaint was made
- Any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect
- Nature of the complaint
- Means by which the complaint was addressed and whether resolution was reached, with or without mediation
- If no action was taken, the reason(s) why no action was taken.

Complainants will be advised that the Complaints Register may be forwarded to Government agencies to allow them to undertake their regulatory duties (eg. DPE and EPA).

8 Review and improvement

8.1 Ancillary Facility Approval Pathways

Approval pathways for ancillary facilities are identified in the Planning Approval as follows:

- Ancillary facilities identified in the Environmental Assessment documentation;
- Ancillary facilities meeting the requirements of NSW CoA A15: Establishment of these ancillary facilities (listed in Section 4) will commence following approval of this SEMP (as per NSW CoA A17) and prior to approval of the CEMP. The SEMP will be submitted to DPE for review and approval, and
- Minor construction ancillary facilities not detailed in the Environmental Assessment documentation: Minor construction ancillary facilities not detailed in the Environmental Assessment documentation which would be of minimal environmental impact may be approved by the ER under NSW CoA A20. Minor ancillary facilities are defined as:

Lunch sheds, office sheds, portable toilet facilities, car parking, material storage, and the like, can be established and used where they have been assessed in the documents listed in Condition A1 or satisfy the following criteria:

a) are located within or adjacent to the Construction Boundary; and

b) have been assessed by the ER to have -

a. minimal amenity impacts to surrounding residences and businesses, after consideration of matters such as compliance with the ICNG, traffic and access impacts, dust and odour impacts, and visual (including light spill) impacts, and

b. minimal environmental impact with respect to waste management and flooding, and

c. no impacts on biodiversity, soil and water, and heritage items beyond those already approved under other terms of this approval.

There are no minor construction ancillary facilities proposed during the site establishment works. In the event that minor construction ancillary facility is identified following approval of the CEMP, an assessment will be undertaken in accordance with MCoA A20 and submitted to the ER for approval.

8.2 Continuous improvement

Continuous improvement will be achieved through ongoing measurement and evaluation, audit and review of the effectiveness of this SEMP. Regular compliance activities, such as weekly inspections, observations and monitoring will be undertaken throughout the site establishment of the ancillary facilities. Subcontractors' works will also be monitored as part of the general weekly inspections, observations, monitoring and audits. This will be implemented through the program for monitoring the performance outcomes in Section 3

Environmental controls will be inspected weekly to ensure their ongoing suitability and effectiveness. Environmental monitoring will be carried out to establish pre-construction benchmarks, confirm compliance with the conditions of environmental Approvals, licences and laws and to provide early indication of potential adverse impacts to the environment or community.

The process for ongoing risk identification and management is outlined in Section 3.2.1 of the CEMP.

8.3 SEMP update and amendment

The processes described in Section 3.8, 3.10 and 3.12 of the CEMP may result in the need to update or revise this Plan. Any revisions to the SEMP will be in accordance with the process outlined in Section 3.13 of the CEMP including submission to the Environmental Representative for approval in accordance with NSW CoA A34(i).

In accordance with NSW CoA A17, a new or revised SEMP must be prepared for the Ancillary Facilities if, upon the completion of Early Works but prior to construction of the Project, additional activities are required to establish the facilities or there is a change to the layout. In this case, the new or revised SEMP must be prepared in accordance with NSW CoA A16 and approved by the Secretary of DPE before commencement of the additional activities or change to site layout.

This Plan will be updated:

- To add/amend ancillary facilities identified in the EIS
- To reflect changes to the environment or generally accepted environmental management practices, new risks to the environment, any hazardous substances, contamination or changes in law
- Where requested or required by DPE or any other Authority
- In response to internal or external audits or quarterly management reviews.

The updated SEMP will be endorsed by the Construction Environmental Site Representative and approved internally by the Project Director.

Minor amendments to this SEMP must be approved by the Environmental Representative (ER) in accordance with NSW CoA A34(i).. Major amendments will require approval by DPE.

Appendix A – Management and Mitigation Measures

Ref #	Management and Mitigation Measures	Timing	Responsibility
General			
G1	Environmental awareness training and inductions must be provided to all workers prior to commencing work on site. This training will include (at a minimum): • environmental risks • environmental procedures, management measures and conditions of approval • environmentally sensitive locations and exclusion zones • requirement to report and the process for reporting environmental issues on site • requirement to report and the process for reporting damaged environmental controls • erosion and sediment control • incident management process • site staff environmental responsibilities.	Pre-Construction	ESR
G2	Toolbox talks are to include environmental issues and controls when works commence in a new area, a new activity and/or when environmental issues arise on site.	Construction	ESR
G3	Environmental Work Method Statements (EWMS) are required for the following activities/locations (at a minimum): • clearing and grubbing • earthworks • drainage works • utilities works • works within or adjacent to a watercourse • any other activities as requested by the Principal. All EWMS will be submitted to the Principal's Environment staff for review and endorsement prior to commencement of works. The EWMS must include but not be limited to the following: • description of the works/activities including machinery • outline of the sequence of work/activities, including interfaces with other construction activities (for example the interface between cut and fill areas, stabilisation of exposed areas, excavation for an installation or upgrade of culverts) • identification of potential environmental risks/impacts due to the works/activities which is to include risks associated with wet weather events • evaluation of methods to eliminate/reduce the environmental risk • mitigation measures to reduce environmental risk • any safeguards resulting from consultation with public authorities and other stakeholders, where appropriate	Pre-construction & Construction	ESR

Ref #	Management and Mitigation Measures	Timing	Responsibility
	• a map / diagram indicating the locations of sensitive locations (such as exclusion zones, threatened species, heritage items etc), the likely potential environmental impacts and work areas as well as environmental controls • identification of works areas and exclusions areas • details of a process for progressive review, for example monitoring processes and mitigations to eliminate/reduce environmental risks/impacts.		
G4	Site inspections to monitor environmental compliance and performance will be undertaken during construction at appropriate regular intervals.	Construction	ESR Project Director Site Foreman
G5	TfNSW *Environmental Incident Classification and Management Procedure* is to be followed in the event of an incident.	Construction	ESR Project Director Site Foreman
Biodiversity			
BI1	Tree protection fencing must be established around the perimeter of the TPZ. If the protective fencing requires temporary removal, trunk, branch and ground protection must be installed and must comply with AS 4970-2009 - Protection of trees on development sites. Existing fencing and site hoarding may be used as tree protection fencing.	Construction	Project Director Site Foreman
BI2	Parking of vehicles and storage of plant/equipment is to occur on existing paved areas. Where this is not possible, vehicles and plant/equipment are to be kept away from environmentally sensitive areas and outside the dripline of trees.	Construction	Project Director Site Foreman
BI3	Where possible, stockpiling or storage of construction materials will occur in areas already cleared.	Construction	Project Director Site Foreman
BI4	Works impacting hollow-bearing trees will be supervised by a qualified wildlife carer and/ or ecologist to enable any fauna to be captured and relocated into suitable habitat nearby.	Construction	ESR Site Foreman
BI5	Invasive weeds are to be managed according to requirements under the *Biosecurity Act 2015* (NSW) and the RTA Biodiversity Guidelines 2011.	Construction	Project Director Site Foreman
BI6	Minimise soil transportation within, into or out of the site to reduce the spread of weeds. Machinery will be free of weed material before entering and exiting the work area.	Construction	Project Director Site Foreman
BI7	Ecologist will undertake an inspection for weeds prior to clearing.	Construction	ESR
B18	Pre-clearance inspections, hold points and tree clearing will be undertaken in line with TfNSW Specification G40 Clearing and Grubbing. The inspections and relocation of any effected native fauna will be undertaken for both threatened and non-threatened species.	Pre-Construction	ESR
Soils and Water Quality			

Ref #	Management and Mitigation Measures	Timing	Responsibility
S1	An ESCP will be prepared prior to construction and is to include as a minimum: • identify site catchment and sub-catchments, high risk areas and sensitive areas • sizing of each of the above areas and catchments • the likely run-off from each sub-catchment • separation of on-site and off-site water • the direction of run-off and drainage points during each stage of construction • direction of flow of on-site and off-site water • the locations and sizing of sediment basins or sumps and associated catch drains and/or bunds • the locations of other erosion and sediment control measures (e.g. rock check dams, swales and sediment fences) • controls/measures to be implemented on wet weather events • a mapped plan identifying the above • a dewatering procedure for onsite water and basins • a process for reviewing and updating the plan on a fortnightly basis and/or when works alter.	Pre-Construction	ESR Project Director Site Foreman
S2	If dewatering is required, a procedure will be prepared for dewatering activities. The dewatering procedure is to comply with *RMS Technical Guideline – Environmental Management of Construction Site Dewatering.* The procedure will include at a minimum: • a map showing areas of the proposal that will require dewatering • detailed description and justification of all selected dewatering methods. • description of onsite water reuse requirements. • a map showing proposed discharge locations for any offsite discharge. • design requirements for each offsite discharge location to prevent erosion at the discharge location or in the receiving environment. • water quality objectives relevant to the type of dewatering activity. • description of the water quality treatment techniques to be used. • water sampling and testing regime to validate water quality prior to and (if required) during dewatering, including to establish appropriate waste disposal methods. • requirements to manage encounters with groundwater or contaminated water.	Pre-Construction	ESR
S3	Should groundwater be encountered during excavation works, groundwater will be managed in accordance with the requirements of the Waste Classification Guidelines (EPA, 2014) and Water Discharge and Reuse Guidelines (TfNSW, 2015).	Construction	ESR Project Director Site Foreman
S4	A contingency plan will be prepared to manage a potential flood event during construction and will outline procedures to reduce risks including worker safety, removal of all plant/equipment and stabilising exposed areas.	Pre-Construction	ESR Project Director Site Foreman
S5	All stockpiles will be designed, established, operated and decommissioned in accordance with the RMS *Stockpile Site Management Guideline, 2011.*	Pre-Construction & Construction	Project Director Site Foreman

Ref #	Management and Mitigation Measures	Timing	Responsibility
S6	Controls are to be implemented at exit points to minimise tracking soil and particulates onto pavement surfaces.	Construction	Project Director Site Foreman
S7	Any material transported onto pavements will be swept and removed at the end of each working shift and prior to rainfall where practicable and safe to do so.	Construction	Project Director Site Foreman
S8	Erosion and sediment controls to be installed in all construction areas where soil disturbance is going to occur, prior to soil disturbance occurring.	Construction	Project Director Site Foreman
S9	Erosion and sediment controls will be installed to: Minimise sediment moving off-site and sediment laden water entering any water course, drainage lines, or drain inlets Reduce water velocity and capture sediment on site Minimise the amount of material transported from site to surrounding pavement surfaces Divert off site water around the site.	Construction	Project Director Site Foreman
S10	Erosion and sedimentation controls are to be checked and maintained on a regular basis and after a rain event of 10mm or greater (including clearing of sediment from behind barriers) and records kept and provided on request.	Construction	Project Director Site Foreman
S11	Weather conditions and forecasts (including rainfall prediction maps) will be monitored daily and the relevant information passed on to site personnel allow for adequate planning for significant rain events.	Construction	ESR Project Director Site Foreman
S12	Erosion and sediment control measures are not to be removed until the works are complete, and areas are stabilised.	Construction	Project Director Site Foreman
S13	Work area are to be stabilised progressively during the works.	Construction	Project Director Site Foreman
S14	Vehicle wash down and/or cement truck washout is to occur in a designated bunded area and least 50 metres away from water bodies and surface water drains.	Construction	Project Director Site Foreman
Storage and Use of Hazardous Materials			
HM1	The storage of hazardous materials, and refuelling/maintenance of construction plant and equipment to be undertaken in clearly marked designated areas that are designed to contain spills and leaks.	Construction	Project Director Site Foreman
HM2	Spill kits, appropriate for the type and volume of hazardous materials stored or in use, to be readily available and accessible to construction workers. Kits are to be kept at hazardous materials storage locations, in site compounds and on specific construction vehicles. Where a spill to a watercourse is identified as a risk, spill kits are to be kept in close proximity to potential discharge points in support of preventative controls.	Construction	Project Director Site Foreman
HM3	All hazardous materials spills and leaks to be reported to site managers and actions taken immediately to remedy spills and leaks.	Construction	Project Director Site Foreman
HM4	All refuelling and storage of fuels, chemicals and liquids are to be within an impervious bunded area within the construction compound, located a minimum of five metres away from:	Construction	Project Director Site Foreman

Ref #	Management and Mitigation Measures	Timing	Responsibility
	• rivers, creeks or any areas of concentrated water flow • areas at risk of flooding • slopes above 10%.		
HM5	Any fuel, oils or other liquids stored on site will be stored in an appropriately sized impervious bunded at least 120% larger than the greatest container and in an area least 50 metres away from water bodies.	Construction	Project Director Site Foreman
HM6	Training in the use of spill kits to be given to all personnel involved in the storage, distribution or use of hazardous materials.	Construction	Project Director Site Foreman
Contamination			
CO1	In the event that indications of contamination are encountered (known and unexpected, such as odorous or visually contaminated materials), work in the area will cease until a contamination assessment can be prepared to advise on the need for remediation or other action, as deemed appropriate. Unexpected finds procedure is to be implemented.	Construction	Project Director Site Foreman
CO2	If Asbestos Containing Material (ACM) is encountered during construction activities, work in the area will cease and unexpected finds procedure will be implemented.	Construction	Project Director Site Foreman
CO3	Where required, any materials classified as Hazardous Waste will be treated, or an immobilisation approval obtained in accordance with Part 10 of the *Protection of the Environment Operations (Waste) Regulation 2014* prior to off-site disposal.	Construction	Project Director Site Foreman
CO4	Contaminated soil will be segregated from other materials and based on the contamination present. Contaminated soils will be appropriately contained prior to waste classification and ultimate disposal.	Construction	Project Director Site Foreman
CO5	Any material requiring off-site disposal will be transported by a suitably licensed contractor and disposed of at an appropriately licensed facility.	Construction	Project Director Site Foreman
CO6	During excavation, site workers will be provided with appropriate training as part of the project induction regarding the identification and response actions for the management of potential contamination, such as presence of waste and/or other imported materials, odours, soil colouring etc.	Construction	Project Director Site Foreman
CO7	Identified contaminated materials will be classified prior to offsite disposal	Construction	Project Director Site Foreman
Traffic			
T1	Vehicular property access is to be maintained throughout construction. Where property access will have to be temporarily closed during construction: • property owners will be notified at least seven calendar days prior to the access closure • alternative access will be provided if available • access closure will be minimised, and access will be returned to the property owners as soon as possible	Construction	Project Director Site Foreman
T2	There will be advance notification of any construction works that affect pedestrians and cyclists, including signage outlining diversion routes.	Construction	Community and Stakeholder Manager
T3	Vehicle delivery times will be scheduled where feasible to avoid peak hour traffic.	Construction	Project Director

Ref #	Management and Mitigation Measures	Timing	Responsibility
			Site Foreman
T4	Site workforce to consider vehicle sharing to minimise parking impacts on local roads.	Construction	All personnel
T5	Workers and subcontractors to be advised of approved haulage routes during ancillary facility access. Marshalling of construction vehicles is not permitted near sensitive land users. **Trucks will be directed to specific layover areas (marshalling yard) until they are able to continue their journey.**	Construction	All personnel
T6	The following rules will be communicated to truck drivers using local roads: • Compression brakes and horns will only be used in emergencies • Trucks must give way to pedestrians and other vehicles in the roadway • Trucks must watch for vehicles exiting from driveways • Trucks must not transfer debris or dirt onto public roads • Trucks must be turned off when not in use.	Construction	All personnel
T7	Heavy haulage trucks will be equipped with telematics (customised GPS tracking system) so that their movements are captured in real time. This enables monitoring of driver behaviour such as speeding, idling, queueing or not using correct routes	Construction	Project Director Site Foreman
T8	In accordance with NSW CoA A94, all heavy vehicles used for construction haulage will be clearly marked on the sides and rear with the CSSI name, and the name of the stage, to enable immediate identification by a person viewing the heavy vehicle. Signage is publicly available on the DPE website: https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SSI-9364-PA-4%2120210608T054816.141%20GMT.	Construction	Project Director Site Foreman
Noise and Vibration			
N1	Management measures adopted during construction will include but will not limited to the following: • Planning and conducting works in a manner to minimise the reversing of vehicles with audible reversing alarms • Use of two way radios at the minimum effective volume • Avoiding use of radios during work outside normal hours • Avoiding shouting and slamming doors • Not using vehicle warning devices, such as horns, as signalling devices • Undertaking regular maintenance of plant and equipment, including silencers • where practical, operating machines at low speed or power and switching off when not being used rather than left idling for prolonged periods • minimising reversing • Avoiding metal-to-metal contact • Avoiding dropping material from a height into unlined metal trays	Construction	Project Director Site Foreman
N2	Ancillary site layout to be arranged so that primary noise sources including noisy plant items (generators, pumps, fixed plant) are located away from nearby noise sensitive receivers, with solid structures (sheds and containers) placed between sensitive receivers and noise sources (and as close to the noise sources as is practical) where practicable.	Pre-Construction and Construction	ESR Project Director Site Foreman

Ref #	Management and Mitigation Measures	Timing	Responsibility
N3	Non-tonal reversing alarms to be used on vehicles and mobile construction equipment, subject to WHS compliance requirements and risk assessments.	Construction	Contractor
N5	During work hours, a community liaison phone number and site contact will be provided to enable complaints to be received and responded to.	Construction	Project Director Site Foreman
N6	If deemed necessary, attended compliance noise and vibration monitoring will be undertaken upon receipt of a complaint. Monitoring will be reported as soon as possible. In the case that exceedances are detected, the situation will be reviewed in order to identify means to minimise the impacts to residences.	Construction	Project Director Site Foreman
N7	The environmental induction program will include specific noise and vibration issues awareness training.	Construction	ESR
N8	Undertake noise monitoring and review monitoring results and revise mitigation measures as appropriate	Construction	ESR
Air Quality			
AQ1	Management measures adopted during construction will include but will not limited to the following: • vehicles transporting soils, spoil, waste or other materials that have a potential to produce odours or dust are to be covered during transportation • dust will be suppressed on stockpiles and unsealed or exposed areas using methods such as water sprays, water trucks, temporary stabilisation methods, soil binders or other appropriate practices • disturbed areas will be minimised in extent and rehabilitated progressively • speed limits will be imposed on unsealed surfaces • stockpiles will be located as far away from residences and other sensitive receivers as practicable • works (including the spraying of paint and other materials) will not be carried out during strong winds or in weather conditions where high levels of dust or air borne particulates are likely • plant, vehicles and equipment will be maintained in good condition and in accordance with manufacturer's specifications • plant and machinery will be turned off when not in use • no burning of any timbers or other combustible materials will occur on site • visual monitoring of air quality will be undertaken to verify the effectiveness of controls and enable early intervention • work activities will be reprogrammed if the management measures are not adequately restricting dust generation.	Construction	Project Director Site Foreman
Visual impacts			
VI1	Graffiti to be removed or covered (as agreed with the Principal): • within 24 hours for graffiti of an offensive nature • within one week for any other graffiti	Construction	ESR Project Director Site Foreman
VI2	Temporary hoardings, barriers, traffic management and signage to be removed when no longer required.	Construction	Project Director Site Foreman
VI3	Areas impacted by construction to be restored with appropriate landscape treatments.	Construction	Project Director Site Foreman

Ref #	Management and Mitigation Measures	Timing	Responsibility
Socio-economic			
SE1	Residents will be informed prior to any interruptions to utility services that may be experienced as a result of utilities relocation.	Construction	Community and Stakeholder Manager
SE2	Road users, pedestrians and cyclists will be informed of changed conditions, including likely disruptions to access during construction.	Construction	Community and Stakeholder Manager
Waste and Resource Management			
W1	The following resource management hierarchy principles will be followed: • avoid unnecessary resource consumption as a priority • avoidance will be followed by resource recovery (including reuse of materials, reprocessing, and recycling and energy recovery) • disposal will be undertaken as a last resort (in accordance with the *Waste Avoidance and Resource Recovery Act, 2001*).	Pre-Construction and Construction	Contractor
W2	Procurement will endeavour to use materials and products with a recycled content where that material or product is cost and performance effective.	Pre-Construction	Sustainability Manager Project Director
W3	A dedicated concrete washout facility that is impervious will be provided during construction so that runoff from the washing of concrete machinery, equipment and concrete trucks can be collected and disposed of at an appropriate waste facility.	Construction	Project Director Site Foreman
W4	All wastes will be managed in accordance with the *Protection of the Environment Operations Act 1997* (NSW).	Construction	Project Director Site Foreman
W5	Types of waste collected, amounts, date/time and details of disposal are to be recorded in a waste register.	Construction	Project Director Site Foreman
W6	Works sites will be maintained, kept free of rubbish and cleaned up at the end of each working day.	Construction	Project Director Site Foreman
W7	Suitable waste disposal locations will be identified and used to dispose of litter and other wastes on-site. Suitable containers will be provided for waste collection.	Construction	Project Director Site Foreman
Heritage			
H1	If any unexpected heritage items (including human remains) are encountered, works potentially affecting the find will cease and the TfNSW Management Procedure – Unexpected Heritage Items (November 2015)	Construction	ESR Project Director Site Foreman
Flood			
F1	Flood emergency management measures will be developed for major ancillary facilities.	Pre-Construction	Project Director
F2	Measures to manage the diversion of floodwater either through or around the construction areas will be planned, implemented and maintained.	Pre-Construction Construction	Project Director Site Foreman

Ref #	Management and Mitigation Measures	Timing	Responsibility
F3	The 10% AEP flood extent will be marked on the Site Environment Plan and EWMS. Where feasible, spoil management and stockpile areas will be located outside the 10% AEP flood extent.	Pre-Construction Construction	Project Director Site Foreman
F3	Where possible ensure that excavated materials are not placed within 20m of drainage lines.	Construction	Project Director Site Foreman
F4	Where practicable, liquid chemical and fuel storage areas will not be located within 50 metres of natural surface drainage areas, storm drainage systems, poorly drained or flood prone areas or any area with a slope steeper than 10%.	Pre-Construction Construction	Project Director Site Foreman
F5	Key staff including the Project Manager and Site Foreman shall register with a weather forecast service provider to receive timely warnings of flood risk.	Pre-Construction Construction	Project Director Site Foreman
Cumulative Impacts			
CI1	Prior to commencing site establishment works, communication will be established with other projects in close proximity to the various support sites to ensure activities are scheduled and managed to minimise disruption to the local area	Construction	ESR Community and Stakeholder Manager

Appendix B – Indicative Site Layouts

Nearest noise sensitive receivers to each of these ancillary facilities are shown on Figure 1-1.

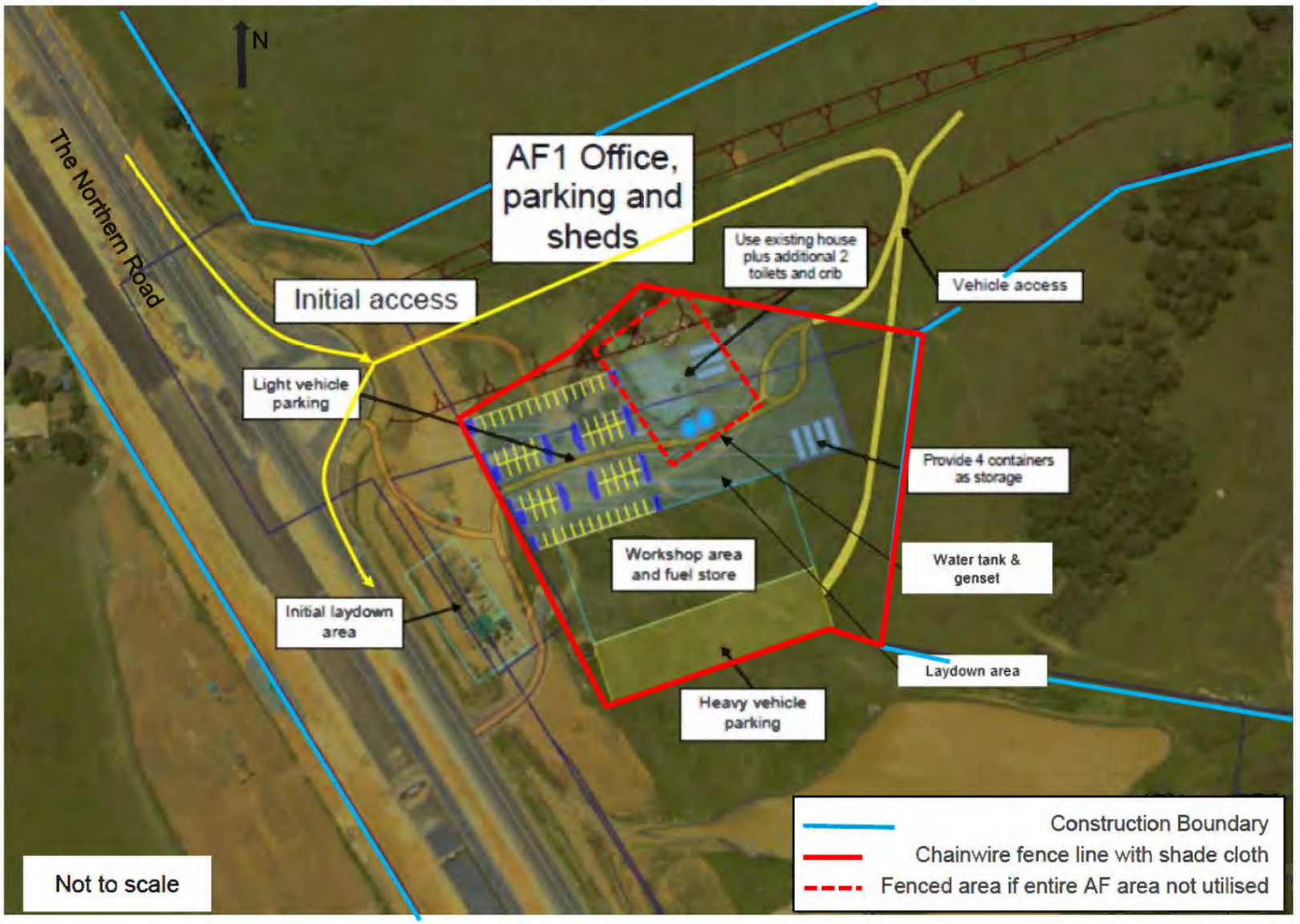


Figure B-8-1 AF1 indicative layout

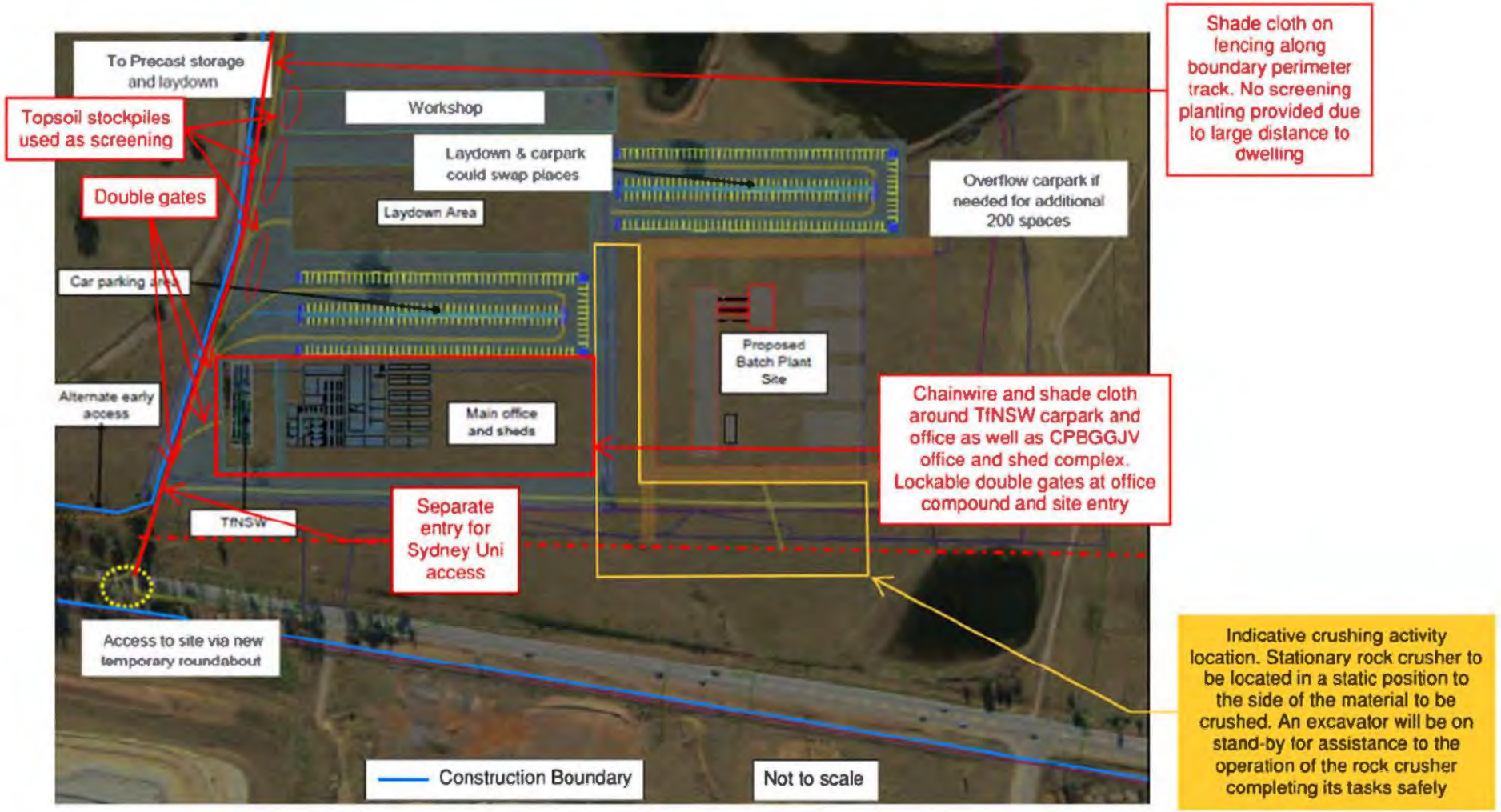


Figure B-8-2 AF2 indicative layout

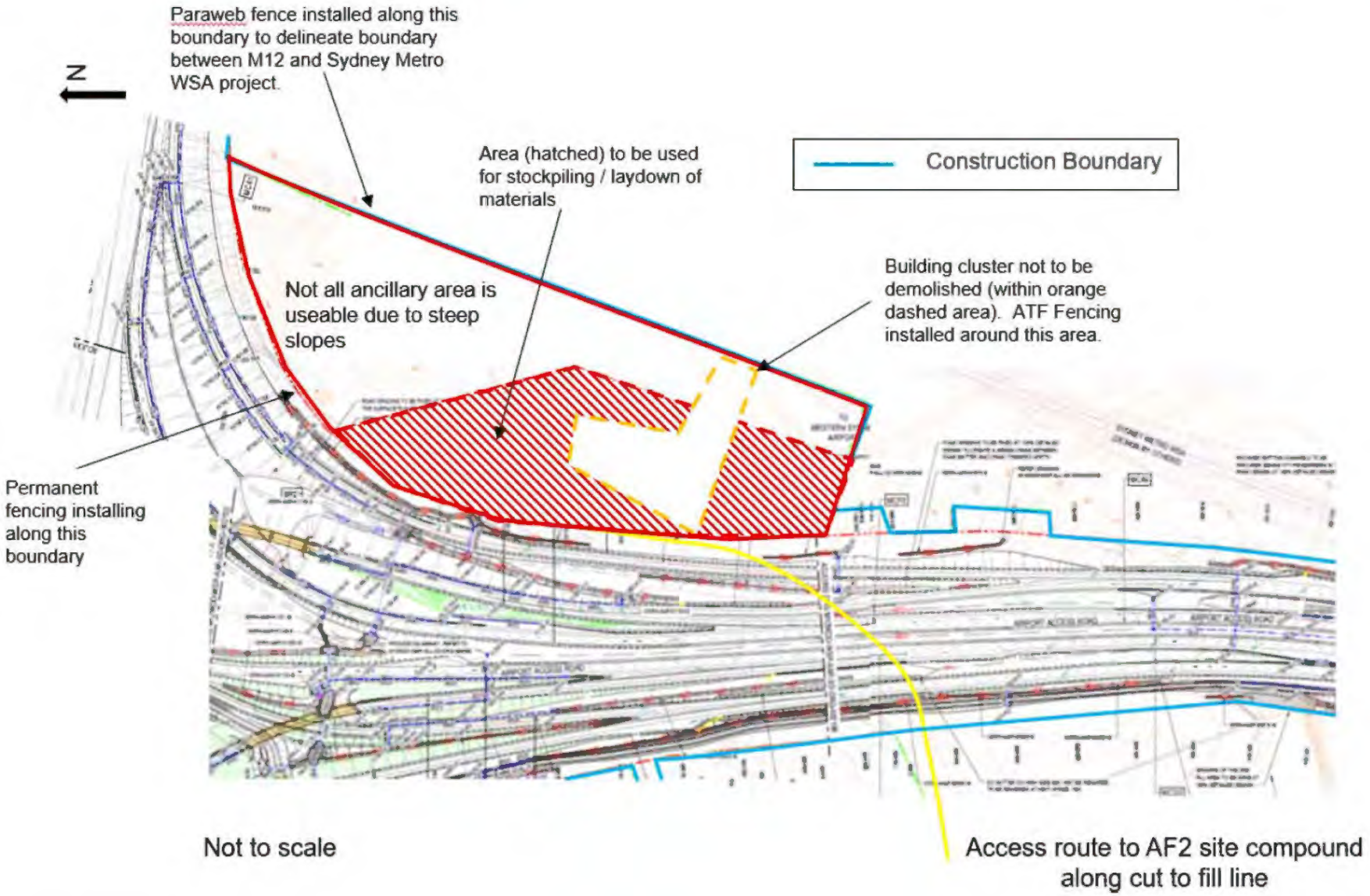


Figure B-8-3 AF3 indicative layout

Figure B-8-4 AF10 indicative layout

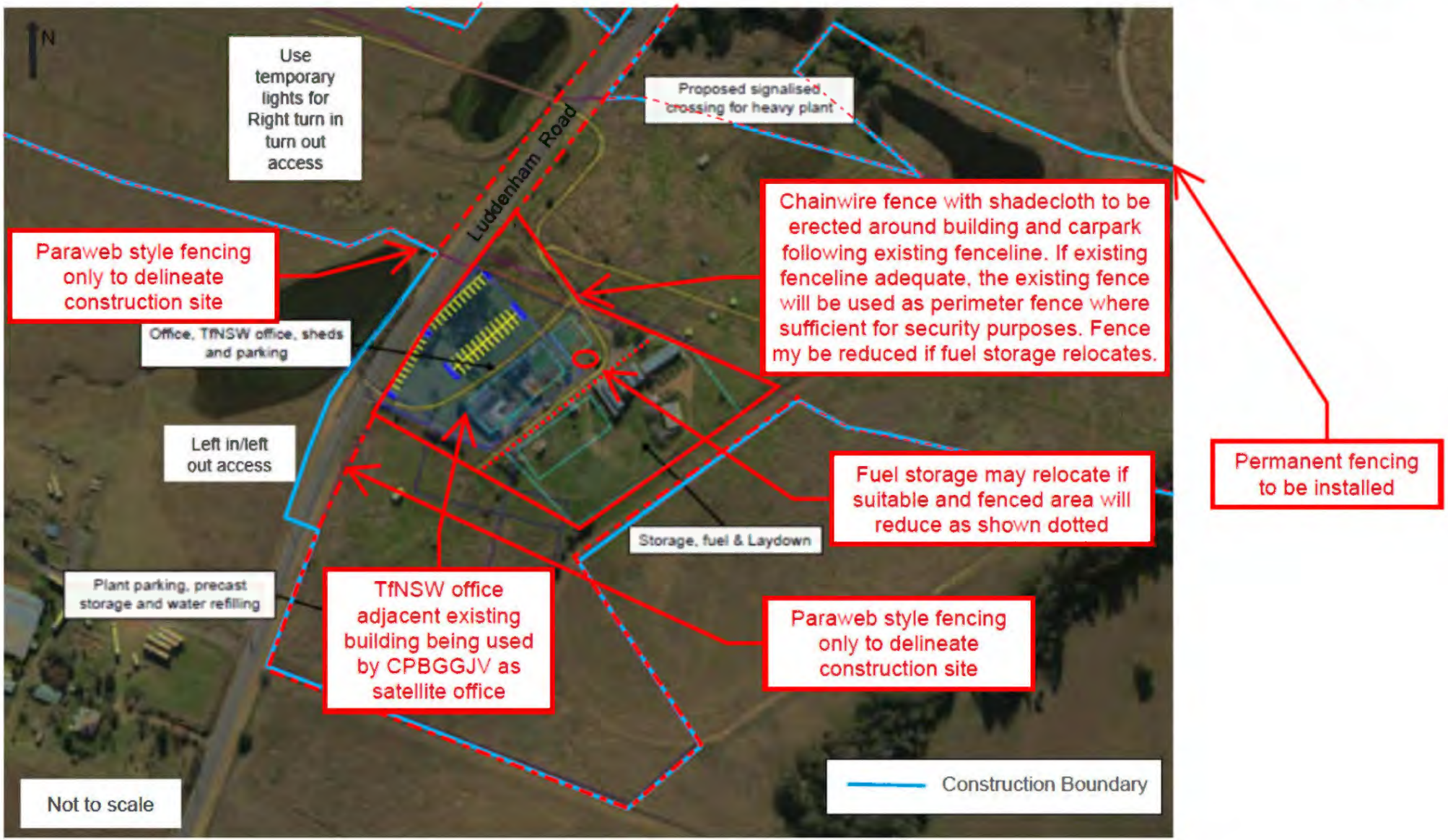


Figure B-8-5 AF11 indicative layout

Figure B 8-6 AF17 Indicative site layout

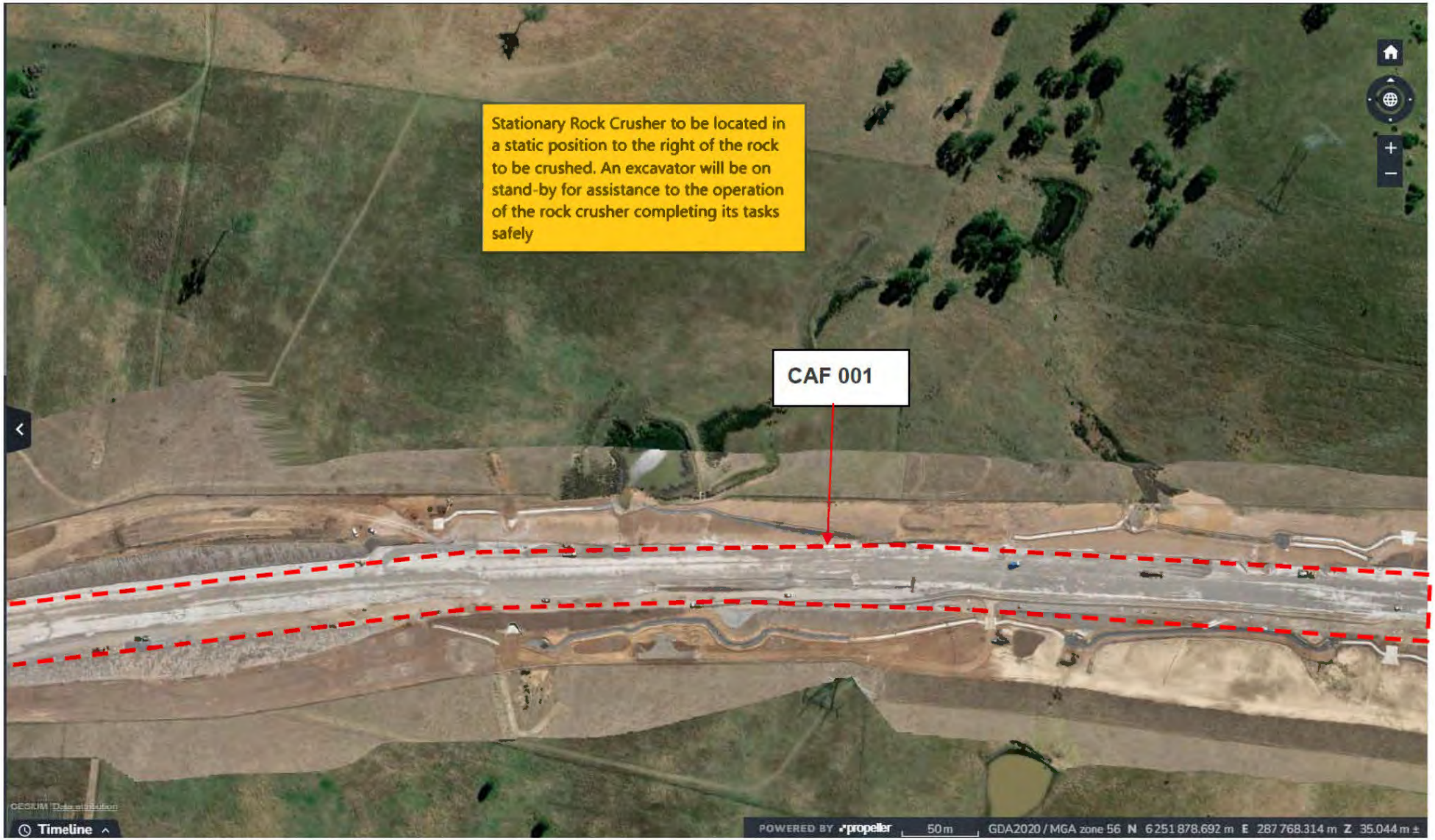


Figure B 8-7 CAF 001 Indicative site layout

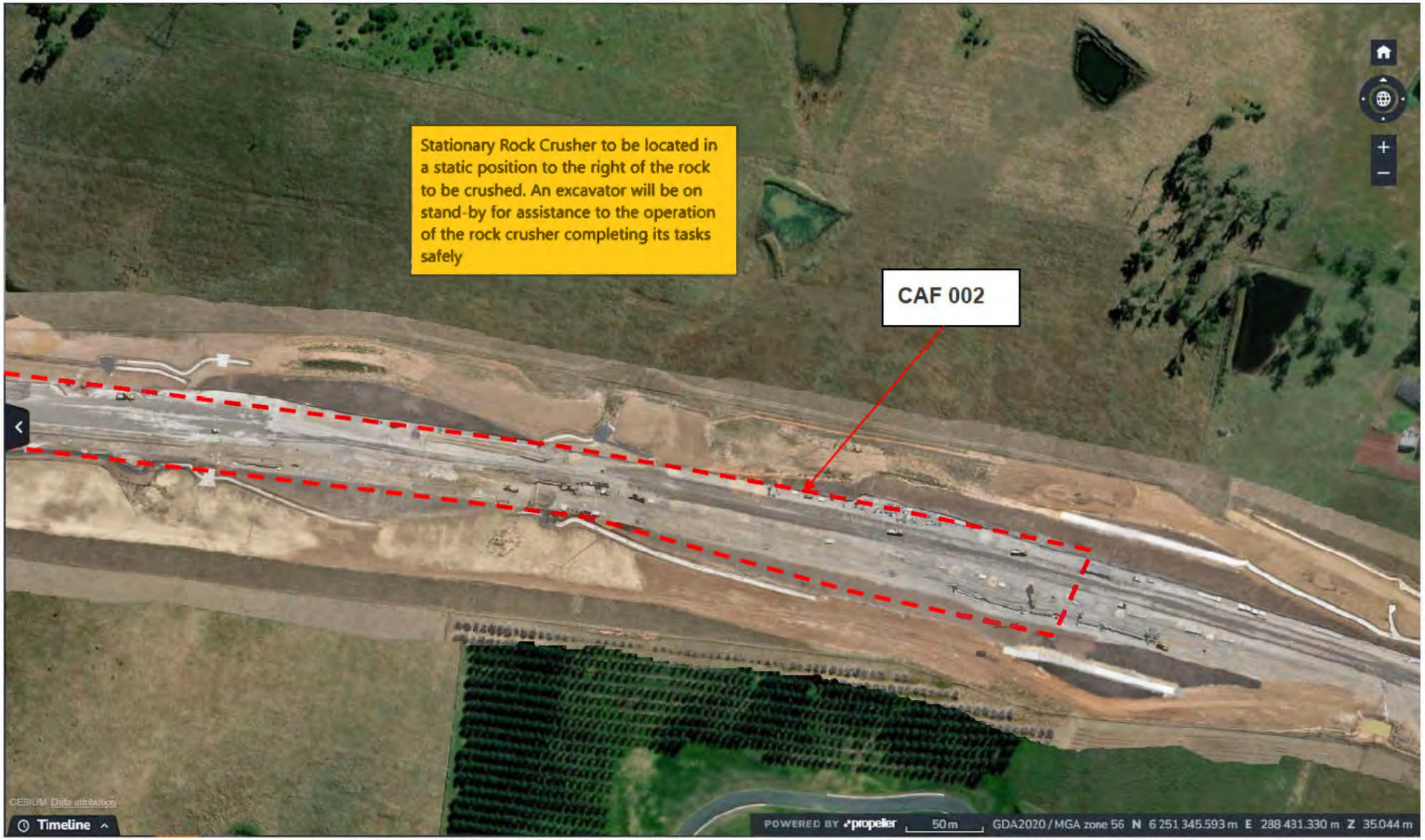


Figure B 8-8 CAF 002 Indicative site layout

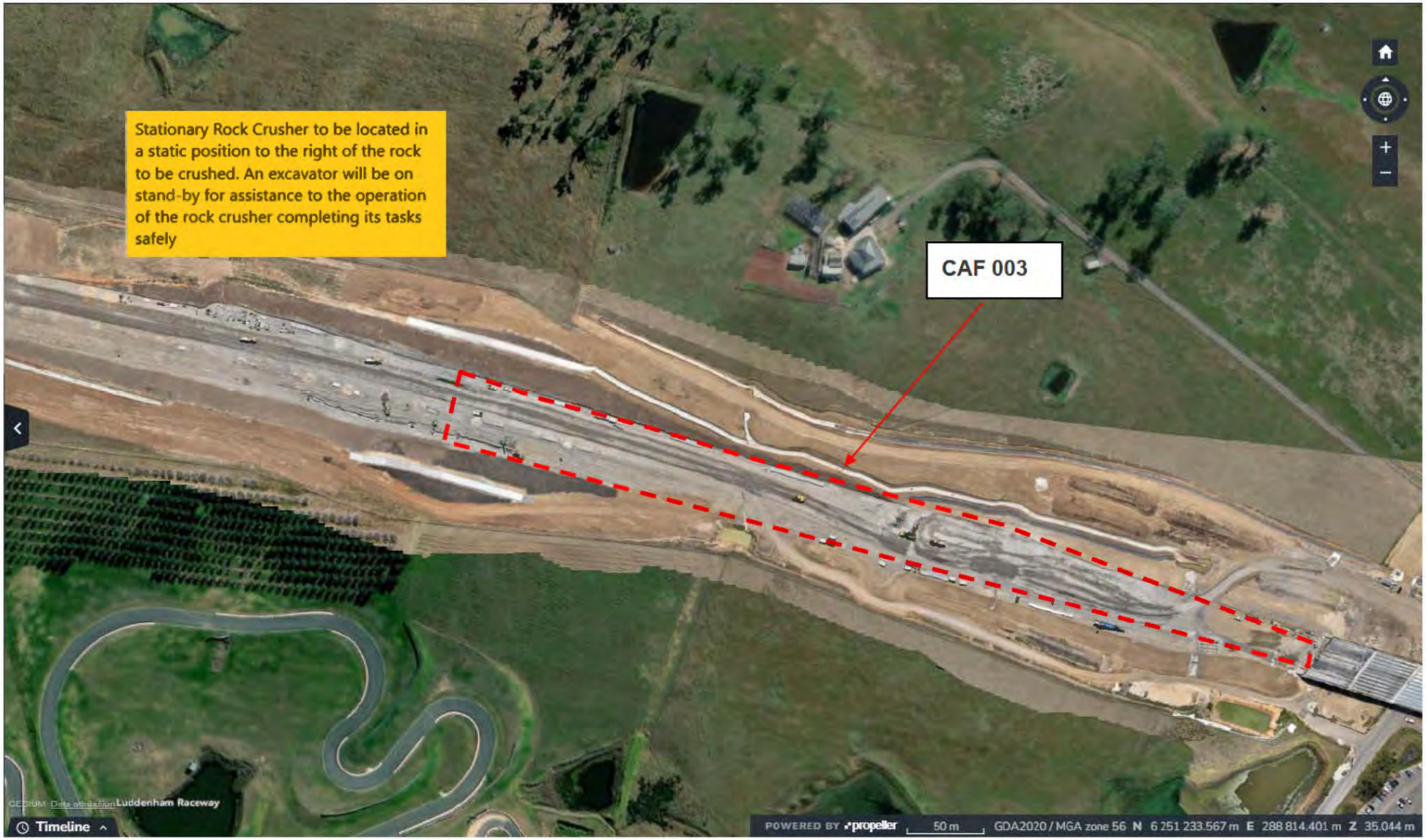


Figure B 8-9 CAF 003 Indicative site layout

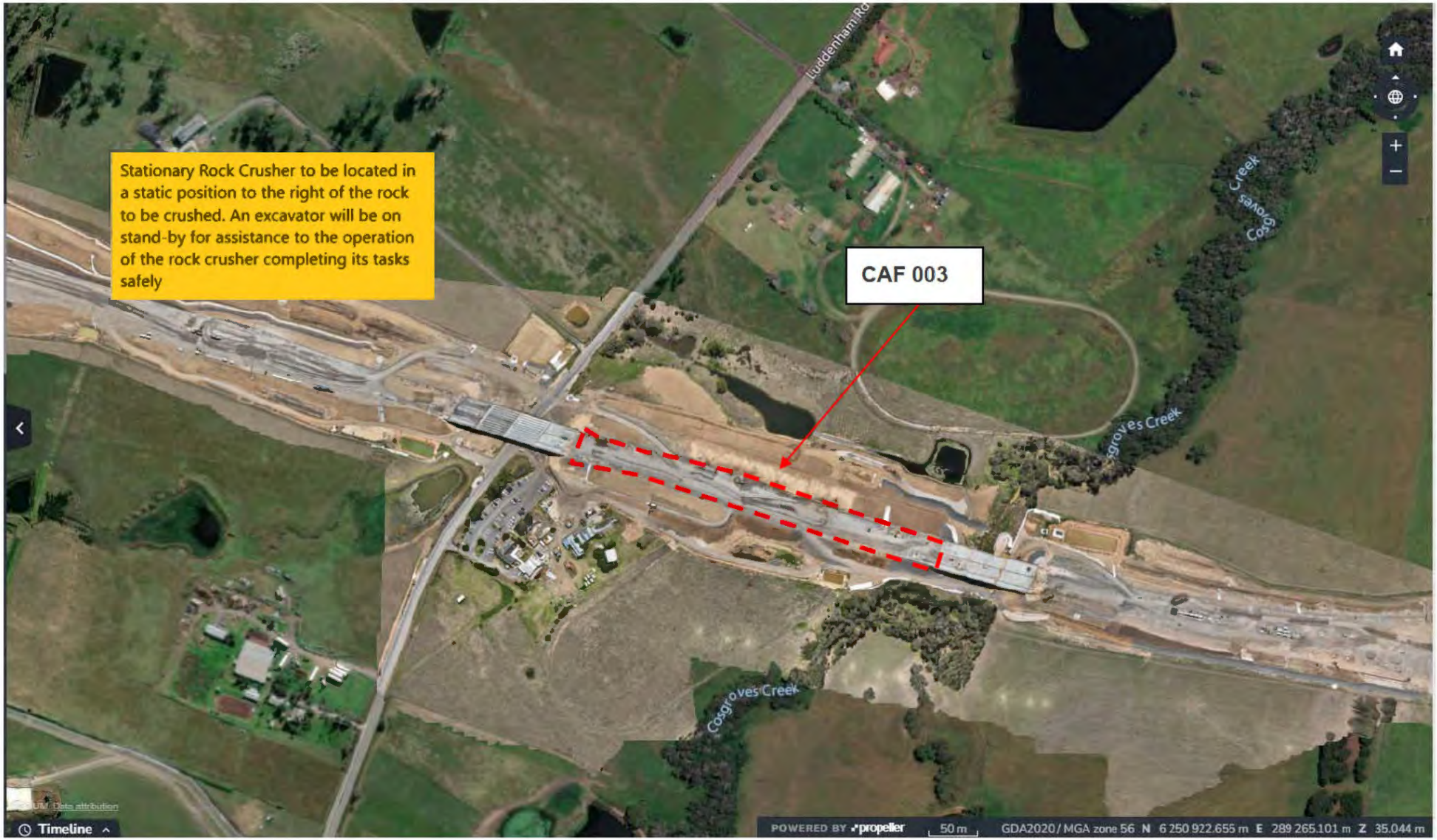


Figure B 8-10 CAF 003 Indicative site layout

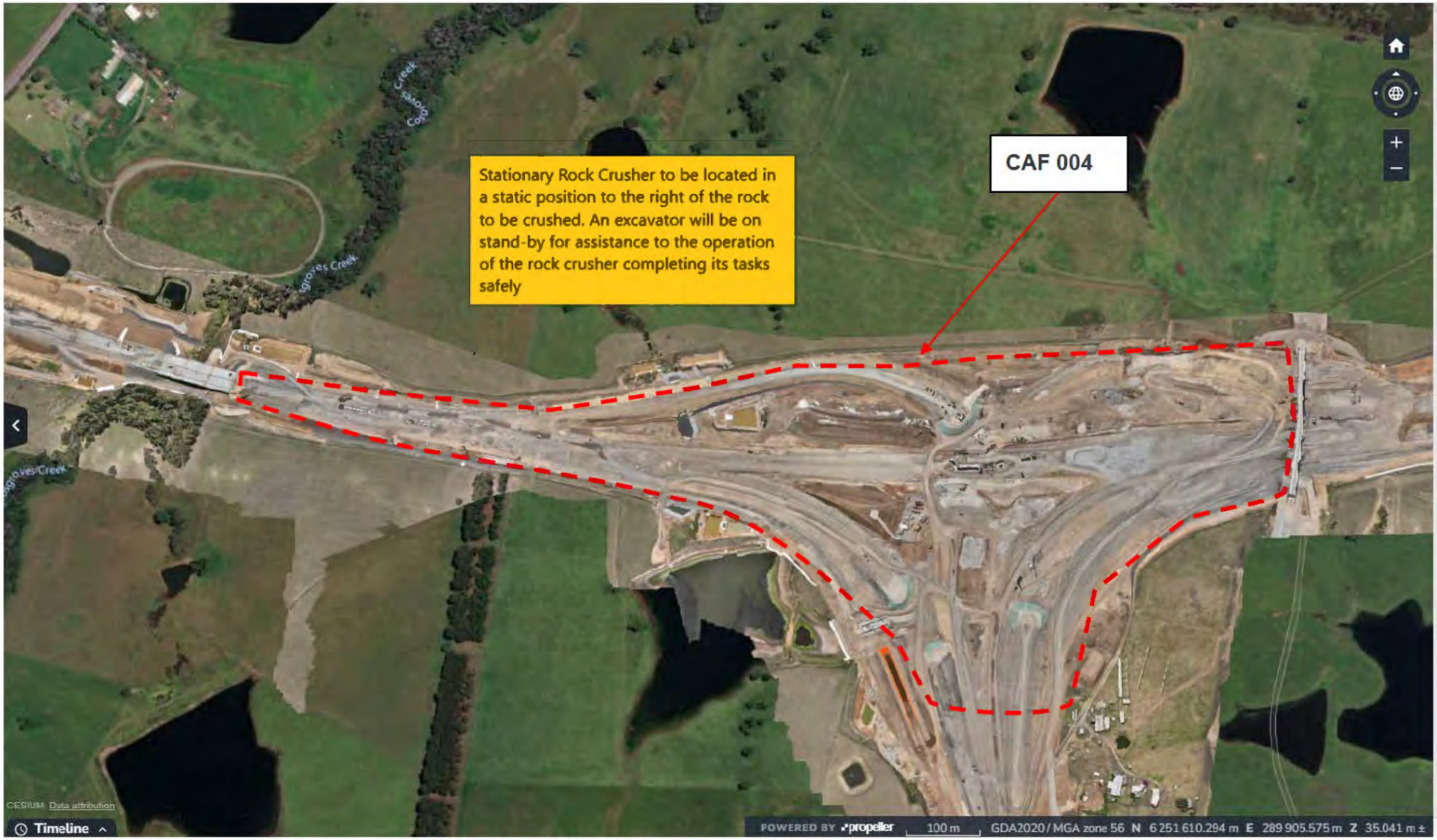


Figure B 8-11 CAF 004 Indicative site layout

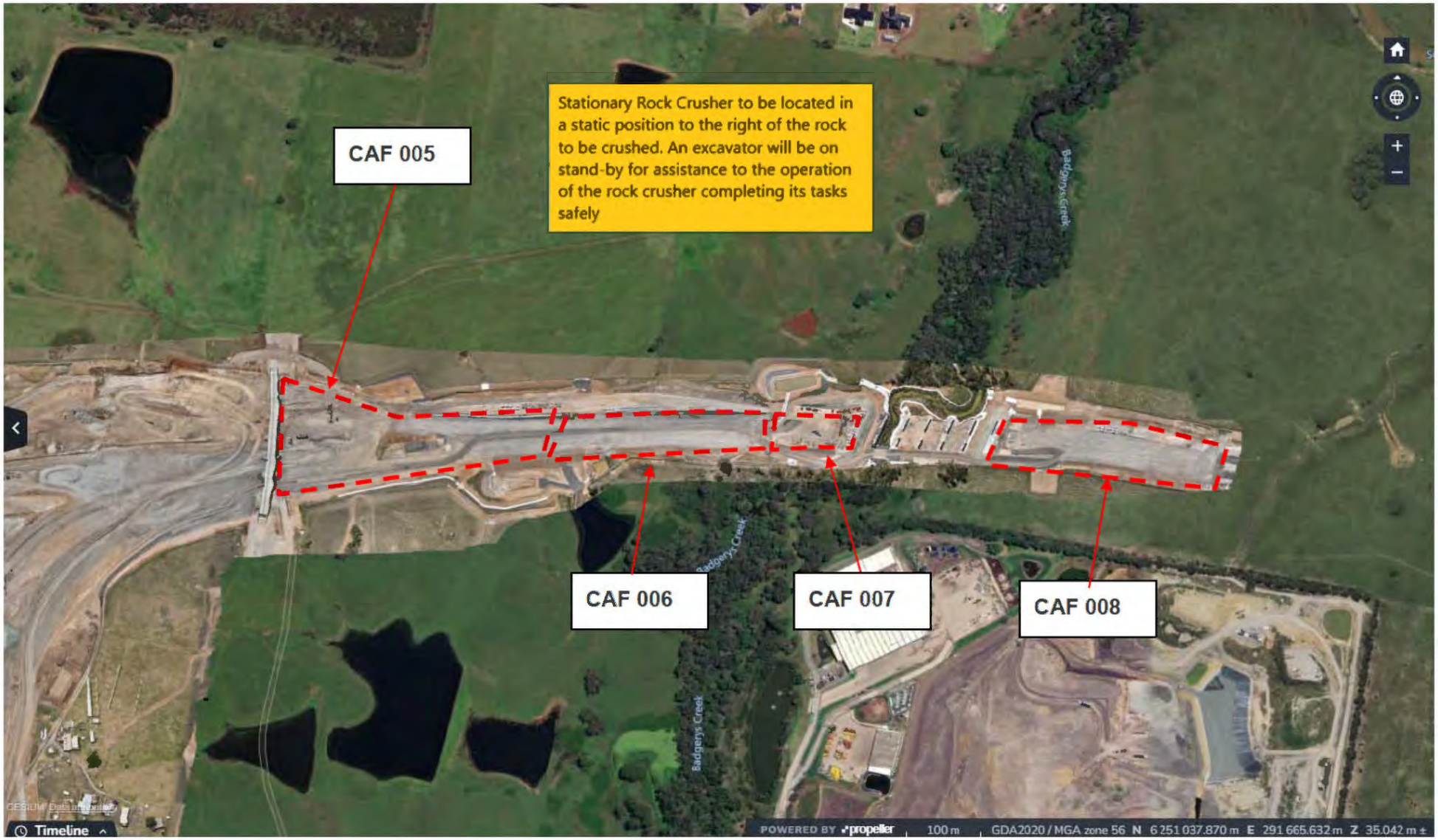


Figure B 8-10 CAF 005 -CAF 008 Indicative site layout

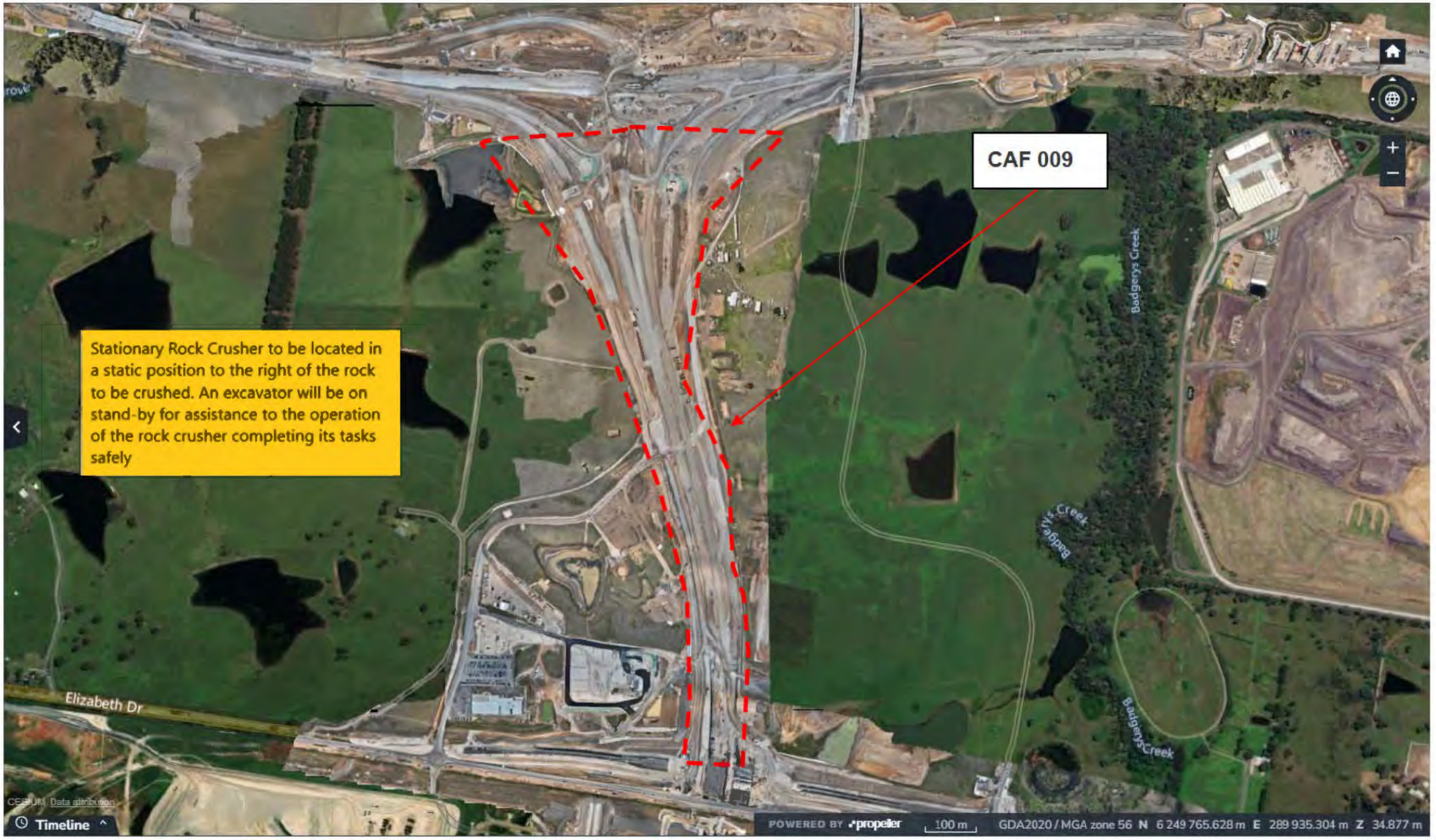
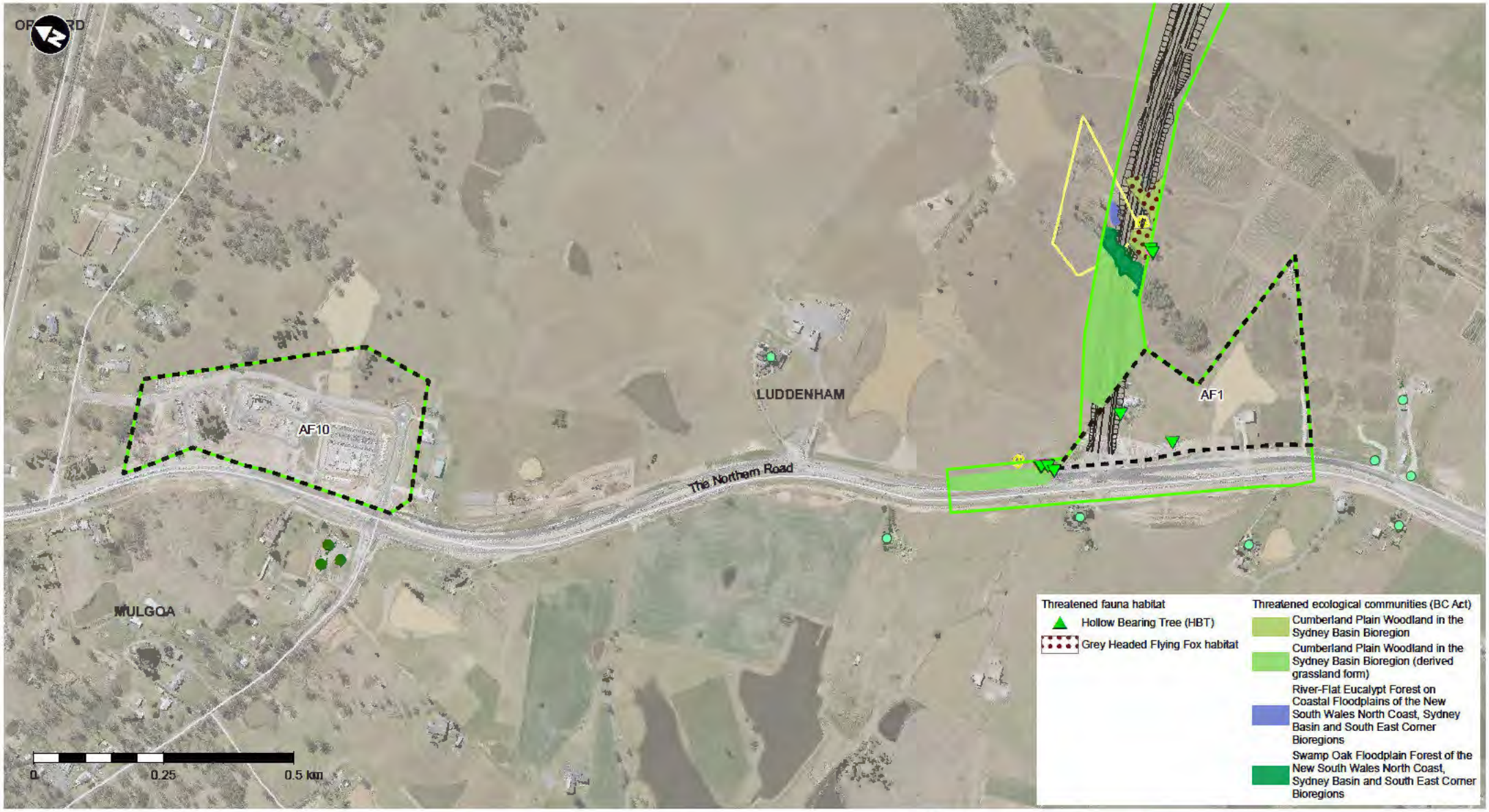


Figure B 8-11 CAF 009 Indicative site layout

Appendix C – Sensitive Area Plans



Project construction boundary (CA for West and Central, Jul 2021; ARSR for East, Dec 2020)

M12 West

The refined project ancillary facilities (CA for West and Central, Jul 2021; ARSR for East, Dec 2020)

M12 Motorway (The Project)

Receivers

Residential

Commercial

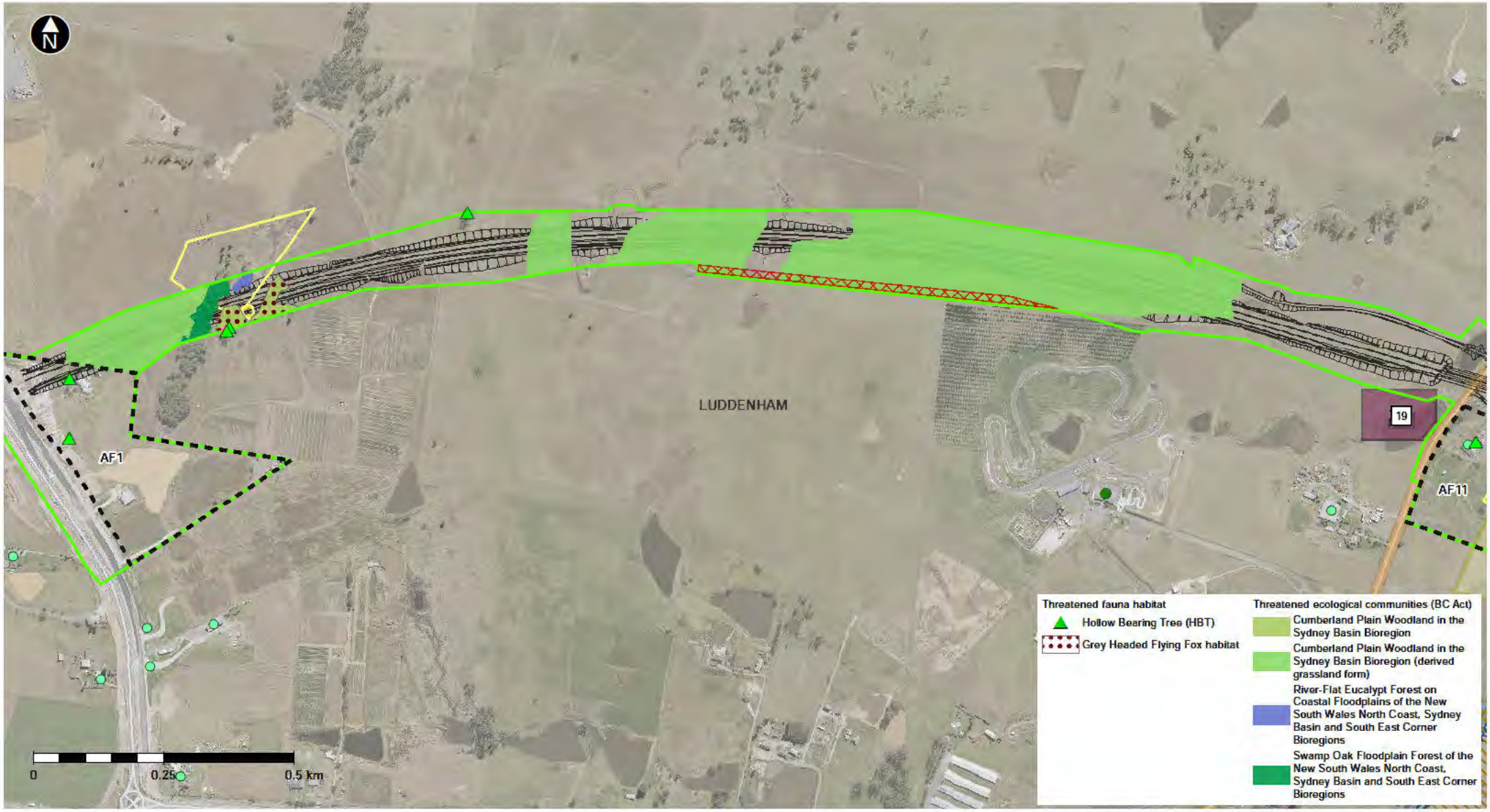
Aborigional sites impacted from the main construction works

Aboriginal heritage sensitve area

Aboriginal heritage sensitive area refers to sites where Aboriginal objects are likely to occur in subsurface deposits. An Aboriginal site complex refers to a grouping of sites that occur in close proximity and appear to be associated with specific landform features

Imagery: Aerometrex August 2020

Appendix A6 Sensitive Area Plan for the Project



Project construction boundary (CA for West and Central, Jul 2021; ARSR for East, Dec 2020)

- M12 West
- The refined project ancillary facilities (CA for West and Central, Jul 2021; ARSR for East, Dec 2020)
- The amended project exclusion zones
- M12 Motorway (The Project)

Receivers

- Residential
- Commercial

- Potential areas of existing fill
- Areas of environmental interest

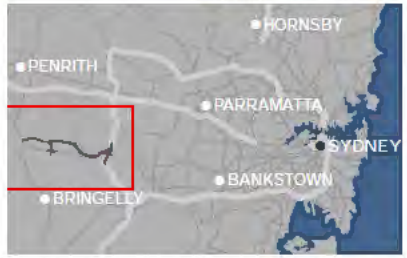
- Aborigional sites impacted from the main construction works
- Aboriginal heritage sensitve area
- Aboriginal heritage site complex (potential area of sensitivity)

Assessed heritage significance

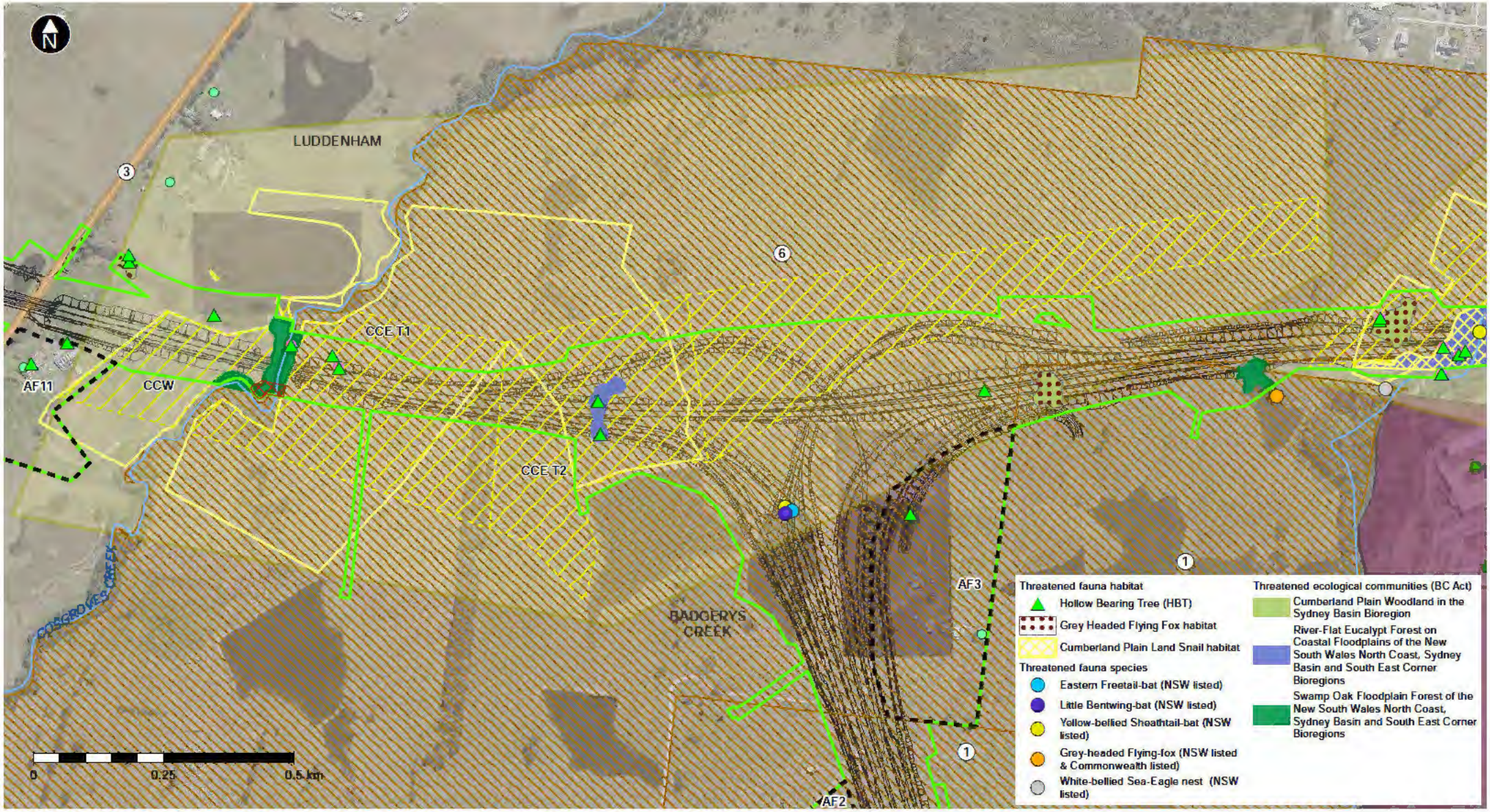
- Local
- State

Aboriginal heritage sensitive area refers to sites where Aboriginal objects are likely to occur in subsurface deposits. An Aboriginal site complex refers to a grouping of sites that occur in close proximity and appear to be associated with specific landform features

Imagery: Aerometrex August 2020



Appendix A6 Sensitive Area Plan for the Project



Project construction boundary (CA for West and Central, Jul 2021; ARSR for East, Dec 2020)

- M12 West
- The refined project ancillary facilities (CA for West and Central, Jul 2021; ARSR for East, Dec 2020)
- The amended project exclusion zones
- M12 Motorway (The Project)

Receivers

- Residential
- Commercial

- Potential areas of existing fill
- Areas of environmental interest

- Aborigional sites impacted from the main construction works
- Aboriginal heritage sensitive area
- Aboriginal heritage site complex (potential area of sensitivity)

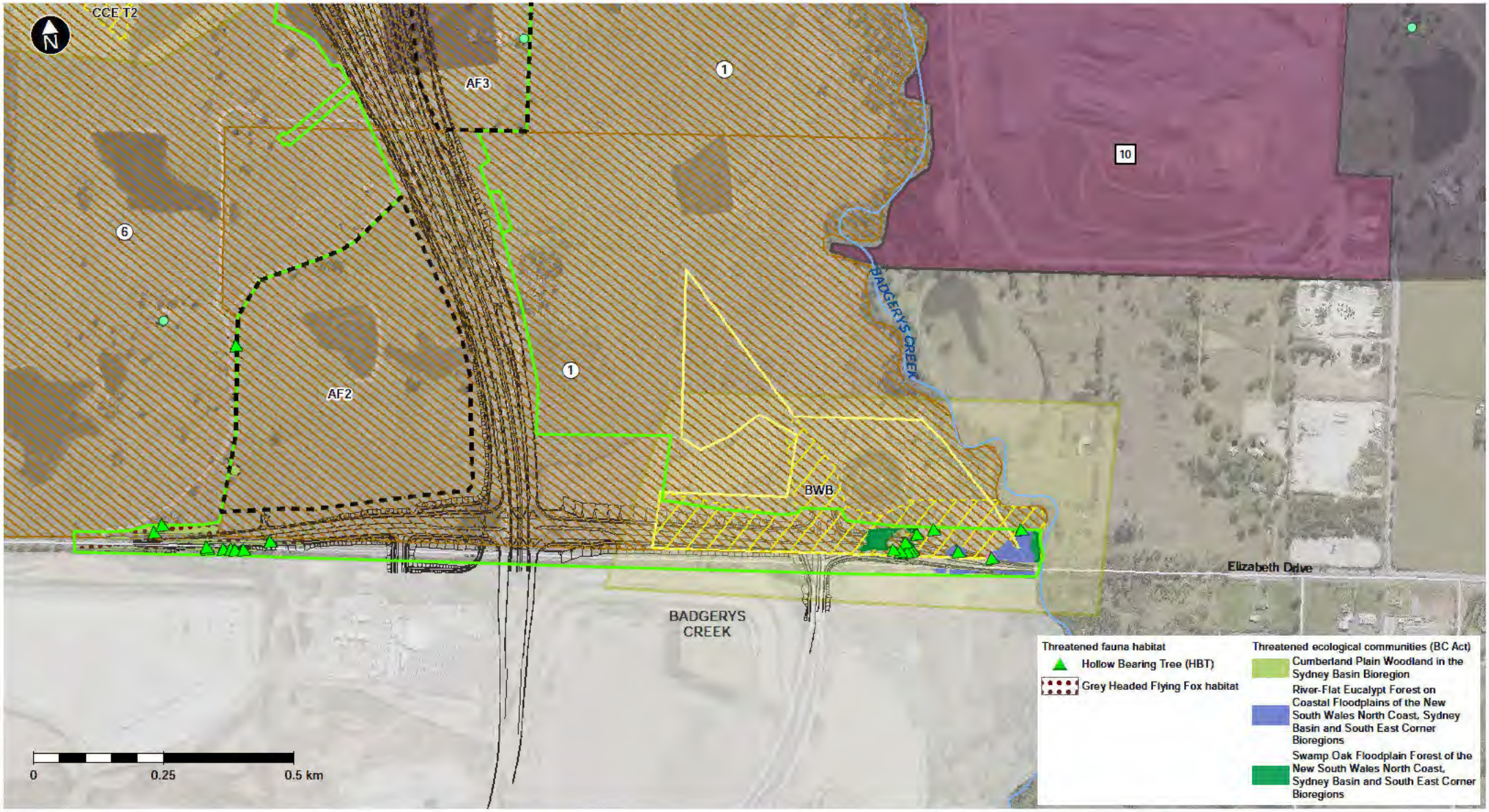
Assessed heritage significance

- Local
- State

Aboriginal heritage sensitive area refers to sites where Aboriginal objects are likely to occur in subsurface deposits. An Aboriginal site complex refers to a grouping of sites that occur in close proximity and appear to be associated with specific landform features

Imagery: Aerometrex August 2020

Appendix A6 Sensitive Area Plan for the Project



Project construction boundary (CA for West and Central, Jul 2021; ARSR for East, Dec 2020)

- M12 West
- The refined project ancillary facilities (CA for West and Central, Jul 2021; ARSR for East, Dec 2020)
- M12 Motorway (The Project)
- Western Sydney International Airport

Receivers

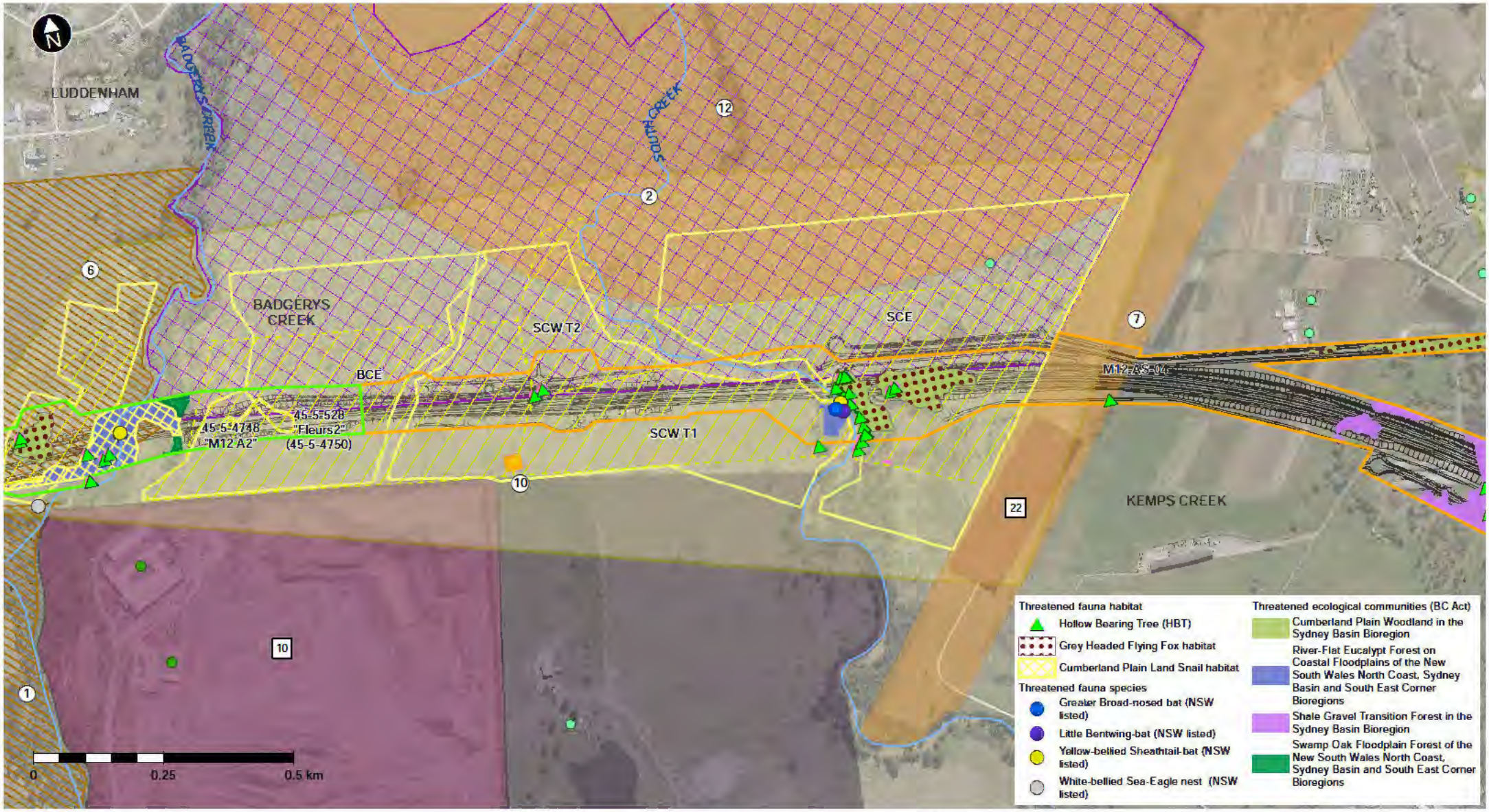
- Residential
- Potential areas of existing fill
- Areas of environmental interest

- Aborigional sites impacted from the main construction works
- Aboriginal heritage sensitive area
- Aboriginal heritage site complex (potential area of sensitivity)
- State

Aboriginal heritage sensitive area refers to sites where Aboriginal objects are likely to occur in subsurface deposits. An Aboriginal site complex refers to a grouping of sites that occur in close proximity and appear to be associated with specific landform features

Imagery: Aerometrex August 2020

Appendix A6 Sensitive Area Plan for the Project



Project construction boundary (CA for West and Central, Jul 2021; ARSR for East, Dec 2020)
- M12 West
- M12 Central
- M12 Motorway (The Project)

Receivers
- Residential
- Commercial

- Potential areas of existing fill
- Areas of environmentel interest

- Aborigional sites impacted from the main construction works
- Aboriginal heritage sensitve area
- Aboriginal heritage site complex (potential area of sensitivity)

Assessed heritage significance
- Local
- State
- State and potentially national

Aboriginal heritage sensitive area refers to sites where Aboriginal objects are likely to occur in subsurface deposits. An Aboriginal site complex refers to a grouping of sites that occur in close proximity and appear to be associated with specific landform features

Imagery: Aerometrex August 2020

Appendix A6 Sensitive Area Plan for the Project

Appendix D – Unexpected Contaminated Lands Finds Procedure

Appendix A
Unexpected Contaminated Land Finds Procedure

M12 Motorway West

Project number:	N00160
Document number:	M12WCO-CPBGG-ALL-EVCT-PLN-000001_App A
Revision date:	18/04/2023
Revision:	01

Details of Revision Amendments

Document Control

The Project Director is responsible for ensuring that this plan is reviewed and approved. The Project Director is responsible for updating this plan to reflect changes to construction, legal and other requirements, as required.

Amendments

Any revisions or amendments must be approved by the Project Director and/or client before being distributed / implemented.

Revision Details

Rev	Date	Reviewed By	Details
A	18/02/2022	S. Keomongkhoun	First Draft
B	20/05/2022	G. Bolton	Second draft following TfNSW/Arcadis review and comment
C	29/06/2022	A. Zvirzdinas	Third draft following TfNSW/Arcadis review and comment on Rev B
D	14/07/2022	A. Zvirzdinas	Fourth draft following TfNSW/Arcadis/ER review and comment on Rev B, New document number
00	28/07/2020	A. Zvirzdinas	First Controlled Issue
E	31/01/2023	K. Purkiss	6-Monthly review and additional design changes updates
01	18/04/2023	J. Ibrahim	Second Controlled Issue

Document Review

Position	Name	Signature	Date
Project Director	Nick Fryday		28/07/2022

Distribution of controlled copies

Copy no.	Issued to	Version

Table of Contents

Acronyms and Abbreviations

Abbreviation	Expanded Text
CCLMP	Construction Contaminated Land Management Sub-plan
CPBGG JV	CPB Contractors and Georgiou Group Joint Venture
CoA	Conditions of Approval
EIS	Environmental Impact Statement
EMS	Environmental management system
Environmental aspect	Defined by AS/NZS ISO 14001:2015 as an element of an organisation's activities, products or services that can interact with the environment.
Environmental Assessment Documentation	Collective reference to the M12 EIS, Submissions Report and Amendment Report and supplementary reports as detailed in NSW CoA A1.
Environmental impact	Defined by AS/NZS ISO 14001:2015 as any change to the environment, whether adverse or beneficial, wholly or partially resulting from an organisation's environmental aspects.
EPA	NSW Environment Protection Authority
EP&A Act	*Environmental Planning and Assessment Act 1979*
ER	Environmental Representative
ESM	Environment and Sustainability Manager (TfNSW)
ESR	Environmental Site Representatives (CPBGG JV)
EWMS	Environmental Work Method Statements
km	Kilometres
OCEMP	Overarching Construction Environmental Management Plan
PPE	Personal protective equipment
Procedure, this	Unexpected Discovery of Contaminated Land Procedure
RAPs	Remedial Action Plans
SWMS	Safe Work Method Statements
TfNSW	Transport for New South Wales
WSIA	Western Sydney International Airport

1 Introduction

1.1 Purpose

This Unexpected Contaminated Land Finds Procedure (this Procedure) details the actions to be taken when potential contaminated soil and/or material is encountered during excavation/construction activities. In the event that hazardous materials are discovered, this Procedure should be implemented.

This Procedure has been prepared in accordance with NSW Conditions of Approval (CoA) E89 and E90. This Procedure has been developed in accordance with best practice NSW Environment Protection Authority (EPA) contamination management guidelines and TfNSW specifications.

1.2 Scope of the program

This Procedure is applicable to all activities conducted by site personnel (including sub-contractors) on the Project that have the potential to uncover/encounter contaminated soil/material. This procedure is not applicable to the identification of soils suspected to be contaminated with plant pathogens. This procedure will be implemented throughout the duration of construction of the M12 Motorway West project.

1.3 Induction and training

Where required, all site personnel (including sub-contractors) are to be inducted on the identification of potential contaminated soil/material along with the requirements of this Procedure during inductions and/or regular toolbox talks. Site personnel should be informed of the potential sources of contamination within the Project and indications of contamination in soil and groundwater, such as:

- Odour
- Discolouration/staining of soils
- Groundwater or surface water sheen
- Evidence of landfilling/discarded drums.

1.4 Roles and responsibilities

The CPBGG JV Environmental Site Representative (ESR) will ensure that this Procedure is effectively implemented, and all site personnel are aware of the requirements of this Procedure.

The CPBGG JV Superintendent will be responsible for ensuring that in the event that contaminated land is discovered, site personnel are informed immediately and all work in the vicinity of the find ceases. The CPBGG JV Superintendent will be advised of any required actions for the control of discovered contamination on site, such as implementation of exclusion zones and signage, and will be responsible for ensuring the actions are undertaken.

The TfNSW Environment and Sustainability Manager (ESM) (or delegate) will liaise with the relevant authorities (such as EPA and a Contaminated Land Specialist) where required, and will approve the recommencement of works following any remediation undertaken.

1.5 Review

This Procedure will be updated by the CPBGG JV and reviewed by the CPBGG JV's Contamination Specialist (if required) and the TfNSW ESM (or delegate) prior to commencement of construction of the Project.

This Procedure will be updated throughout construction of the Project to include any new identified sites of contamination, if required, and subsequent additional management measures. This Procedure will be reviewed annually, or as required in accordance with the continuous improvement process described in Section 8 of the Construction Contaminated Land Management Sub-plan (CCLMP).

2 Procedure

The steps to be followed in the event that contaminated material is encountered during construction are outlined below. Indicators of contamination in soils include:

- Discolouration of the soil, including staining and horizontal layers of discolouration
- Odours from soil
- Oily sheen on water leaving soils.

Step 1. Potential contaminated soil/material encountered during construction activities

If potential contaminated soil/material is encountered during excavation/construction activities:

- **Cease work** in the immediate/affected area
- The CPBGG JV Foreman / Site Supervisor will immediately notify the TfNSW ESM (or delegate) and the Environmental Representative (ER). TfNSW will notify landowners (e.g. Water NSW) where contamination is identified on their land
- Install environmental controls around the site to contain the contaminated material, including diversion of water to minimise potential spread via surface water runoff
- If it is determined that there is a risk of environmental harm from the potential contamination, the EPA will be notified immediately in accordance with the TfNSW Environmental Incident and Classification Procedure (refer to Appendix A7 of the CEMP)
- If it is determined that the contaminated soil/material may contain asbestos containing material, refer to the Asbestos Management Plan (Appendix B of the CCLMP)
- Recommence works in an alternate area where practicable.

Step 2. Environmental management and work health safety management

Prior to any contamination investigation, management or remediation activities, appropriate Safe Work Method Statements (SWMS) and Environmental Work Method Statements (EWMS) will be prepared by the ESR and reviewed by the TfNSW Project Manager,TfNSW ESM (or delegate) an the ER before commencement of works to which they apply.

Personal protective equipment (PPE) will be worn as per the relevant Safety Data Sheet/s (SDS) (where the SDS are available). This may include, but not be limited, to:

- Protective eye-wear (if not wearing a full face mask)
- Face mask
- Steel – capped rubber-soled work shoes or gumboots with no laces or disposable overshoes that have an anti-slip sole for placement over work shoes
- Single use disposable nitrile or latex gloves
- Disposable asbestos coveralls rated type 5, category 3
- Work clothes (i.e. long sleeve shirt/pants and steel capped boots).

Step 3. Undertake Detailed Site Investigation

The ESR will assess the situation and if considered necessary, commission a suitably qualified contamination specialist to undertake a contamination investigation in the area of the find.

The material will be classified in accordance with the *Waste Classification Guidelines* (EPA, 2014).

If necessary, the ESR will liaise with the relevant authorities to determine the appropriate management options. Should the Detailed Site Investigation confirm contamination an assessment will be made by the suitably qualified contamination specialist whether there is a duty to notify the EPA under the Contaminated Land Management Act 1997. Following receipt of this advice, the ESR will inform TfNSW ESM of the duty to notify. The TfNSW ESM is responsible for any notifications required under the *Contaminated Land Act 1997*.

The ESR (in consultation with TfNSW and specialists) will determine the appropriate management measures to be implemented. This may include leaving contamination undisturbed, capping of contamination, treatment or off-site disposal. Material to be disposed of off-site will be transferred to an appropriately licensed waste facility, as outlined in the CWEMP (refer to Appendix B7 of the OCEMP).

If the material is determined to be acid sulfate soil (ASS) or potential acid sulfate soil (PASS), refer to the Construction Soil and Water Management Plan for management procedures relating to ASS or PASS.

Step 4. Remedial action

If the Detailed Site Investigations conclude that the specified land is unsuitable for the final intended use, a RAP will be prepared by a suitably qualified and experienced person. TfNSW have prepared Draft RAPs for M12 West and M12 Central. The Draft RAP for the subject land will be used as a guide to prepare the RAP for remediation of that land. The RAP will be completed in accordance with all guidelines under the CLM Act 1997.

Prior to commencing with the remediation, the RAP and an Interim Audit Advice or a Section B Site Audit Statement from a NSW EPA accredited Site Auditor that certifies that the RAP is appropriate and that the site can be made suitable for the proposed use, will be submitted to the Planning Secretary for information only.

Remedial actions will be incorporated into specific Remedial Action Plans (RAPs). RAPs will be prepared by a suitably qualified and experienced person and in accordance with all guidelines under the *Contaminated Land Management Act 1997*. Where available, the Principals Draft RAP for the subject land will be used as a guide to prepare the RAP for remediation of that land.

Relevant EWMS or SWMS will be reviewed and updated when required.

Step 5. Recommence works

Recommence works once remedial works have been implemented and sampling has validated that the remediation strategy has been successful. Following implementation of the RAP, the CPBGG JV will submit a Section A1 or Section A2 Site Audit Statement and the accompanying Site Audit Report from the NSW EPA accredited site auditor, which states that the contaminated land disturbed by the works has been made suitable for the intended land use, to TfNSW, the Planning Secretary and relevant councils in accordance with NSW CoA E88 no later than one month before the commencement of operations. The TfNSW ESM (or delegate) will grant approval for the CPBGG JV to recommence works upon reviewing the documentation provided.

3 Records

CPBGG JV will maintain a register of any unexpected contamination finds, including a map of all contaminated and/or remediated sites. In addition, records will be maintained of all Site Audit statement / Auditor reviews. The register will be made available to the TfNSW ESM (or delegate) on request for inclusion in Project Monthly Reports.

Appendix E – TfNSW Environmental Incident Procedure

Appendix E
TfNSW Environmental Incident Procedure

M12 Motorway West

Project number:	
Document number:	
Revision date:	
Revision:	A

Details of Revision Amendments

Document Control

The Project Director is responsible for ensuring that this plan is reviewed and approved. The Project Director is responsible for updating this plan to reflect changes to construction, legal and other requirements, as required.

Amendments

Any revisions or amendments must be approved by the Project Director and/or client before being distributed / implemented.

Revision Details

Rev	Date	Reviewed By	Details
A			First Draft

Document Review

Position	Name	Signature	Date

Distribution of controlled copies

Copy no.	Issued to	Version

Table of Contents

Acronyms and Abbreviations

All terminology in this Procedure is taken to mean the generally accepted or dictionary definition with the exception of the following terms which have a specifically defined meaning. Acronyms are as per the OCEMP.

Term	Definition
Environmental event	A report-only event, non-compliance, regulatory action or environmental incident
Environmental incident (*as per the TfNSW Environmental Incident Procedure*)	An environmental incident is an event or set of circumstances, as a consequence of which pollution (air, water, noise, or land) or an adverse environmental impact has occurred, is occurring, or is likely to occur. Adverse environmental impact includes contamination, harm to flora and fauna (either individual species or communities), damage to heritage items and adverse community impacts. An unexpected find that is not managed in accordance with relevant procedures / guidelines is also considered an environmental incident
Investigation	The process by which the cause(s) of an environmental incident is examined and identified.
Non-compliance (*as per the TfNSW Environmental Incident Procedure*)	A failure to comply with any condition of approval, environmental assessment safeguard / mitigation measure, licence condition, permit or any other statutory approval relevant to the activity and/or area where the activity occurs
Notifiable event	Any environmental incident, report-only event or non-compliance that triggers a specific statutory requirement to notify a regulatory authority.
Pollution	Pollution (including air pollution, water pollution, noise pollution and land pollution) as defined in the dictionary to the POEO Act
Pollution incident	Has the same meaning as defined in the dictionary to the POEO Act. NB: a pollution incident as defined in the POEO Act does not include an incident or a set of circumstances involving only the emission of noise.
Regulatory action	any formal regulatory response from an environmental regulator including but not limited to penalty notices, clean-up notices, prevention notices, official cautions, show cause notices and formal warnings.
Report-only event	An environmental incident or unexpected find resulting from circumstances outside the scope of controls and of an activity.
Significant incident	An environmental incident that is likely to receive a classification of C3, C2 or C1, OR the history of the project, past performance and/or previous regulatory interest, indicate the project is likely to receive a penalty notice or be subject to prosecution, and therefore requires escalation to the Secretary and other TfNSW senior management.
Unexpected find	An unexpected discovery such as a heritage item, threatened species, contamination, asbestos or hazardous substance.

1 Introduction

The M12 Environmental Incident Classification and Reporting Procedure (the Procedure) is based upon the TfNSW Environmental Incident Classification and Reporting Procedure and amended to ensure applicability to the M12 Motorway Project (the Project) and associated State and Federal approvals.

1.1 Purpose

The Procedure aims to ensure that all personnel employed to work on the Project understand how to classify, respond to and report environmental incidents that occur as a result of Project activities.

The purpose of this Procedure is to set out the process to be followed if, during an activity being carried out, there is:

- A report-only event
- A non-compliance
- Regulatory action received
- An environmental incident
- An incident as defined under the State Infrastructure Approval
- An incident affecting protected matter(s) or non-compliance with the Federal Approval.

The Procedure sets out the steps for the:

- Identification
- Classification
- Reporting.

1.2 Scope

The Procedure is applicable to all Project activities where report-only events, non-compliances, regulatory action and environmental incidents may occur. The requirements of the Procedure must be communicated to all Project personnel (e.g. during inductions) who undertake those activities.

This includes (but is not limited to):

- Activities undertaken by contractors on behalf of TfNSW
- Temporary activities, such as preliminary investigations (e.g. geotechnical and environmental surveys)
- Construction and maintenance of TfNSW assets
- Activities at TfNSW properties and facilities.

Guidance on management responses and corrective actions required following environmental incidents and non-compliances, are detailed in the Overarching Construction Environmental Management Plan (OCEMP) and will be addressed by those with responsibility for the activity that caused the incident or non-compliance.

It is noted that the TfNSW E&S Branch is available to provide advice on appropriate responses and corrective actions in relation to individual incidents or non-compliances

2 Emergency Preparedness and Response

Emergency planning and awareness training will be undertaken for construction based upon this Procedure. All site personnel will be inducted on the incident management process detailed herein. The following equipment will be available to site personnel to utilise in the event of an incident:

- Protective gloves for certain types of corrosive chemicals
- Other personal protective equipment required for the handling of hazardous chemicals and radioactive substances
- Spill kits
- Stormwater drain guards
- Alarms for when there are issues with processes
- Firefighting equipment
- Up-to-date safety data sheets for any chemicals or fuels used or stored at the premises
- Hard hats for designated 'emergency controllers'
- Eye-wash stations.

The locations of the equipment will be detailed in the site induction. Relevant personnel will be appropriately trained on the use of all equipment. The procedure to following an event of an incident is detailed in Figure 2-1.

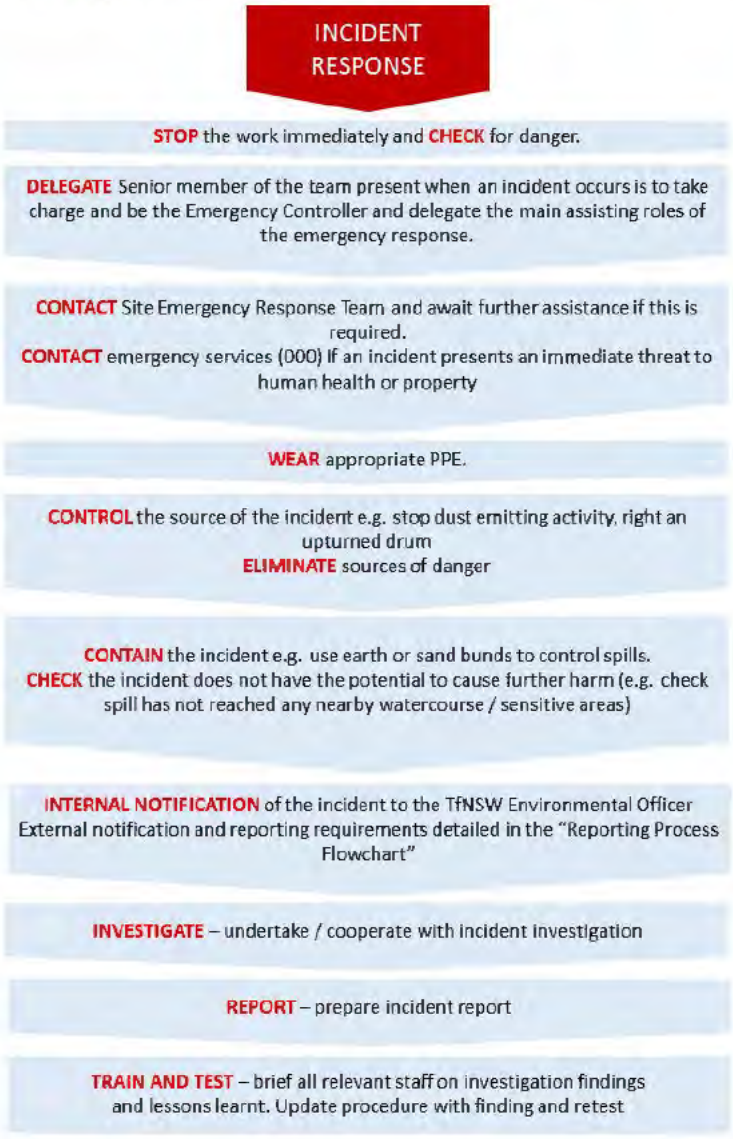


Figure 2-1 Incident response Process

2.1 Emergency and key contacts

The TfNSW Environment and Sustainability Manager is the first point of contact for enquiries relating to environmental incidents. Current contacts for relevant M12 personnel are provided in Table 2-1.

Table 2-1 Emergency and key contacts

Position / Organisation	Name	Phone
EPA pollution hotline	n/a	131 555
Fire and Rescue NSW	n/a	000 (for pollution incidents that present an immediate threat to human health or property) 1300 729 579 (for pollution incidents that do not present an immediate threat to human health or property)
NSW Health – South Western Sydney Local Health District	[redacted]	
SafeWork NSW		
Penrith City Council		
Liverpool City Council		
24 hour community information line	n/a	1800 517 155
Project Manager – East	[redacted]	
Project Manager – Central		
Project Manager – West		
TfNSW Project Director	[redacted]	
TfNSW Utilities Manager		
TfNSW Environment and Sustainability Manager		
TfNSW Environment and Sustainability Manager		
TfNSW M12 Community and Stakeholder Engagement Representative		
TfNSW M12 WHS Partner		
TfNSW Environment Officer		
TfNSW Sustainability Advisor		
Department of Planning, Industry and Environment		
Sydney Metro – Western Sydney Airport		
University of Sydney		
Western Sydney International Airport		

2.2 Accountabilities

Table 2-2 Key accountabilities for implementing this Procedure

Requirement	Detail
TfNSW Environment Director	• Oversee compliance with the procedure and make the final determination on the classification of all environmental incidents, report-only events and non-compliances
TfNSW Environment reporting team	• Recording of all environmental incidents, report-only events, non-compliances and regulatory action, confirm / amend the classification of environmental incidents, report-only events and non-compliances in accordance with section 3.1 and monitor compliance with the Procedure

Requirement	Detail
TfNSW Executive Director Environment and Sustainability	• Make determinations on whether an environmental incident will be considered a Significant Incident (see section 3.1.2). Assume the role of Information Distributor when a Significant Incident has occurred (see Appendix A).
Observer of environmental incident, report-only event, non-compliance or regulatory action	• Immediately report in accordance with this Procedure**Error! Reference source not found.**
Person/s responsible for environmental incident, report-only event, non-compliance or regulatory action	• Report and respond in accordance with this Procedure**Error! Reference source not found.**
Project Managers	• Provide appropriate resources to respond to an environmental incident, report-only event, non-compliance or regulatory action in accordance with this Procedure
Environmental Site Representative	• Notify TfNSW and relevant authorities in the event of an environmental incident and manage close-out of these • Stop activities where there is an actual or immediate risk of harm to the environment, or to prevent environmental non-conformances, and advise the Construction Contractor's Project Manager, Construction Manager and Superintendent • Report and respond in accordance with this Procedure

3 Requirements

3.1 Incident classification

This Procedure is applicable to a range of environmental incidents, report-only events, non-compliances and regulatory action that may occur during Project activities. Each of these events and their reporting requirements are described in the following sections.

Personnel using this Procedure should consider the definitions of each of these events when reporting. Definitions are provided in the definitions table at the beginning of this Procedure.

Note that a set of circumstances may be both a non-compliance and an environmental incident. An environmental incident could also result in regulatory action.

3.1.1 Environmental incidents

Environmental incident classifications are described in Table 3-1. The classification system is aligned to the consequence levels (C6 – C1) from the TfNSW Enterprise Risk Management Standard and considers the key risk areas of:

- Environment
- Reputation and Integrity
- Regulations and Compliance.

The appropriate consequence level for each of the three key risk areas will be recorded for each incident, but only the highest recorded consequence level will be used as the incident classification for reporting purposes.

Note that not all criteria described for each consequence level in Table 3-1need to be met in order to assign an incident classification – the most appropriate criteria should be considered when determining the consequence level for each key risk area for each incident.

Table 3-1 Environmental incident classification

	Incident Category					
Key risk area	**C6 Insignificant**	**C5 Minor**	**C4 Moderate**	**C3 Major**	**C2 Severe**	**C1 Catastrophic**
Environment	No appreciable changes to environment.	Change from existing conditions that can be rectified immediately (< 1 day) with available resources.	Short-term (< 1 year) and/or well-contained environmental impact. Minor remedial actions probably required.	Short to medium term (between 1 and <5 years) environmental impact. Considerable remedial actions probably required.	Medium-term (>5 years) environmental impact. Extensive remedial actions probably required.	Long-term (>10 years) large-scale environmental impact. Extensive and ongoing remedial actions probably required.
Reputation and integrity	Single negative article in local media. Limited social media commentary. Goodwill, confidence and trust retained. Confined to the Branch. Local council may want to discuss.	Series of negative articles in local media (District / electorate based adverse media). Some social media commentary. Confidence remains - minor loss of goodwill. Confined to Branch but requiring notification to Division. Council requires written explanation. Recoverable with little effort or cost. Some continuing scrutiny/attention.	Extended local media coverage with some broader Regional media coverage. Extended negative social media coverage. Confidence and trust of stakeholders dented (recoverable at modest cost within existing budget and resources). Division formal response needed to State Government/Regulator.	State media coverage, short term negative national media coverage. Widespread social media coverage Confidence/trust impaired. Project/activity credibility under question. TfNSW and/or Ministers Department requires update.	Sustained negative State media coverage. Regular 'talk-back' programs questioning credibility and capability. Confidence and trust are severely damaged. Widespread negative social media coverage. Regular updates demanded by Minister. Stakeholders withdraw their support recoverable at considerable cost, time and staff effort.	Sustained, high profile media attention at National level. Material change in the public perception of the Agency. Extensive negative social media coverage Confidence and trust non-existing. Government forced to reverse decision. Stakeholders are actively campaigning against the organisation.
Regulations and compliance	Low-level/Technical non-compliance with legal and/or regulatory requirement or duty by individuals or TfNSW- not reportable.	Non-compliance with whole or significant aspects of Government policy not reportable but requiring internal activity to put in place.	Non-compliance with key Government policy - reportable and/or explanation required – need to put in place as soon as possible.	Technical non-compliance with a minor Government Policy - not reportable. Low level non-compliance.	Non-compliance with high profile, outward facing Government policy or Ministerial decree - immediately reportable to Government body (e.g. Treasury) and action to	Non-compliance with high profile Government policy or Ministerial decree - immediately reportable to Ministerial level requiring actions to put in place immediately

	Incident Category					
	Minor non-compliance to a low impact contract clause – little or no interest by either party to pursue or rectity.	Formal investigation and/or formal notification to regulator. Minor breach of contract by either party rectified through local management discussion.	Non-compliance – key obligation. Formal notification to regulator. Agency on notice. Breach of contract by either party rectified at Branch level management discussion. Small fine and no disruption to services.	Technical non-conformance. Minor non-compliance to a low impact contract clause – little or no interest by either party to pursue or rectify. Substantial fine and no disruption to services.	put in place required immediately (high priority). Continuous breach resulting in prohibition notices. Breach of significant, key aspects of contract by either party leading to lodgement (threat) to sue and recompense at severe financial levels Cessation of contract may occur. Large fines as a result of non-compliance. Licence or accreditation restricted or conditional affecting ability to operate.	(high priority) and progress to be reported to the Minister on an agreed and appropriate schedule. Litigation and potentially imprisonment. Loss of Operating licenses. Continued breach cannot be tolerated. Major contract breach by either party leading to significant litigation and financial costs . Total breakdown and cessation of contract. Criminal prosecution as a result of non-compliance.

3.1.2 Significant environmental incidents

Significant Incidents are environmental incidents that are serious in nature and have significant consequences warranting escalation to TfNSW senior management.

An environmental incident is to be defined and treated by the TfNSW Environment Manager as a potential Significant Incident if it meets one or both of the following:

- The severity of the incident is likely to be classified as C3, C2, or C1 in accordance with Table 3-1
- The history of the Project, past performance and/or previous regulatory interest, indicate the Project is likely to be the subject of a penalty notice or prosecution.

Potential Significant Incidents are escalated by TfNSW to the Executive Director Environment and Sustainability, who will determine whether the incident is deemed to be a Significant Incident and require further escalation to the Secretary and other senior management, to ensure they are aware of the incident and can implement or authorise any required responses.

3.1.3 Incidents affecting protected matter(s)

In the Commonwealth Approval, incident affecting protected matter(s) means any event which has the potential to, or does, impact on one or more protected matter(s), other than as authorised by the Commonwealth Approval. Protected matter means Matters of National Environmental Significance (MNES) as outlined in Part 3 of the *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act). These include:

- World Heritage sites
- National Heritage sites
- Wetlands of International Importance (RAMSAR Wetlands)
- Listed threatened species and communities
- Listed migratory species
- Marine environments.

Should an incident directly or indirectly impact protected matter(s) identified by the EPBC Act, the Procedure outlined in the Procedure outlined below should be followed.

3.1.4 Report-only events

Examples of report-only events include:

- Environmental incidents caused by weather events that are beyond the design capacity of environmental controls and/or mitigation measures in accordance with project specific requirements
- Environmental incidents caused by persons or entities not associated with an activity being undertaken by the Project
- Pre-existing conditions not associated with an activity being undertaken by the Project
- Unexpected finds that are managed in accordance with relevant procedures / guidelines.

Report-only events can be considered to be unavoidable and so not reflecting the performance of a site, and will not be included in performance reporting. However, the response to a report-only event should be taken into account when considering site performance, as a deficient or inappropriate management response could result in a non-compliance and/or an environmental incident.

Where a report-only event relates to an unexpected find and the same issue can then reasonably expected to be found at the same location in future, additional finds from that location need not be reported.

3.2 Reporting Process

3.2.1 Standard notification and reporting

The standard reporting process for all environmental incidents, significant environmental incidents, report-only events, non-compliances and regulatory action is detailed in

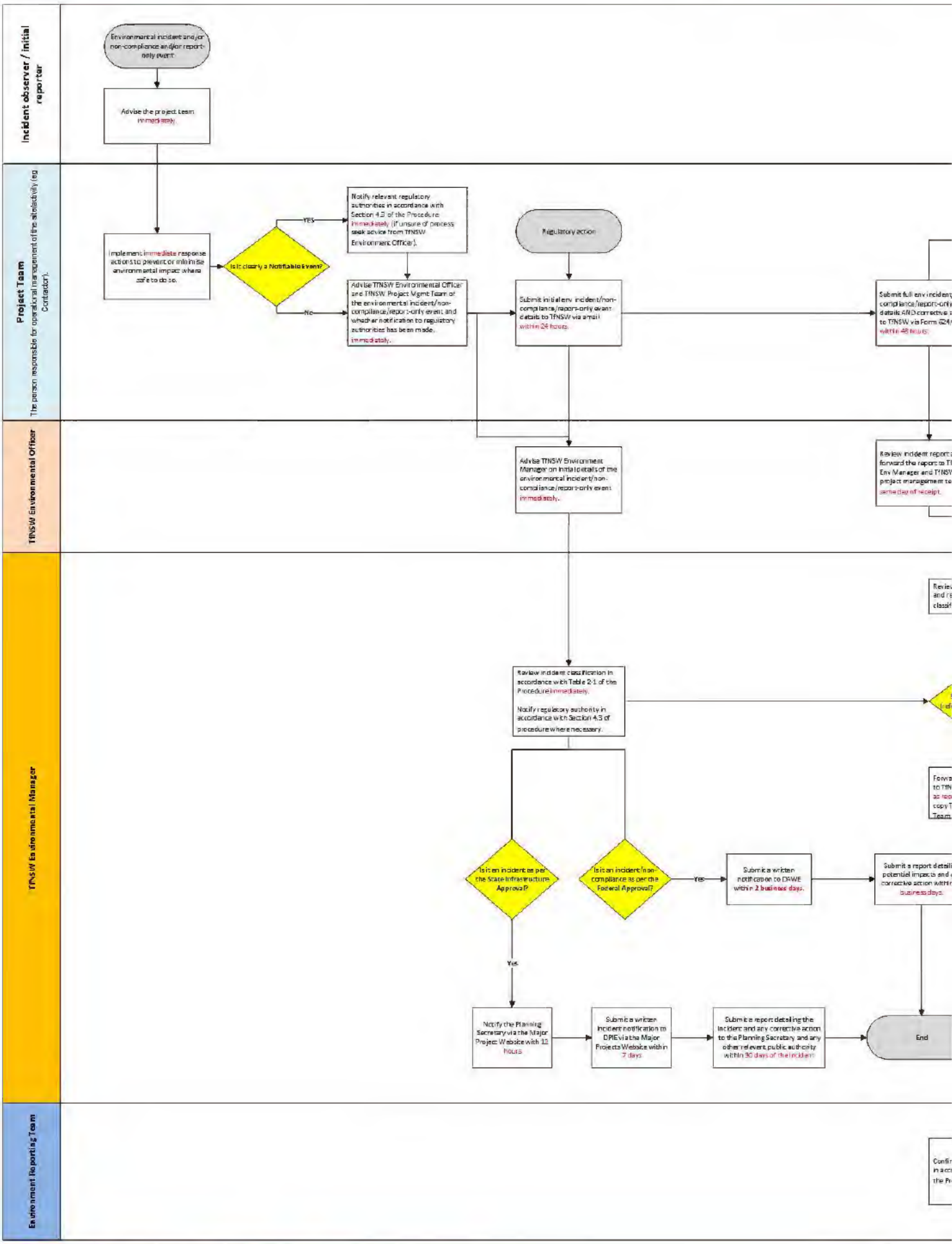

Incident observer / initial reporter
Environmental incident and/or non-compliance and/or report-only event
Advise the project team immediately.
Project Team
The person responsible for operational management of the site/activity (eg Contractor).
Implement immediate response actions to prevent or minimise environmental impact where safe to do so.
Is it clearly a Notifiable Event?
YES
Notify relevant regulatory authorities in accordance with Section 4.3 of the Procedure immediately (if unsure of process seek advice from TfNSW Environment Officer).
NO
Advise TfNSW Environmental Officer and TfNSW Project Mgmt Team of the environmental incident/non-compliance/report-only event and whether notification to regulatory authorities has been made. immediately.
Regulatory action
Submit initial env. incident/non-compliance/report-only event details to TfNSW via email within 24 hours.
Submit full env incident/ compliance/report-only details AND corrective a to TfNSW via Form 624 within 48 hours.
TfNSW Environmental Officer
Advise TfNSW Environment Manager on initial details of the environmental incident/non-compliance/report-only event immediately.
Review incident report forward the report to T Env Manager and TfNSW project management te same day of receipt.
TfNSW Environmental Manager
Review incident classification in accordance with Table 2-1 of the Procedure immediately.
Notify regulatory authority in accordance with Section 4.3 of procedure where necessary.
Is it an incident as per the State Infrastructure Approval?
Is it an incident/non-compliance as per the Federal Approval?
Yes
Submit a written notification to DSWE within 2 business days.
Submit a report detail potential impacts and corrective action within business days.
Yes
Notify the Planning Secretary via the Major Project Website with 12 hours
Submit a written incident notification to DPIE via the Major Projects Website within 7 days
Submit a report detailing the incident and any corrective action to the Planning Secretary and any other relevant public authority within 30 days of the incident
End
Environment Reporting Team

Figure 3-1.

Where the reporting process requires submission of a written report to TfNSW, the person making the report must use the Environmental Event Reporting Form (624/400).

Initial notification

Advise TfNSW Environment staff and the Project Manager immediately on becoming aware of an environmental event.

Initial notification of the environmental event must be submitted to TfNSW within 24 hours of the incident. The Environmental Event Reporting Form must be completed and submitted within 48 hours for environmental incidents, non-compliances and report-only events.

Information included in reporting must be factual and accurate.

For the initial 24-hour email notification, the following information must be provided:

- Date of event
- Project / site name
- Type of event that has occurred (i.e. environmental incident, incident and non-compliance, non-compliance, report-only or regulatory action)
- Description of the event
- Quantity / volume
- Immediate response actions that were implemented
- Notification/s undertaken.

In the case that regulatory action is received relating to a previously reported environmental incident, non-compliance or report-only event, reference to the relevant event must be made in the report for the regulatory action.

Environmental Event Reporting Form

All Environmental Incident Reporting Forms must be populated, signed and submitted electronically (never printed / signed / scanned etc.) to enable TfNSW to electronically capture the information entered in the form.

Completed Environmental Event Report Forms should be submitted by the Construction Contractor's Environmental Site Representative to the Environment Operations mailbox:

- envops@transport.nsw.gov.au

It is essential that a clear and consistent subject line convention is used to allow tracking of correspondence about each incident. All emails about an incident between all parties should structure the subject line as follows:

- Category X - project name / incident location - date
- For example, Category 1 – Main Road Upgrade – dd/mm/yy.

Where information cannot be gathered within the timeframes set out in this Procedure, the incident form should be submitted to the mailbox as a 'draft', whether or not the information contained is fully completed.

- For example, Category 1 – Main Road Upgrade – dd/mm/yy (DRAFT).

The Construction Contractor's Environment Manager should then request further information from the person making the report, and the final report should be submitted within the next 24 hours.

3.2.2 NSW Infrastructure Approval

In addition to the reporting requirements outlined in Section 3.2.1, an incident that meets the criteria outlined in Schedule 1 of the Infrastructure Approval must also be reported in accordance with NSW CoA A44 and A45.

An 'incident' as defined by the State Infrastructure Approval includes 'an occurrence or set of circumstances that causes or threatens to cause material harm and which may or may not be or cause a non-compliance'.

Material harm is defined within the State Infrastructure Approval as harm that:

1. Involves actual or potential harm to the health or safety of human beings or to the environment that is not trivial, or
2. Results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding $10,000, (such loss includes the reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment).

TfNSW are responsible for notifying the Planning Secretary of an incident in writing via the Major Projects Website as soon as possible and no later than 12 hours after becoming aware of an incident.

In accordance with Appendix A of the NSW Infrastructure approval:

1. Additional written incident notification addressing the requirements set out below must be submitted to DPIE via the Major Projects website within seven days after becoming aware of an incident. The incident notification must include the following:
   a) Identify the CSSI and application number
   b) Provide details of the incident (date, time, location, a brief description of what occurred and why it is classified as an incident)
   c) Identify how the incident was detected
   d) Identify when the Proponent became aware of the incident
   e) Identify any actual or potential non-compliance with conditions of approval
   f) Describe what immediate steps were taken in relation to the incident
   g) Identify further action that will be taken in relation to the incident
   h) Identify a project contact for further communication regarding the incident.
2. Within 30 days of the date on which the incident occurred or as otherwise agreed to by the Planning Secretary, TfNSW must provide the Planning Secretary and any relevant public authorities (as determined by the Planning Secretary) with a detailed report on the incident addressing all requirements below, and such further reports as may be requested:
   a) A summary of the incident
   b) Outcomes of an incident investigation, including identification of the cause of the incident
   c) Details of the corrective and preventative actions that have been, or will be, implemented to address the incident and prevent recurrence
   d) Details of any communication with other stakeholders regarding the incident.

3.2.3 Commonwealth incident reporting

Should an event occur that has the potential to, or does impact Matters of National Environmental Significance (MNES) other than as authorised by the Commonwealth Approval, the Department of Agriculture, Water and Environment (DAWE) will require notification as outlined in Commonwealth CoA 11 and 12. MNES relevant to construction are outlined in Section 4.2 of the CFFMP and include:

- Grey-headed Flying-fox habitat
- Southern Myotis
- Sydney Bush Pea (*Pultenaea parviflora*)
- Spiked Rice flower (*Pimelea spicata*).

In the event of an incident that has the potential to impact or does impact a protected matter other than as authorised by the Commonwealth approval the Construction Contractor will verbally notify the Environmental Representative (ER) and the TfNSW Environment and Sustainability Manager (or delegate) immediately.

The Construction Contractor will submit an Environmental Event Report Form as outlined in Section 3.2 of this Procedure.

In accordance with the Commonwealth Approval, TfNSW must notify DAWE in writing as soon as practicable and no later than 2 business days after becoming aware of the incident. The notification must specify:

- Any condition which is or may be in breach

- A short description of the incident affecting protected matters and/or non-compliance
- The location (including co-ordinates), date, and time of the incident and/or non-compliance. In the event the exact information cannot be provided, provide the best information available.

TfNSW will be responsible for providing DAWE with further details of the incident as soon as practicable and no later than 10 business days after becoming aware of the incident.

The details to be provided to DAWE include:

- Any corrective action or investigation which TfNSW has already taken or intends to take in the immediate future
- The potential impacts of the incident affecting protected matters or non-compliance
- The method and timing of any remedial action that will be undertaken by TfNSW.

3.2.4 Other TfNSW notification requirements

When reporting in accordance with this Procedure, TfNSW project management teams should also undertake the following internal notifications as appropriate:

- Corporate Communications / Media for any environmental incidents, report-only events, non-compliances and regulatory action that have potential for negative community or media attention;
- Legal Branch, for any environmental incidents, report-only events, non-compliances and regulatory action that could result in a (further, in the case of the latter) regulatory response against TfNSW. In these instances, limit written commentary on the incident by all staff, including emails;
- Safety Branch for any incidents that involve actual or potential risks to the health and safety of workers or the general public.

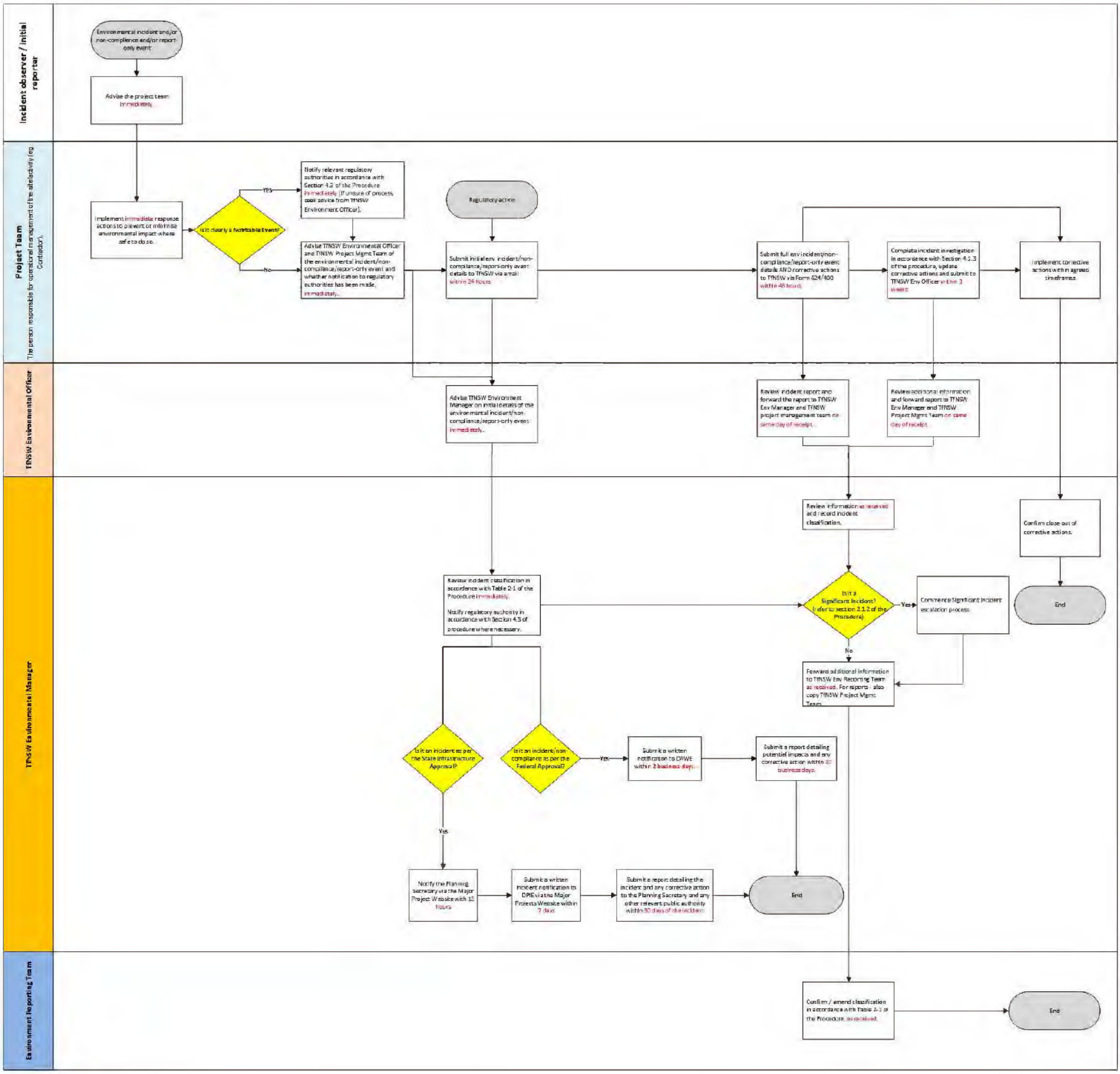


Figure 3-1 Reporting Process

3.3 Notifiable incidents – POEO Act

A notifiable event is any environmental incident, report-only event or non-compliance that triggers a specific statutory requirement to notify an authority.

The key notification requirements are described in Section 3.3. Note each statutory requirement to notify may specify a particular person who is responsible to make the notification as well as the timing of when this must occur.

3.3.1 Material Harm pollution incidents

Under Part 5.7 of the POEO Act, there is a duty to immediately notify (i.e. promptly and without delay) each relevant authority (refer to Section 1) of a pollution incident where material harm to the environment is caused or threatened.

The POEO Act states that a pollution incident should be considered Material Harm if:

> *"(i) it involves actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial, or*
>
> *(ii) it results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding $10,000"*

Material Harm only relates to pollution incidents. Other environmental incidents, such as conservation, heritage and planning breaches, are not included in the definition of a pollution incident.

Material Harm pollution incidents require notification to the NSW Planning Secretary as required by NSW CoA A44 and A45.

3.3.2 Determination of Material Harm

The determination on whether a pollution incident should be considered Material Harm should be made in accordance with Table 3-2.

Table 3-2 Determination of Material Harm pollution incidents

Project delivery	Material Harm determination
Activities undertaken by contractors	The M12 project team will make the determination (and any associated notifications) on whether a pollution incident should be considered Material Harm. The relevant TfNSW Environment Manager or Environment Branch Director may contact the DES to assist in making an assessment of the incident, to aid the contractor in determining if the pollution incident should be considered Material Harm. Where TfNSW believes a pollution incident should be considered Material Harm but the contractor disagrees, TfNSW is required by law to notify EPA, NSW DPIE and other relevant authorities. In this instance the DES or DE would make a determination on whether the incident should be notified by Transport for NSW as Material Harm. Transport for NSW would provide details of any notifications made to the contractor.

Even if only limited information is available for a pollution incident being considered Material Harm, each relevant authority must be immediately notified with the information available and updates provided as soon as further relevant information becomes available.

In circumstances where there is doubt about the need to notify a pollution incident as Material Harm, Transport for NSW and its contractors should always err on the side of notification.

3.3.3 Notification of Material Harm pollution incidents

The relevant authorities that must be notified for a Material Harm pollution incident are listed in and below. It is important to note the order of notification and phone numbers to use can vary depending on the nature of the pollution incident, as detailed in Table 3-3 and Table 3-4.

All of the authorities listed (whether considered relevant or not) must be contacted for each Material Harm pollution incident to satisfy POEO Act requirements. Serious penalties apply to both individuals and corporations for failing to notify Material Harm pollution incidents:

- Maximum penalty for individuals - $500,000
- Maximum penalty for corporations - $2,000,000.

Table 3-3 Authorities to notify for Material Harm pollution incidents that present an immediate threat to human health or property

Order	Authority	Contact Number
1	Fire and Rescue NSW	000
2	NSW EPA environment line	131 555
3	Ministry of Health (via the local Public Health Unit)	Contact 1300 066 055 to be directed to the local Public Health Unit, or visit the NSW Health Website
4	SafeWork NSW	131 050
5	The Appropriate Regulatory Authority, being either: • Local council • DPIE	Local council - contact Office of Local Government on 4428 4100, or visit the Office of Local Government website Via the Major Projects Portal

Table 3-4 Authorities to notify for Material Harm pollution incidents that do NOT present an immediate threat to human health or property

Order	Authority	Contact Number
1	NSW EPA environment line	131 555
2	Fairfield City Council	02 9725 0222
3	Liverpool City Council	1300 362 170
4	Penrith City Council	02 4732 7777
5	Ministry of Health (via the local Public Health Unit)*	Contact 1300 066 055 to be directed to the local Public Health Unit, or visit the NSW Health Website
6	SafeWork NSW	131 050
7	Fire and Rescue NSW	1300 729 579
8	DPIE Alex McGuirk (Senior Compliance Officer)	Via the Major Projects Portal or (02) 9995 6038 0427 749 597

Relevant information to provide

Section 150 of the POEO Act provides the information that needs to be notified, being:

a) The time, date, nature, duration and location of the incident
b) The location of the place where pollution is occurring or is likely to occur, the nature, the estimated quantity or volume and the concentration of any pollutants involved, if known
c) The circumstances in which the incident occurred (including the cause of the incident, if known)
d) The action taken or proposed to be taken to deal with the incident and any resulting pollution or threatened pollution, if known
e) Other information prescribed by the regulations.

Only known information should be provided when notifying of a Material Harm pollution incident. If further information becomes known after the initial notification, that information must immediately be notified to all authorities in accordance with Section 150. The immediate verbal notification is to be followed by written notification to each relevant authority within seven days of the date on which the incident occurred.

Complying with these notification requirements does not remove the need to comply with any other legislative requirements for incident notification (e.g. requirements under the conditions of an EPL or the Work Health and Safety Act 2011).

Relevant information required for notification to DPIE in accordance with NSW CoA A44 and NSW CoA A45 is outlined in Section 3.2.2.

3.3.4 Summary of other regulatory agency notification requirements

Specific statutory requirements relating to the notification of environmental incidents to relevant regulatory agencies are summarised in Table 3-5. Additional requirements adopted by TfNSW are indicated in italics. Any notification to regulatory agencies should be indicated in the Environmental Event Report Form to confirm that any required notifications have been initiated.

Table 3-5 Regulatory agency notification requirements

Legislation / issue	Regulating authority	Section / requirement
Commonwealth Aboriginal and Torres Strait Islanders Heritage Protection Act 1984	Department of Agriculture, Water and Environment	Section 20 – requirement to notify the Minister of the discovery of Aboriginal remains.
Contaminated Land Management Act 1997	EPA	Section 60 – requirement to notify if Transport for NSW activities have contaminated land or if Transport for NSW owns land that has been contaminated.
Heritage Act 1977	Heritage NSW	Section 146 – requirement to notify the Heritage Council of the location of the relic once a relic has been discovered or located.
National Parks and Wildlife Act 1974	Environmental, Energy and Science (a part of NSW DPIE)	Section 89A – requirement to notify the location of an Aboriginal object that is the property of the Crown.
Protection of the Environment Operations Act 1997	EPA and other relevant authorities	Section 148 – requirement to immediately notify pollution incidents that cause or threaten Material Harm to the environment (see Section 5.1)
	EPA	Pro-active reporting to the local EPA officer of offsite pollution incidents that occur as a result of Transport for NSW activities is encouraged as soon as practicable after the pollution incident occurs.
Rural Fires Act 1997	NSW Rural Fire Service	Section 64 – requirement to notify an appropriate fire officer of the inability to extinguish any fire burning during a bush fire danger period applicable to the land.
Incidents as defined under the NSW Infrastructure Approval or the Commonwealth Approval	Department of Planning, Industry and Environment (DPIE) Department of Agriculture, Water and Environment (DAWE)	NSW CoA A44 and A45 Commonwealth CoA 11 and CoA 12
Water supply catchment areas	Local water supply authority	If an environmental incident has the potential for unapproved impacts on a drinking water supply, the relevant water supply authority must be advised.

3.4 Requests for written reports from regulatory authorities

Should the Construction Contractor directly receive a request from a regulatory authority for a written report regarding an environmental incident, the TfNSW Environment and Sustainability Manager must be immediately contacted for advice. No further correspondence (including email) about the incident should be distributed either internally or externally until advice is received. The TfNSW Environment and Sustainability Manager will then assist the Contractor to:

- Assist in the investigation of the incident
- Provide legal advice to the Project
- Co-ordinate the preparation of the written response to the regulatory authority.

4 Significant incident escalation process

Where a TfNSW Environment Manager believes that a Significant Incident has occurred, they must immediately phone the relevant TfNSW Environment Director. The TfNSW Environment Director will consult with the TfNSW Executive Director Environment and Sustainability, who will determine whether the incident will be considered a Significant Incident. Once a Significant Incident has been determined, the escalation process will commence as outlined below.

4.1 Significant incident information management

Following determination of a Significant Incident, it is essential that there is fast, consistent and accurate reporting of information to the TfNSW senior management. As such, clear roles and responsibilities must be established in two key areas, as described in Table 4-1.

Table 4-1 Roles and responsibilities during a significant incident

Role	Who	Responsibilities
Information Controller	TfNSW Environment Manager (or relevant TfNSW Environment Officer in their absence)	• Liaise between the on-site TfNSW project management team and the Information Distributor (below) • Be the single point of contact to provide information and updates about the status of the Significant Incident to the Information Distributor
Information Distributor	TfNSW Executive Director Environment and Sustainability (or relevant TfNSW Environment Director in their absence)	• Identify the relevant members of the TfNSW Executive and other TfNSW senior management that will form the distribution group to be informed about the Significant Incident • Consolidate information from the Information Controller, and distribute it to the distribution group • Provide key ongoing updates to the distribution group as it becomes available • Respond to enquiries from the distribution group, ensuring all members of the distribution group are copied into every response

4.2 Parties to be notified

The Information Distributor must identify relevant TfNSW senior management from delivery and client divisions that will form the distribution group to be informed about the Significant Incident, including ongoing updates. Table A3 provides the key positions that must be included (at a minimum), depending on who is undertaking the activity. Depending on the type and location of the activity, there may be other areas of TfNSW that should be included in the distribution group.

The distribution group should all be notified concurrently in a single email that a Significant Incident has occurred. The email should be sent by the Information Distributor within five minutes of making the determination of the Significant Incident.

Table 4-2 TfNSW Distribution group to be notified of a Significant Incident

Position	Greater Sydney
Transport exec notification	• Secretary
SER executive notification	• Deputy Secretary, Safety Environment and Regulation
Client executive notification	• Deputy Secretary, Greater Sydney • Executive Director, Community and Place • Director Western Parkland City
Delivery executive notification	• Deputy Secretary, Infrastructure and Place • Head of Sydney Project Delivery • Executive Director Western Sydney Project Office
Project Team notification	• M12 Project Director • M12 Deputy Project Director • M12 Project Manager • M12 Environment Manager

4.3 Non-compliances

A non-compliance is a failure to comply with any condition of approval, environmental assessment safeguard / mitigation measure, licence condition, permit or any other statutory approval relevant to the activity and/or area where the activity occurs.

A non-compliance could also be an environmental incident.

4.4 Regulatory action

Regulatory action includes, but is not limited to:

- Prosecutions
- Penalty notices
- Clean up notices
- Prevention notices
- Official cautions
- Formal warnings
- EPA show cause notifications.

Copies of any regulatory action issued by an environmental regulator must be provided as part of the reporting that is undertaken in accordance with this Procedure.

5 Investigations

A root cause analysis investigation must be completed by the Construction Contractor for all environmental incidents with a classification of C1, C2 or C3, or any other environmental incidents or non-compliances as determined by TfNSW.

The scope of the investigation will be determined by the TfNSW Environment Officer or Environment Manager. The Construction Contractor must provide TfNSW with a final investigation report within three weeks of the environmental incident or non-compliance being identified. The report must include the minimum information described in Table 5-1.

Table 5-1 Investigation report

Element	Description
Sequence of events	The sequence of events that led to the incident or non-compliance
Findings	Given the sequence of events, what are the key findings of the investigation (i.e. what are the main causes of the incident or non-compliance).
Management methods	A record of the management methods to be changed and/or implemented to avoid the incident or non-compliance reoccurring.
Key learnings	Describe the key learnings from the investigation into the incident or non-compliance. Detail which learnings may be relevant to other transport projects.

6 Corrective actions

There are a variety of scenarios in which an environmental event may occur. It is important that corrective actions are:

- Specific to the incident that has occurred
- Meaningfully address the root cause(s) of the incident
- Designed to prevent incident reoccurrence.

Corrective actions could include (but are not limited to) the following:

- Physical works to install, augment or rectify controls or a site issue
- Testing and/or monitoring
- Review and improvement of construction methods or work practices
- Review and update of management plans, procedures or other tools
- Communication, training and awareness initiatives for workers.

In most cases it will not be sufficient to simply notify workers of correct systems / procedures (e.g. via toolbox talk). A review should be undertaken by the Construction Contractor following an incident or non-compliance to determine why the systems / procedures failed (or alternatively a formal investigation), and necessary changes made to ensure they do not fail in future. Site personnel should then be made aware of the changes and trained as necessary.

Immediate/short-term corrective actions including timeframes for completion must be clearly described in incident/non-compliance reporting. Updates about longer-term corrective actions including timeframes for completion can be provided to the TfNSW Environment Officer and TfNSW Project Management Team post submission of the incident/non-compliance report.

Appendix F - Consultation Correspondence

Zvirzdinas, Andrew

From: Zvirzdinas, Andrew
Sent: Thursday, 16 June 2022 11:51 AM
To: [redacted]
Cc:
Subject: RE: M12 Motorway West Site Establishment Management Plan (SEMP)

Hi Francois.

We have not received a response from Traffic Management Centre to the request for feedback on the M12 Motorway West Site Establishment Management Plan (SEMP).

If you would like additional time to review the documents, please let me know. The final draft document is being submitted to the NSW Department of Planning and Environment by COB Tuesday 21st June 2022.
We will accept comments until COB Monday 20th June 2022 ahead of submission should Traffic Management Centre wish to comment.

If no response is received by this date, CPBGG JV will register the Traffic Management Centre as 'no comment' for this plan.
Please let me know if you need further details

Regards

Andrew

From: Zvirzdinas, Andrew
Sent: Monday, 30 May 2022 3:48 PM
To: [redacted]
Cc:
Subject: M12 Motorway West Site Establishment Management Plan (SEMP)

Dear Francois,

Please find details below relating to the consultation process for the M12 West Site Establishment Environmental Management Plan (SEMP).

As part of the greater Transport for New South Wales M12 Motorway project, CPB Contractors and Georgiou Group Joint Venture (CPBGG JV) has been awarded the M12 Motorway West project. The M12 West Motorway Project involves construction of a new approximately 6km of dual carriageway motorway between The Northern Road, Luddenham and approximately 250m east of Badgerys Creek, including Western Sydney International Airport (WSIA) Interchange and Elizabeth Drive Interchange.

Condition A16 of the NSW Planning Approval (SSI-9364) requires the SEMP to be prepared in consultation with the relevant council(s) and relevant Stage Government Agencies. The draft Site Establishment Management Plan (SEMP) for the M12 Motorway West is attached for your review and comment. The plan itself outlines how CPBGG JV will implement environmental management practices and procedures during the establishment of construction ancillary facilities for the project. Environmental compliance will be achieved via the application of the CPB Environmental Management System (EMS).

The agency consultation period runs from **Monday 30 May to 5pm on Friday 10 June 2022.** Once the consultation period is over, all stakeholder comments will be considered as part of the final SEMP review and endorsement by the Environmental Representative and submission to the Secretary of the Department of Planning and Environment (DPE).

We request that you review the attached document and provide comments on the attached sheet.

For more information on the SEMP stakeholder consultation, please feel free to contact me directly by phone on [redacted] or reply to this email.

For more information on the overall M12 Motorway project, please visit https://roads-waterways.transport.nsw.gov.au/projects/m12-motorway/index.html .

Regards

Andrew Zvirzdinas
Environment Manager

CPB CONTRACTORS

[redacted]

Zvirzdinas, Andrew

From: Zvirzdinas, Andrew
Sent: Thursday, 16 June 2022 11:51 AM
To: [redacted]
Cc: Ross, Jennifer; Ennis, Paul
Subject: RE: M12 Motorway West Site Establishment Management Plan (SEMP)

Hi Ari.

We have not received a response from Penrith City Council to the request for feedback on the M12 Motorway West Site Establishment Management Plan (SEMP).

If you would like additional time to review the documents, please let me know. The final draft document is being submitted to the NSW Department of Planning and Environment by COB Tuesday 21st June 2022.
We will accept comments until COB Monday 20th June 2022 ahead of submission should Penrith City Council wish to comment.

If no response is received by this date, CPBGG JV will register the Penrith City Council as 'no comment' for this plan. Please let me know if you need further details

Regards

Andrew

From: Zvirzdinas, Andrew
Sent: Monday, 30 May 2022 3:48 PM
To: [redacted]
Cc:
Subject: M12 Motorway West Site Establishment Management Plan (SEMP)

Dear Ari,

Please find details below relating to the consultation process for the M12 West Site Establishment Environmental Management Plan (SEMP).

As part of the greater Transport for New South Wales M12 Motorway project, CPB Contractors and Georgiou Group Joint Venture (CPBGG JV) has been awarded the M12 Motorway West project. The M12 West Motorway Project involves construction of a new approximately 6km of dual carriageway motorway between The Northern Road, Luddenham and approximately 250m east of Badgerys Creek, including Western Sydney International Airport (WSIA) Interchange and Elizabeth Drive Interchange.

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For more information on the overall M12 Motorway project, please visit https://roads-waterways.transport.nsw.gov.au/projects/m12-motorway/index.html .

Regards

Andrew Zvirzdinas
Environment Manager
CPB CONTRACTORS
[redacted]

Zvirzdinas, Andrew

From: Zvirzdinas, Andrew
Sent: Thursday, 16 June 2022 11:51 AM
To: [redacted]
Cc:
Subject: RE: M12 Motorway West Site Establishment Management Plan (SEMP)

Hi Charles.

We have not received a response from Liverpool City Council to the request for feedback on the M12 Motorway West Site Establishment Management Plan (SEMP).

If you would like additional time to review the documents, please let me know. The final draft document is being submitted to the NSW Department of Planning and Environment by COB Tuesday 21st June 2022.
We will accept comments until COB Monday 20th June 2022 ahead of submission should Liverpool City Council wish to comment.

If no response is received by this date, CPBGG JV will register the Liverpool City Council as 'no comment' for this plan.
Please let me know if you need further details

Regards

Andrew

From: Zvirzdinas, Andrew
Sent: Monday, 30 May 2022 3:48 PM
To: [redacted]
Cc:
Subject: M12 Motorway West Site Establishment Management Plan (SEMP)

Dear Charles,

Please find details below relating to the consultation process for the M12 West Site Establishment Environmental Management Plan (SEMP).

As part of the greater Transport for New South Wales M12 Motorway project, CPB Contractors and Georgiou Group Joint Venture (CPBGG JV) has been awarded the M12 Motorway West project. The M12 West Motorway Project involves construction of a new approximately 6km of dual carriageway motorway between The Northern Road, Luddenham and approximately 250m east of Badgerys Creek, including Western Sydney International Airport (WSIA) Interchange and Elizabeth Drive Interchange.

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We request that you review the attached document and provide comments on the attached sheet.

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For more information on the overall M12 Motorway project, please visit https://roads-waterways.transport.nsw.gov.au/projects/m12-motorway/index.html .

Regards

Andrew Zvirzdinas
Environment Manager
CPB CONTRACTORS
[redacted]

Zvirzdinas, Andrew

From: Zvirzdinas, Andrew
Sent: Wednesday, 22 June 2022 12:50 PM
To: 'Patrick Bastawrous'
Cc: Riham Gergis; Charles Wiafe
Subject: RE: M12 Motorway West Site Establishment Management Plan (SEMP)
Attachments: M12 West consultation comment sheet May 2022.docx

Hi Patrick,

Thank you for your comments on the SEMP. Please find attached the responses to each of the points raised. If there are any queries, please give me a call.

Regards

Andrew Zvirzdinas
[redacted]

From: Patrick Bastawrous <BastawrousP@liverpool.nsw.gov.au>
Sent: Friday, 17 June 2022 4:52 PM
To: [redacted]
Cc:
Subject: M12 Motorway West Site Establishment Management Plan (SEMP)

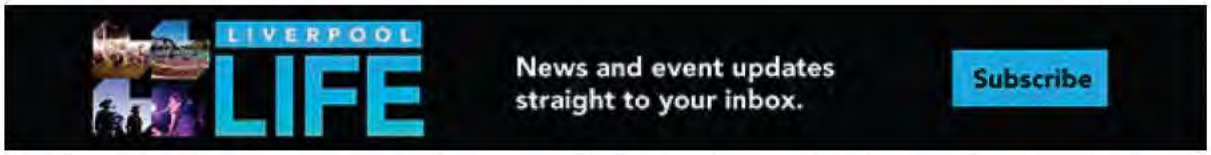
Hi Andrew

Please see attached comments regarding the SEMP on behalf of Liverpool Council.

Let me know if you need any further clarification of the points raised.

Regards

Patrick Bastawrous
Acting Manager - Transport Management
[redacted]



Disclaimer

30 May 2022

Comment on M12 Motorway West draft Construction Site Establishment Management Plan

Name, Industry Group or Organisation: Liverpool City Council
Date:17/06/2022 (Email from Patrick Bastawrous Acting Manager – Transportation Management)

Item number	Section / page reference	Comment / Feedback	CPBGG JV Response	Item closed
4.3 & Table 1-1	Site layout and access & Access Arrangement (column)	Access must be restricted to Left in-Left out	Table 1-1 amended	
4.5	Working hours	An Application is required to allow work between 1:00 pm and 6:00 pm on a Saturday (outside approved time) The application must be submitted a minimum of 10 working days prior to the proposed day. A request on Thursday, 2 days prior to the proposed works on Saturday, will not be approved.	Given the project is a Part 5 EP&A Act approved project Critical State Significant Infrastructure Approval (CSSI-9364) and has an Environmental Protection Licence (EPL #21595), no application for works on a Saturday between 1:00pm and 6:00 pm is required. The project will be conducting works on Saturday in accordance with the EPL condition L5.2 and the SSI-9364 condition E64, both of which allow works to occur on a Saturday between 1 - 6pm as the approved construction hours. Information relating to OOH works will be provided on the project website (https://www.rms.nsw.gov.au/projects/m12-motorway/index.html) Out of hours works will be discussed during Project Interface Meetings.	
Table 5-1	Construction traffic generation	What is the cumulative construction traffic	Construction traffic generation volumes and an assessment of cumulative traffic impacts for all M12 project packages is outlined in the M12 Motorway Amendment	

		generation of M12, WSA and SMWSA and it's impact on Badgerys Ck RD and other Roads. A full assessment is required to demonstrate the above.	Report. This is the document where these numbers have been taken from. Construction traffic generation volumes for the Western Sydney International Airport and the Sydney Metro – Western Sydney Airport are outlined in their respective project CEMPs and Cumulative Impact Plans. Mitigation measures to address cumulative traffic impacts are outlined the M12 Motorway Overarching Construction Traffic and Transport Management Plan and include measures for CPBGG JV to: • Liaise and coordinate with other contractors undertaking these concurrent works which may involve road occupancies • Liaise and facilitate regular meetings with TfNSW, other authorities and relevant parties including meeting at least monthly with TfNSW and Transport Management Centre (TMC) • Liaise with TfNSW and other regulatory authorities (such as TMC), emergency services, Council(s) when planning and implementing traffic management proposals • Develop measures to minimise traffic conflict and congestion that may occur due to the cumulative increase in construction vehicle traffic caused by other developments • Keep records of meetings and making them available to relevant personnel. Meetings may include but are not limited to Traffic Coordination Groups and Traffic and Transport Liaison Groups. Mitigation measures to address cumulative traffic impacts specifically related to the Construction of M12 West will be included in the CPBGGJV M12 West Construction Traffic and Transport Management Plan. Measures to mitigate traffic impacts related to site establishment activities are included in Appendix A of this SEMP. Updates have been made to Section 5.1.2 to reference cumulative impacts.	

Appendix G – Secondary CoA and REMMs

Secondary CoA

CoA No.	Condition Requirements	Document Reference
A34	For the duration of Work until the commencement of operation, or as agreed with the Planning Secretary, the approved ER must:	Section 1.4.1
	(i) Consider any minor amendments to be made to the CEMP, CEMP Sub-plans, Construction Monitoring Programs, Site Establishment Management Plans and Early Works Environmental Management Plan that involve updating or are of an administrative nature and do not increase impacts to nearby sensitive receivers, and ensure they are consistent with the terms of this approval and the documents approved by the Planning Secretary and, if satisfied such amendment is necessary, approve the amendment. This does not include any modifications to the terms of this approval.	
E40	Noise and Vibration Impact Statements (NVIS) must be prepared for any Work that may exceed the noise management levels and vibration criteria specified in Condition E38 at any residence outside the construction hours identified in Condition E34, or where receivers will be highly noise affected. The NVIS must include specific mitigation measures identified through consultation with affected sensitive land user(s) and the mitigation measures must be implemented for the duration of the Work. A copy of the NVIS must be provided to the ER prior to the commencement of the associated Work. The Planning Secretary may request a copy/ies of the NVIS.	Section 6.2.7 Appendix C
E41	Owners and occupiers of properties at risk of exceeding the screening criteria for cosmetic damage must be notified before Work that generates vibration commences in the vicinity of those properties. If the potential exceedance is to occur more than once or extend over a period of 24 hours, owners and occupiers must be provided with a schedule of potential exceedances on a monthly basis for the duration of the potential exceedances, unless otherwise agreed by the owner and occupier. These properties must be identified and considered in the Noise and Vibration CEMP Sub-plan required by Condition C4 and the Communication Strategy required by Condition B1.	Appendix C
E62	The CSSI must be constructed and operated with the objective of minimising light spillage to surrounding properties. All lighting associated with the construction and operation of the CSSI must be consistent with the requirements of Australian Standard 4282-2019 Control of the obtrusive effects of outdoor lighting, relevant Australian Standards in the series AS/NZ 1158 – Lighting for Roads and Public Spaces, and the National Airports Safeguarding Framework (NASF) Guideline E: Managing the Risk of Distractions to Pilots from Lighting in the Vicinity of Airports.	Section 6.2.11
	Additionally, mitigation measures must be provided to manage residual night lighting impacts to protect properties adjoining or adjacent to the CSSI, in consultation with affected landowners.	
E83	Any property access that is physically affected by the CSSI must be reinstated to at least an equivalent standard, in consultation with the landowner or alternative access provided in consultation with the landowner.	Section 4.2.3

CoA No.	Condition Requirements	Document Reference
E93	The Planning Secretary's approval is required before any heavy vehicles used for spoil and fill haulage or concrete deliveries (for the purpose of the CSSI) are driven on local roads within one (1) kilometre of early works, construction and construction ancillary facilities and that are not identified for use by heavy vehicles in the documents listed in Condition A1. The local roads must be identified in the Early Works Environment Management Plan and Traffic Management CEMP Sub-plan.	Section 5.1.2
E94	All requests to the Planning Secretary for approval to use local roads in accordance with Condition E93, must include a traffic and pedestrian impact assessment and be prepared in consultation with the relevant local council(s). The assessment must be undertaken by appropriately qualified and experienced person and must include a swept path analysis if required by the Department. The outcomes and recommendations of the traffic and pedestrian impact assessment must be incorporated into the Site Establishment Management Plan or Traffic Management CEMP Sub-plan as relevant.	Section 5.1.2
E95	Before any local road is used by a heavy vehicle for the purposes of the CSSI, a Road Dilapidation Report must be prepared for the road unless otherwise agreed by the relevant road authority. A copy of the Road Dilapidation Report must be provided to the relevant road authority within three (3) weeks of completion of the survey and at least two (2) weeks before the road is used by heavy vehicles associated with the construction of the CSSI. If damage to roads occurs as a result of the construction of the CSSI, the Proponent must rectify the damage to restore the road to at least the condition it was in pre-construction in consultation with the relevant road authority. Rectification works must be undertaken within three (3) months of the subject road no longer being used for the construction of the CSSI unless an alternative timeframe is agreed to by the relevant road authority.	Section 5.1.2

Secondary REMMs

REMM	Condition Requirements	Document Reference
SWH01	A construction soil and water management plan (CSWMP) will be prepared for the Project. The plan will outline measures to manage soil and water impacts associated with the construction works, including contaminated land. The CSWMP will provide:	CSWMP (Appendix B8 CEMP) Appendix A
	• Measures to manage stockpiles including locations, separation of waste types, sediment controls and stabilisation.	
SWH04	Stockpiles will be managed to minimise the potential for mobilisation and transport of dust and sediment in runoff in accordance with TfNSW *Stockpile Sites Management Guideline* (Roads and Maritime, 2015). This will include:	Appendix A
	• Minimising the number of stockpiles, area used for stockpiles, and time that they are left exposed	
	• Locating stockpiles away from drainage lines, waterways and areas where they may be susceptible to wind erosion	
	• Stabilising stockpiles, establishing appropriate sediment controls and suppressing dust as required.	
AQ02	Dust generation will be minimised during construction where possible. Where practicable, specific measures will include (but not be limited to):	Appendix A
	• Regularly watering exposed and disturbed areas including stockpiles, especially during inclement weather conditions	

REMM	Condition Requirements	Document Reference
	• Adjusting the intensity of activities based on measured and observed dust levels, weather forecasts and the proximity of and direction of the works in relation to the nearest surrounding receivers	
	• Ensuring loads are covered, and any loose materials/debris are removed before vehicles exit the site	
	• Minimising the number of stockpiles and amount of material stockpiled where practicable	
	• Positioning stockpiling areas as far as possible from surrounding receivers, including potentially ecologically sensitive receivers	Section 7 of CAQMP
	• Limiting stockpiling activities during conditions where winds are blowing strongly in the direction(s) from the stockpiling location to nearby receivers.	CAQMP (Appendix B6 CEMP) Section 5.2
AQ03	• Odorous materials identified on site will be excavated in a staged process and exposed areas of odours material will be kept to a minimum to reduce the total emissions from the site where feasible.	Appendix A
W04	Suitable areas will be identified to allow for contingency management of unexpected waste materials, including contaminated materials. Suitable areas will be required to be hardstand or lined areas that are appropriately stabilised and bunded, with sufficient area for stockpile storage.	CWRMP (Appendix B5 CEMP) Appendix A

Appendix H - EIS and Amendment Report assessment of ancillary facility locations

The ancillary facilities identified in the EIS and Amendment Report were assessed in accordance with the Critical SSI Standard Conditions of Approval for linear infrastructure projects.

These standard conditions have been developed to help infrastructure providers understand the types of conditions likely to be applied to State significant projects if they are approved, including conditions related to ancillary facilities.

As discussed in the EIS, when locating ancillary facilities, the following criteria should generally be applied:

a) Located more than 50 m from a waterway unless an erosion and sediment control plan is prepared and implemented so as not to affect water quality in the waterway in accordance with Managing Urban Stormwater series
b) Within or adjacent to land where the critical state significant infrastructure is being carried out
c) With ready access to a road network
d) So as to avoid the need for heavy vehicles to travel on local streets or through residential areas in order to access the facility
e) On level land
f) So as to be in accordance with the Interim Construction Noise Guidelines (DECC, 2009) by 200 metres of the nearest residences (300 metres for a temporary batching plant)
g) So as not to require vegetation clearing beyond the extent of clearing for the Project area
h) So as not to have any impact on heritage items (including areas of archaeological sensitivity) beyond the impacts identified, assessed and approved under other terms of this approval
i) So as not to affect lawful uses of adjacent properties that are being carried out at the date upon which construction or establishment of the facility is to commence
j) To enable operation of the ancillary facility during flood events referred to in Section 7.8 of the EIS and Appendix H of the Amendment Report and to avoid or minimise, to the greatest extent practicable, adverse flood impacts on the surrounding environment and other properties and infrastructure
k) So as to have sufficient area for the storage of raw materials to minimise, to the greatest extent practicable, the number of deliveries required outside standard construction hours.

The results of the assessment of each proposed ancillary facility against the criteria above is summarised in Table H-1.

Table H-1 Ancillary facility assessment

Compound location	Ancillary facility site locations criteria (as detailed in Appendix B)									
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
West										
AF1	N	Y	Y	Y Access via The Northern Road with some residence adjacent	Y	N	Y	Y	Y	Y
AF2	Y	Y	Y	Y Noting there are some residences located adjacent to Elizabeth Drive	Y	N	Y	N McGarvie-Smith Farm impacted	Y	Y
AF3	Y	Y	N Access via AF2 or via construction footprint	Y Noting there are some residences located adjacent to Elizabeth Drive	Y	Y	Y	N McMaster Field Station impacted	Y	Y
AF10	Y	N Currently established AF for The Northern Road upgrade project; located along The Northern Road at Luddenham	Y	Y	Y	N	Y	Y	Y	N
AF11	Y	Y	Y	Y	Y	N	N	N	Y	Y
AF17	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CAF 001	Y Waterways have been assessed and Current ESCs are sufficient for the use of the Ancillary facility	Y	Y	Y	Y	Y	Y	Y	Y	Y
CAF 002	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CAF 003	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Compound location	Ancillary facility site locations criteria (as detailed in Appendix B)									
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
CAF 004	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CAF 005	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CAF 006	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CAF 007	Y Waterways have been assessed and Current ESCs are sufficient for the use of the Ancillary facility	Y	Y	Y	Y	Y	Y	Y	Y	Y
CAF 008	Y Waterways have been assessed and Current ESCs are sufficient for the use of the Ancillary facility	Y	Y	Y	Y	Y	Y	Y	Y	Y
CAF 009	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Appendix I – RMS Noise Calculator Outputs

Construction Noise Estimator

Please nput nformat on nto yellow cells
Please pi k f om drop-down list in orange ells

Project nam	%12 & est
#cenar o nam	' (1) stablis! ment
Receiver address	2785-2782 +! e , ort! ern Road, .˜ dden! am , / & #*^^
# lect area ground type	0ndeveloped green fields 2˜ al areas wit! isolated dwellings3
# lect type of ˚ ackground noise level nput	0ser 4nput

No se area category		R presentat ve No se En˜ ronment	˜ ser ˜nput
RBL or $%5- (ackground level °'(°%/°''	Day		~~
	Evening		~~
	N ght		41
$% &7 +m nut " Noise mangement level °'(°%/°''	Day		~~
	˙ ay °˜ ˜ ! ''		~~
	Evening		~~
	N ght		~~

R presentat ve ' stance °m''	180

#cenar o	#! L $% & °' (°%/°''	˜s t, ere l ne of s ght to receiver)	#, ldin˜ corr ction °'(°%/°''	˙ stance used n calculat on °m''	Contr but on #PL °'(°%/°''
° ompound site establis! ment	109	Yes	`	180	^`

Total SPL L Aeq(15minute) (dBA)	*50*

St ps6
1.) nter project name 2 ell ° ˜3$
#$) nter s enario name 2 ell ° 10)$
6$) nter eceı1er address 2 ell ° 11)$
˜$ / elect area ground t7pe 2 ell ° 12) - water-˜ ndeveloped green fields 2e.g. ˜ al areas wit! isolated dwellings3 o de1eloped settlements 2e.g. ˜ ban and s˜ ˜ ban areas3
^. / ele t type of a kg o˜nd noise le1el inp˜t - Rep entati1e noise en1i onment 2o make ass˜mptions3 o ˜se inp˜t 2w! e e noise monito ing data is a1aila le38
2a) w! ere epresentati1e noise en1i onment is selected - select t! e appropriate noise area ategor7 2 ell ° 16)$+! e works! eet titled 9Representati1e , oise) n1i on$9
p o1ides a n˜m e of e: amples to ! elp sele t the noise a ea ategor7$
23 w! ere ˜ser input is selected - enter t! e meas˜ ed background noise level for eac! time period 2 ells ; 17 to ; 19)$
˙$) nter t! e epresentati1e distan e in ell ° #'$
$ / elect s enario f om t! e drop-down list in ells ' #$
2a3is the e line of sig! t to e ei1e < / ele t from d op down list in ells F#* . Solid a ie an e in the fo m of oad ˜tting, solid onst ˜ tion ! oarding, acousti ˜ tain-timber lapped and apped fen e, s! ipping ontainer- site offi e, et $Please note t! at 1egetation and t ees are not onsidered to be a form of solid bar ier$
˜$ 4dentif7 t! e level above background and/or noise mangement level 2see ows 36 to 41)$
˜$ 4dentif7 and implement standard mitigation meas˜ es w! ere feasible and easonble. 4n l˜de an7 s! ileiding implemented as part of t! e standard mitigation meas˜ es 7 ! anging t! e selection in t! e 9is t! ere line of sight to ecei1er9drop-down list$
10. 4dentif7 and implement feasible and easonable additional mitigation meas˜ es 2see ows 42 to ˜˜3 $
11$Do ˜ment a s˜mma 7 epo t detailing8
(a) p o$e t des iption 2n l˜ding lo ation, d˜ration, ! o˜ s of wo k- onst ˜ tion methodolog7- plant , potentiall7 impa ted re ei1e s, etc$$
23 background noise levels$
2 3noise management le1els $
2d) predi ted noise levels for eac! time period.
2e) sleep dist˜ ban e affected distan e for night works$
2f3mitigation meas˜ es$
2g) team member esponsible for implementing mitigation meas˜ es and managing noise and 1i ation$

2 ote t! at s˜itable noise management levels for ot! er noise-sensiti1e ˜ sinesses not identified in t! e ° onst ˜ tion , oise) stimator s! ould be in1estigated on a project- 7 -

		Residential receiver	*Non-residential receivers*						
			Classroom at schools and other educational institutions	*Hospital wards and operating theatres*	*Place of worship*	*Active recreation*	*Passive recreation*	*Industrial premise*	*Offices, retail outlets*
Noise Management Level (dB(A))	#tandard hours	*59*	++	,+	++	,+	,-	.+	.-
	˙ ay °˜ ˜ ! ''	*54*	++	,+	++	,+	,-	.+	.-
	˜˜ ! P r o' 1	*54*		,+	++	,+	,-	.+	.-
	˜˜ ! P r o' 2	*46*		,+	++			.+	.-
Level above background (dB(A))	#tandard hours	*1*							
	Day °˜˜ ! ''	*1*							
	˜˜ ! P r o' 1	*1*							
	˜˜ ! P r o' 2	*9*							
Level above NML (dB(A))	#tandard hours	-							
	Day °˜˜ ! ''	-							
	˜˜ ! P r o' 1	-							
	˜˜ ! P r o' 2	*4*							
Additional mitigation measures	#tandard ours	-	1	1	1	1	1	1	1
	Day °˜˜ ! ''	-	1	1	1	1	1	1	1
	˜˜ ! P r o' 1	-		1	1	1	1	1	1
	˜˜ ! P r o' 2	*N*		1	1			1	1

%bbr at on	2 easur
N	Notification (letterbox drop or equivalent
SN	Specific notifications
PC	Phone calls
IB	Individual briefings
RO	Respite offer
R1	Respite period 1
R2	Respite period 2
DR	Duration respite
AA	Alternative accommodation
V	Verification

Construction Noise Estimator

Please nput nformat on nto yellow cells
Please pi k f om drop-down list in orange ells

Project nam	%12 & est
#cenar o nam	' (2) stablis! ment
Receiver address	1953-2109) li>abet! ' ; ¨i1e ?adger79s ° eek
# lect area ground type	0ndeveloped green fields 2¨ al areas wit! isolated dwellings3
# lect type of ° ackground noise level nput	0ser 4nput

No se area category		R presentat ve No se En¨ ronment	¨ ser ¨nput
RBL or $%5- (ackground level °'(°%"'	Day		¨#
	Evening		6¨
	N ght		66
$% &7 +m nut " Noise mangement level °'(°%"'	Day		¨#
	˙ ay °¨ ¨ ! "		¨*
	Evening		¨¨
	N ght		6¨

R presentat ve ' stance °m"	184

#cenar o	#! L $% & °' (°%"'	¨s t, ere l ne of s ght to receiver)	#, ldin¨ corr ction °'(°%"'	˙ stance used n calculat on °m"	Contr but on #PL °'(°%"'
° ompound site establis! ment	109	Yes	.	184	¨¨

Total SPL L Aeq(15minute) (dBA)	49

St ps6

1.) nter project name 2 ell ° ¨3$
#$) nter s enario name 2 ell ° 10)$
6$) nter eceı1er address 2 ell ° 11)$
¨$ / elect area ground t7pe 2 ell ° 12) - water- ¨ndeveloped green fields 2e.g. ¨ al areas wit! isolated dwellings3 o de1eloped settlements 2e.g. ¨ ban and s¨ ¨ ban areas3
¨ . / ele t type of a kg o¨nd noise le1el inp¨t - Rep entati1e noise en1i onment 2lo make ass¨mptions3 o ¨se inp¨t 2w! e e noise monito ing data is a1aila le38
2a) w! ere epresentati1e noise en1i onment is selected - select t! e appropriate noise area ategor7 2 ell ° 16)$+! e works! eet titled 9Representati1e , oise) n1i on$9
p o1ides a n¨m e of e: amples to ! elp sele t the noise a ea ategor7$
23 w! ere ¨ser input is selected - enter t! e meas¨ ed background noise level for eac! time period 2 ells ; 17 to ; 19)$
˙$) nter t! e epresentati1e distan e in ell ° #¨$
$ / elect s enario f om t! e drop-down list in ells ' #$
2a3is the e line of sig! t to e ei1e < / ele t from d op down list in ells F#* . Solid a ie an e in the fo m of oad ¨tting, solid onst ¨ tion ! oarding, acousti ¨ tain- timber lapped and apped fen e, s! ipping ontainer- site offi e, et $Please note t! at 1egetation and t ees are not onsidered to be a form of solid bar ier$
¨$ 4dentif7 t! e level above background and/or noise mangement level 2see ows 36 to 41)$
¨$ 4dentif7 and implement standard mitigation meas¨ es w! ere feasible and easonble. 4n l¨de an7 s! ileiding implemented as part of t! e standard mitigation meas¨ es 7 ! anging t! e selection in t! e 9s t! ere line of sight to ecei1er9drop-down list$
10. 4dentif7 and implement feasible and easonable additional mitigation meas¨ es 2see ows 42 to ¨¨3 $
11$Do ¨ment a s¨mma 7 epo t detailing8
(a) p o$e t des iption 2n l¨ding lo ation, d¨ration, ! o¨ s of wo k- onst ¨ tion methodolog7- plant , potentiall7 impa ted re ei1e s, etc$$
23 background noise levels$
2 3noise management le1els $
2t) predi ted noise levels for eac! time period.
2e) sleep dist¨ ban e affected distan e for night works$
23mitigation meas¨ es$
2g) team member esponsible for implementing mitigation meas¨ es and managing noise and 1i ation$

2 ote t! at s¨itable noise management levels for ot! er noise-sensiti1e ¨ sinesses not identified in t! e ° onst ¨ tion , oise) stimator s! ould be in1estigated on a project- 7 -

		Residential receiver	*Non-residential receivers*						
			Classroom at schools and other educational institutions	*Hospital wards and operating theatres*	*Place of worship*	*Active recreation*	*Passive recreation*	*Industrial premise*	*Offices, retail outlets*
Noise Management Level (dB(A))	#tandard hours	*52*	++	,+	++	,+	,-	.+	.-
	˙ ay °¨ ¨ ! "	*47*	++	,+	++	,+	,-	.+	.-
	¨¨ ! P r o' 1	*44*		,+	++	,+	,-	.+	.-
	¨¨ ! P r o' 2	*38*		,+	++			.+	.-
Level above background (dB(A))	#tandard hours	*7*							
	Day °¨ ! "	*7*							
	¨¨ ! P r o' 1	*10*							
	¨¨ ! P r o' 2	*16*							
Level above NML (dB(A))	#tandard hours	-							
	Day °¨ ! "	*2*							
	¨¨ ! P r o' 1	*5*							
	¨¨ ! P r o' 2	*11*							
Additional mitigation measures	#tandard ours	-	1	1	1	1	1	1	1
	Day °¨ ! "	-	1	1	1	1	1	1	1
	¨¨ ! P r o' 1	*N, R1, DR*		1	1	1	1	1	1
	¨¨ ! P r o' 2	*V, N, R2, DR*		1	1			1	1

%bbr at on	2 easur
N	Notification (letterbox drop or equivalent
SN	Specific notifications
PC	Phone calls
IB	Individual briefings
RO	Respite offer
R1	Respite period 1
R2	Respite period 2
DR	Duration respite
AA	Alternative accommodation
V	Verification

Construction Noise Estimator

Please nput nformat on nto yellow cells
Please pi k f om drop-down list in orange ells

Project nam	%12 & est
#cenar o nam	' (3) stablis! ment
Receiver address	1953-2109) li>abet! ' ; ¨i1e ?adger79s ° eek
# lect area ground type	0ndeveloped green fields 2¨ al areas wit! isolated dwellings3
# lect type of ° ackground noise level nput	0ser 4nput

No se area category		R presentat ve No se En¨ ronment	¨ ser ¨nput
RBL or $%5- (ackground level °'(°%/°'"	Day		6¨
	Evening		¨
	N ght		6¨
$% &7 +m nut " Noise mangement level °'(°%/°'"	Day		¨¨
	' ay °¨ ¨ ! "		¨¨
	Evening		¨¨
	N ght		6¨

R presentat ve ' stance °m"	¨'"$ ^

#cenar o	#! L $% & °' (°%/°'"	¨s t¸ ere l ne of s ght to receiver)	#¸ ldin¨ corr ction °'(°%/°'"	¨ stance used n calculat on °m"	Contr but on #PL °'(°%/°'"
° ompound site establis! ment	109	Yes	¸	'"$ ^	6#

Total SPL L Aeq(15minute) (dBA)	*32*

		Residential receiver	*Non-residential receivers*						
			Classroom at schools and other educational institutions	*Hospital wards and operating theatres*	*Place of worship*	*Active recreation*	*Passive recreation*	*Industrial premise*	*Offices, retail outlets*
Noise Management Level (dB(A))	#tandard hours	*49*	++	,+	++	,+	,-	.+	.-
	' ay °¨ ¨ ! "	*44*	++	,+	++	,+	,-	.+	.-
	¨¨ ! P r o' 1	*45*		,+	++	,+	,-	.+	.-
	¨¨ ! P r o' 2	*39*		,+	++			.+	.-
Level above background (dB(A))	#tandard hours								
	Day °¨ ! "								
	¨¨ ! P r o' 1								
	¨¨ ! P r o' 2								
Level above NML (dB(A))	#tandard hours								
	Day °¨ ! "								
	¨¨ ! P r o' 1								
	¨¨ ! P r o' 2								
Additional mitigation measures	#tandard ours	-	1	1	1	1	1	1	1
	Day °¨ ! "	-	1	1	1	1	1	1	1
	¨¨ ! P r o' 1	-		1	1	1	1	1	1
	¨¨ ! P r o' 2	-		1	1			1	1

%bbr at on	2 easur
N	Notification (letterbox drop or equivalent
SN	Specific notifications
PC	Phone calls
IB	Individual briefings
RO	Respite offer
R1	Respite period 1
R2	Respite period 2
DR	Duration respite
AA	Alternative accommodation
V	Verification

St ps6

1.) nter project name 2 ell ° ¨3$
#$) nter s enario name 2 ell ° 10)$
6$) nter eceí1er address 2 ell ° 11)$
¨$ / elect area ground t7pe 2 ell ° 12) - water-¨ndeveloped green fields 2e.g. ¨ al areas wit! isolated dwellings3 o de1eloped settlements 2e.g. ¨ ban and s¨ ¨ ban areas3
^ . / ele t type of a kg o¨nd noise le1el inp¨t - Rep entati1e noise en1i onment 2o make ass¨mptions3 o ¨se inp¨t 2w! e e noise monito ing data is a1aila le38
2a) w! ere epresentati1e noise en1i onment is selected - select t! e appropriate noise area ategor7 2 ell ° 16)$+! e works! eet titled 9Representati1e , oise) n1i on$9
p o1ides a n¨m e of e: amples to ! elp sele t the noise a ea ategor7$
23 w! ere ¨ser input is selected - enter t! e meas¨ ed background noise level for eac! time period 2 ells ; 17 to ; 19)$
'$) nter t! e epresentati1e distan e in ell ° #'$
$ / elect s enario f om t! e drop-down list in ells ' #$
2a3is the e line of sig! t to e ei1e < / ele t from d op down list in ells F#* . Solid a ie an e in the fo m of oad ¨tting, solid onst ¨ tion ! oarding, acousti ¨ tain-timber lapped and apped fen e, s! ipping ontainer- site offi e, et $Please note t! at 1egetation and t ees are not onsidered to be a form of solid bar ier$
¨$ 4dentif7 t! e level above background and/or noise mangement level 2see ows 36 to 41)$
¨$ 4dentif7 and implement standard mitigation meas¨ es w! ere feasible and easonble. 4n l¨de an7 s! ileiding implemented as part of t! e standard mitigation meas¨ es 7 ! anging t! e selection in t! e 9s t! ere line of sight to ecei1er9drop-down list$
10. 4dentif7 and implement feasible and easonable additional mitigation meas¨ es 2see ows 42 to ¨¨3 $
11$Do ¨ment a s¨mma 7 epo t detailing8
(a) p o$e t des iption 2n l¨ding lo ation, d¨ration, ! o¨ s of wo k- onst ¨ tion methodolog7- plant , potentiall7 impa ted re ei1e s, etc$$
23 background noise levels$
2 3noise management le1els $
2i) predi ted noise levels for eac! time period.
2e) sleep dist¨ ban e affected distan e for night works$
23mitigation meas¨ es$
2g) team member esponsible for implementing mitigation meas¨ es and managing noise and 1i ation$

2 ote t! at s¨itable noise management levels for ot! er noise-sensiti1e ¨ sinesses not identified in t! e ° onst ¨ tion , oise) stimator s! ould be in1estigated on a project- 7 -

Construction Noise Estimator

St ps6

1.) nter project name 2 ell ° ˜3$
#$) nter s enario name 2 ell ° 10)$
6$) nter eceı˙er address 2 ell ° 11)$
˜$ / elect area ground t7pe 2 ell ° 12) - water-˜ndeveloped green fields 2e.g. ˜ al areas wit! isolated dwellings3 o de1eloped settlements 2e.g. ˜ ban and s˜ ˜ ban areas3
ˆ. / ele t type of a kg o˜nd noise le1el inp˜t - Rep entati1e noise en1i onment 2o make ass˜mptions3 o ˜se inp˜t 2w! e e noise monito ing data is a1aila le38
2a) w! ere epresentati1e noise en1i onment is selected - select t! e appropriate noise area ategor7 2 ell ° 16)$+! e works! eet titled 9Representati1e , oise) n1i on$9
p o1ides a n˜m e of e: amples to ! elp sele t the noise a ea ategor7$
23 w! ere ˜ser input is selected - enter t! e meas˜ ed background noise level for eac! time period 2 ells ; 17 to ; 19)$
ˇ$) nter t! e epresentati1e distan e in ell ° #ˇ$
$ / elect s enario f om t! e drop-down list in ells ' #$
2a3is the e line of sig! t to e ei1e < / ele t from d op down list in ells F#* . Solid a ie an e in the fo m of oad ˜tting, solid onst ˜ tion ! oarding, acousti ˜ tain-timber lapped and apped fen e, s! ipping ontainer- site offi e, et $Please note t! at 1egetation and t ees are not onsidered to be a form of solid bar ier$
˜$ 4dentif7 t! e level above background and/or noise mangement level 2see ows 36 to 41)$
˜$ 4dentif7 and implement standard mitigation meas˜ es w! ere feasible and easonble. 4h l˜de an7 s! ileiding implemented as part of t! e standard mitigation meas˜ es 7 ! anging t! e selection in t! e 9is t! ere line of sight to ecei1er9drop-down list$
10. 4dentif7 and implement feasible and easonable additional mitigation meas˜ es 2see ows 42 to ˜˜3 $
11$Do ˜ment a s˜mma 7 epo t detailing8
(a) p o$e t des iption 2n l˜ding lo ation, d˜ration, ! o˜ s of wo k- onst ˜ tion methodolog7- plant , potentiall7 impa ted re ei1e s, etc$$
23 background noise levels$
2 3noise management le1els $
2d) predi ted noise levels for eac! time period.
2e) sleep dist˜ ban e affected distan e for night works$
2f3mitigation meas˜ es$
2g) team member esponsible for implementing mitigation meas˜ es and managing noise and 1i ation$

2 ote t! at s˜itable noise management levels for ot! er noise-sensiti1e ˜ sinesses not identified in t! e ° onst ˜ tion , oise) stimator s! ould be in1estigated on a project- 7 -

Please nput nformat on nto yellow cells
Please pi k f om drop-down list in orange ells

Project nam	%12 & est
#cenar o nam	' (11) stablis! ment
Receiver address	777-819 .˜ dden! am Road, .˜ dden! am
# lect area ground type	0ndeveloped green fields 2˜ al areas wit! isolated dwellings3
# lect type of ˚ ackground noise level nput	0ser 4nput

No se area category		R presentat ve No se En˜ ronment	˜ ser ˜nput
RBL or $%5- (ackground level °"(°%/°""	Day		˜.
	Evening		6ˇ
	N ght		31
$% &7 +m nut " Noise mangement level °"(°%/°""	Day		ˆ.
	˙ ay °˜ ˜ ! "		˜ˆ
	Evening		41
	N ght		6ˇ

R presentat ve ' stance °m"	213

#cenar o	#! L $% & °" (°%/°""	˜s t. ere l ne of s ght to receiver)	#. ldin˜ corr ction °(°%/°""	˙ stance used n calculat on °m"	Contr but on #PL °"(°%/°""
° ompound site establis! ment	109	Yes	.	213	˜*

Total SPL L Aeq(15minute) (dBA)	***47***

		Residential receiver	*Non-residential receivers*						
			Classroom at schools and other educational institutions	*Hospital wards and operating theatres*	*Place of worship*	*Active recreation*	*Passive recreation*	*Industrial premise*	*Offices, retail outlets*
Noise Management Level (dB(A))	#tandard hours	*50*	++	,+	++	,+	,-	.+	.-
	˙ ay °˜ ˜ ! "	*45*	++	,+	++	,+	,-	.+	.-
	˜˜ ! P r o' 1	*41*		,+	++	,+	,-	.+	.-
	˜˜ ! P r o' 2	*36*		,+	++			.+	.-
Level above background (dB(A))	#tandard hours	*7*							
	Day °˜ ! "	*7*							
	˜˜ ! P r o' 1	*11*							
	˜˜ ! P r o' 2	*16*							
Level above NML (dB(A))	#tandard hours	-							
	Day °˜ ! "	*2*							
	˜˜ ! P r o' 1	*6*							
	˜˜ ! P r o' 2	*11*							
Additional mitigation measures	#tandard ours	-	1	1	1	1	1	1	1
	Day °˜ ! "	-	1	1	1	1	1	1	1
	˜˜ ! P r o' 1	*N, R1, DR*		1	1	1	1	1	1
	˜˜ ! P r o' 2	*V, N, R2, DR*		1	1			1	1

%bbr at on	2 easur
N	Notification (letterbox drop or equivalent
SN	Specific notifications
PC	Phone calls
IB	Individual briefings
RO	Respite offer
R1	Respite period 1
R2	Respite period 2
DR	Duration respite
AA	Alternative accommodation
V	Verification

Construction Noise Estimator

Please nput nformat on nto yellow cells
Please pi k f om drop-down list in orange   ells

Project nam	%12 & est
#cenar o nam	' (1) stablis! ment
Receiver address	2785-2782 +! e , ort! ern Road, .˜ dden! am , / & #*˜ˆ
# lect area ground type	0ndeveloped green fields 2˜ al areas wit! isolated dwellings3
# lect type of * ackground noise level nput	0ser 4nput

		R presentat ve No se En˜ ronment	˜ ser ˆnput
No se area category			
RBL or $%5 (ackground level °(°%'"	Day		˜˜
	Evening		˜˜
	N ght		41
$% &7 +m nut " Noise mangement level °(°%'"	Day		ˆ˜
	˙ ay °˜ ˜ ! "		ˆ˜
	Evening		ˆ˜
	N ght		˜˙

R presentat ve ' stance °m"	180

#cenar o	#! L $% &° (°%'"	ˆs t˛ ere l ne of s ght to receiver)	#˛ ldin˝ corr ction °(°%'"	˙ stance used n calculat on °m"	Contr but on #PL °(°%'"
° ompound operation	104	Yes	˛	180	˜ˆ

Total SPL L Aeq(15minute) (dBA)	***45***

			Non-residential receivers						
		Residential receiver	*Classroom at schools and other educational institutions*	*Hospital wards and operating theatres*	*Place of worship*	*Active recreation*	*Passive recreation*	*Industrial premise*	*Offices, retail outlets*
Noise Management Level (dB(A))	#tandard hours	*59*	++	,+	++	,+	,-	.+	.-
	˙ ay °˜ ˜ ! "	*54*	++	,+	++	,+	,-	.+	.-
	˜˜ ! P ro' 1	*54*		,+	++	,+	,-	.+	.-
	˜˜ ! P ro' 2	*46*		,+	++			.+	.-
Level above background (dB(A))	#tandard hours								
	Day °˜˜ ! "								
	˜˜ ! P ro' 1								
	˜˜ ! P ro' 2	*4*							
Level above NML (dB(A))	#tandard hours								
	Day °˜˜ ! "								
	˜˜ ! P ro' 1								
	˜˜ ! P ro' 2								
Additional mitigation measures	#tandard ours	-	1	1	1	1	1	1	1
	Day °˜˜ ! "	-	1	1	1	1	1	1	1
	˜˜ ! P ro' 1	-		1	1	1	1	1	1
	˜˜ ! P ro' 2	-		1	1			1	1

%bbr˘ at on	2 easur
N	Notification (letterbox drop or equivalent
SN	Specific notifications
PC	Phone calls
IB	Individual briefings
RO	Respite offer
R1	Respite period 1
R2	Respite period 2
DR	Duration respite
AA	Alternative accommodation
V	Verification

St ps6

1.) nter project name 2 ell ° ˘3$
#$) nter s enario name 2 ell ° 10)$
6$) nter ecei1er address 2 ell ° 11)$
˘$ / elect area ground t7pe 2 ell ° 12) - water- ˜ndeveloped green fields 2e.g. ˜ al areas wit! isolated dwellings3 o de1eloped settlements 2e.g. ˜ ban and s˜ ˜ ban areas3
ˆ. / ele t type of a kg o˜nd noise le1el inp˜t - Rep entati1e noise en1i onment 2to make ass˜mptions3 o ˜se inp˜t 2w! e e noise monito ing data is a1aila le38
2a) w! ere epresentati1e noise en1i onment is selected - select t! e appropriate noise area ategor7 2 ell ° 16)$+! e works! eet titled 9Representati1e , oise) n1i on$9 p o1ides a n˜m e of e: amples to ! elp sele t the noise a ea ategor7$
23 w! ere ˜ser input is selected - enter t! e meas˜ ed background noise level for eac! time period 2 ells ; 17 to ; 19)$
˙$) nter t! e epresentati1e distan e in ell ° #˘$
$ / elect s enario f om t! e drop-down list in ells ' #$
2a3is the e line of sig! t to e ei1e < / ele t from d op down list in ells F#*. Solid a ie an e in the fo m of oad ˜tting, solid onst ˜ tion ! oarding, acousti ˜ tain- timber lapped and apped fen e, s! ipping ontainer- site offi e, et $Please note t! at 1egetation and t ees are not onsidered to be a form of solid bar ier$
˝$ 4dentif7 t! e level above background and/or noise mangement level 2see ows 36 to 41)$
˘$ 4dentif7 and implement standard mitigation meas˜ es w! ere feasible and easonble. 4n l˜de an7 s! ileiding implemented as part of t! e standard mitigation meas˜ es 7 ! anging t! e selection in t! e 9s t! ere line of sight to ecei1er9drop-down list$
10. 4dentif7 and implement feasible and easonable additional mitigation meas˜ es 2see ows 42 to ˘˘3 $
11$Do ˜ment a s˜mma 7 epo t detailing8
(a) p o5e t des iption 2n l˜ding lo ation, d˜ration, ! o˜ s of wo k- onst ˜ tion methodolog7- plant , potentiall7 impa ted re ei1e s, etc$$
23 background noise levels$
2 3noise management le1els $
2d) predi ted noise levels for eac! time period.
2e) sleep dist˜ ban e affected distan e for night works$
2f3mitigation meas˜ es$
2g) team member esponsible for implementing mitigation meas˜ es and managing noise and 1i ation$

2, ote t! at s˜itable noise management levels for ot! er noise-sensiti1e ˜ sinesses not identified in t! e ° onst ˜ tion , oise) stimator s! ould be in1estigated on a project- 7 -

Construction Noise Estimator

St ps6

1.) nter project name 2 ell ° ˜3$
#$) nter s enario name 2 ell ° 10)$
6$) nter eceı˙er address 2 ell ° 11)$
˜$ / elect area ground t7pe 2 ell ° 12) - water-˜ndeveloped green fields 2e.g. ˜ al areas wit! isolated dwellings3 o de1eloped settlements 2e.g. ˜ ban and s˜ ˜ ban areas3
ˆ. / ele t type of a kg o˜nd noise le1el inp˜t - Rep entati1e noise en1i onment 2o make ass˜mptions3 o ˜se inp˜t 2w! e e noise monito ing data is a1aila le38
2a) w! ere epresentati1e noise en1i onment is selected - select t! e appropriate noise area ategor7 2 ell ° 16)$+! e works! eet titled 9Representati1e , oise) n1i on$9
p o1ides a n˜m e of e: amples to ! elp sele t the noise a ea ategor7$
23 w! ere ˜ser input is selected - enter t! e meas˜ ed background noise level for eac! time period 2 ells ; 17 to ; 19)$
ˇ$) nter t! e epresentati1e distan e in ell ° #ˇ$
$ / elect s enario f om t! e drop-down list in ells ' #$
2a3is the e line of sig! t to e ei1e < / ele t from d op down list in ells F#* . Solid a ie an e in the fo m of oad ˜tting, solid onst ˜ tion ! oarding, acousti ˜ tain-timber lapped and apped fen e, s! ipping ontainer- site offi e, et $Please note t! at 1egetation and t ees are not onsidered to be a form of solid bar ier$
˜$ 4dentif7 t! e level above background and/or noise mangement level 2see ows 36 to 41)$
˜$ 4dentif7 and implement standard mitigation meas˜ es w! ere feasible and easonble. 4n I˙de an7 s! ileiding implemented as part of t! e standard mitigation meas˜ es 7 ! anging t! e selection in t! e 9is t! ere line of sight to ecei1er9drop-down list$
10. 4dentif7 and implement feasible and easonable additional mitigation meas˜ es 2see ows 42 to ˜˜3 $
11$Do ˜ment a s˜mma 7 epo t detailing8
(a) p o$e t des iption 2n I˙ding lo ation, d˜ration, ! o˜ s of wo k- onst ˜ tion methodolog7- plant , potentiall7 impa ted re ei1e s, etc$$
23 background noise levels$
2 3noise management le1els $
2ı) predi ted noise levels for eac! time period.
2e) sleep dist˜ ban e affected distan e for night works$
2ı3mitigation meas˜ es$
2g) team member esponsible for implementing mitigation meas˜ es and managing noise and 1i ation$

2 ote t! at s˜itable noise management levels for ot! er noise-sensiti1e ˜ sinesses not identified in t! e ° onst ˜ tion , oise) stimator s! ould be in1estigated on a project- 7 -

Please nput nformat on nto yellow cells
Please pi k f om drop-down list in orange ells

Project nam	%12 & est
#cenar o nam	' (2) stablis! ment
Receiver address	1953-2109) li>abet! ' ; ˙i1e ?adger79s ° eek
# lect area ground type	0ndeveloped green fields 2˜ al areas wit! isolated dwellings3
# lect type of ˚ ackground noise level nput	0ser 4nput

No se area category		R presentat ve No se En˜ ronment	˜ ser ˜nput
RBL or $%5- (ackground level °'(°%/°"	Day		˜#
	Evening		6˜
	N ght		66
$% &7 +m nut " Noise mangement level °'(°%/°"	Day		˜#
	˙ ay °˜ ˜ ! "		˜*
	Evening		˜˜
	N ght		6˜

R presentat ve ' stance °m"	184

#cenar o	#! L $% & °' (°%/°"	˜s t˛ ere l ne of s ght to receiver)	#˛ ldin˜ corr ction °'(°%/°"	˙ stance used n calculat on °m"	Contr but on #PL °'(°%/°"
° ompound operation	104	Yes	˛	184	˜˜

Total SPL L Aeq(15minute) (dBA)	*44*

		Residential receiver	*Non-residential receivers*						
			Classroom at schools and other educational institutions	*Hospital wards and operating theatres*	*Place of worship*	*Active recreation*	*Passive recreation*	*Industrial premise*	*Offices, retail outlets*
Noise Management Level (dB(A))	#tandard hours	*52*	++	,+	++	,+	,-	.+	.-
	˙ ay °˜ ˜ ! "	*47*	++	,+	++	,+	,-	.+	.-
	˜˜ ! P r o' 1	*44*		,+	++	,+	,-	.+	.-
	˜˜ ! P r o' 2	*38*		,+	++			.+	.-
Level above background (dB(A))	#tandard hours	*2*							
	Day °˜˜ ! "	*2*							
	˜˜ ! P r o' 1	*5*							
	˜˜ ! P r o' 2	*11*							
Level above NML (dB(A))	#tandard hours	-							
	Day °˜˜ ! "	-							
	˜˜ ! P r o' 1	*0*							
	˜˜ ! P r o' 2	*6*							
Additional mitigation measures	#tandard ours	-	1	1	1	1	1	1	1
	Day °˜˜ ! "	-	1	1	1	1	1	1	1
	˜˜ ! P r o' 1	-		1	1	1	1	1	1
	˜˜ ! P r o' 2	*V, N, R2, DR*		1	1			1	1

%bbr at on	2 easur
N	Notification (letterbox drop or equivalent
SN	Specific notifications
PC	Phone calls
IB	Individual briefings
RO	Respite offer
R1	Respite period 1
R2	Respite period 2
DR	Duration respite
AA	Alternative accommodation
V	Verification

Construction Noise Estimator

Please nput nformat on nto yellow cells
Please pi k f om drop-down list in orange ells

Project nam	%12 & est
#cenar o nam	' (3) stablis! ment
Receiver address	1953-2109) li>abet! ' ; ¨i1e ?adger79s ° eek
# lect area ground type	0ndeveloped green fields 2¨ al areas wit! isolated dwellings3
# lect type of ° ackground noise level nput	0ser 4nput

No se area category		R presentat ve No se En¨ ronment	¨ ser ¨nput
RBL or $%5- (ackground level °"(°%""	Day		6¨
	Evening		¨
	N ght		6¨
$% &7 +m nut " Noise mangement level °"(°%""	Day		¨¨
	' ay °¨ ¨ ! "		¨¨
	Evening		¨¨
	N ght		6¨

R presentat ve ' stance °m"	¨""$ ^

#cenar o	#! L $% & °" (°%""	¨s t¸ ere l ne of s ght to receiver)	#¸ ldin¨ corr ction °"(°%""	¨ stance used n calculat on °m"	Contr but on #PL °"(°%""
° ompound operation	104	Yes	¸	¨""$ ^	#*

Total SPL L Aeq(15minute) (dBA)	27

		Residential receiver	Non-residential receivers						
			Classroom at schools and other educational institutions	Hospital wards and operating theatres	Place of worship	Active recreation	Passive recreation	Industrial premise	Offices, retail outlets
Noise Management Level (dB(A))	#tandard hours	49	++	,+	++	,+	,-	.+	.-
	' ay °¨ ¨ ! "	44	++	,+	++	,+	,-	.+	.-
	¨¨ ! P r o' 1	45		,+	++	,+	,-	.+	.-
	¨¨ ! P r o' 2	39		,+	++			.+	.-
Level above background (dB(A))	#tandard hours	¨¨							
	Day °¨¨ ! "	¨¨							
	¨¨ ! P r o' 1	¨¨							
	¨¨ ! P r o' 2	¨¨							
Level above NML (dB(A))	#tandard hours	¨¨							
	Day °¨¨ ! "	¨¨							
	¨¨ ! P r o' 1	¨¨							
	¨¨ ! P r o' 2	¨¨							
Additional mitigation measures	#tandard ours	-	1	1	1	1	1	1	1
	Day °¨¨ ! "	-	1	1	1	1	1	1	1
	¨¨ ! P r o' 1	-		1	1	1	1	1	1
	¨¨ ! P r o' 2	-		1	1			1	1

%bbr at on	2 easur
N	Notification (letterbox drop or equivalent
SN	Specific notifications
PC	Phone calls
IB	Individual briefings
RO	Respite offer
R1	Respite period 1
R2	Respite period 2
DR	Duration respite
AA	Alternative accommodation
V	Verification

St ps6

1.) nter project name 2 ell ° ¨3$
#$) nter s enario name 2 ell ° 10)$
6$) nter eceí1er address 2 ell ° 11)$
¨$ / elect area ground t7pe 2 ell ° 12) - water-¨ndeveloped green fields 2e.g. ¨ al areas wit! isolated dwellings3 o de1eloped settlements 2e.g. ¨ ban and s¨ ¨ ban areas3
^ . / ele t type of a kg o¨nd noise le1el inp¨t - Rep entati1e noise en1i onment 2o make ass¨mptions3 o ¨se inp¨t 2w! e e noise monito ing data is a1aila le38
2a) w! ere epresentati1e noise en1i onment is selected - select t! e appropriate noise area ategor7 2 ell ° 16)$+! e works! eet titled 9Representati1e , oise) n1i on$9
p o1ides a n¨m e of e: amples to ! elp sele t the noise a ea ategor7$
23 w! ere ¨ser input is selected - enter t! e meas¨ ed background noise level for eac! time period 2 ells ; 17 to ; 19)$
˙$) nter t! e epresentati1e distan e in ell ° #¨$
$ / elect s enario f om t! e drop-down list in ells ' #$
2a3is the e line of sig! t to e ei1e < / ele t from d op down list in ells F#* . Solid a ie an e in the fo m of oad ¨tting, solid onst ¨ tion ! oarding, acousti ¨ tain-timber lapped and apped fen e, s! ipping ontainer- site offi e, et $Please note t! at 1egetation and t ees are not onsidered to be a form of solid bar ier$
¨$ 4dentif7 t! e level above background and/or noise mangement level 2see ows 36 to 41)$
¨$ 4dentif7 and implement standard mitigation meas¨ es w! ere feasible and easonble. 4n l¨de an7 s! ileiding implemented as part of t! e standard mitigation meas¨ es 7 ! anging t! e selection in t! e 9s t! ere line of sight to ecei1er9drop-down list$
10. 4dentif7 and implement feasible and easonable additional mitigation meas¨ es 2see ows 42 to ¨¨3 $
11$Do ¨ment a s¨mma 7 epo t detailing8
(a) p o$e t des iption 2n l¨ding lo ation, d¨ration, ! o¨ s of wo k- onst ¨ tion methodolog7- plant , potentiall7 impa ted re ei1e s, etc$$
23 background noise levels$
2 3noise management le1els $
2t) predi ted noise levels for eac! time period.
2e) sleep dist¨ ban e affected distan e for night works$
23mitigation meas¨ es$
2g) team member esponsible for implementing mitigation meas¨ es and managing noise and 1i ation$

2 ote t! at s¨itable noise management levels for ot! er noise-sensiti1e ¨ sinesses not identified in t! e ° onst ¨ tion , oise) stimator s! ould be in1estigated on a project- 7 -

Construction Noise Estimator

Please nput nformat on nto yellow cells
Please pi k f om drop-down list in orange ells

Project nam	%12 & est
#cenar o nam	' (10 @peration
Receiver address	2785-2782 +! e , ort! ern Road, .˜ dden! am , / & #*˜˜
# lect area ground type	0ndeveloped green fields 2˜ al areas wit! isolated dwellings3
# lect type of ackground noise level nput	0ser 4nput

No se area category		R presentat ve No se En˜ ronment	˜ ser ˜nput
RBL or $%5- (ackground level °"(°%/°"'	Day		˜˜
	Evening		˜˜
	N ght		41
$% &7 +m nut " Noise mangement level °"(°%/°"'	Day		˜˜
	' ay °˜ ˜ ! "		˜˜
	Evening		˜˜
	N ght		˜˜

R presentat ve ' stance °m"	145

#cenar o	#! L $% & °" (°%/°"'	˜s t, ere l ne of s ght to receiver)	#, ldin˜ corr ction °"(°%/°"'	' stance used n calculat on °m"	Contr but on #PL °"(°%/°"'
° ompound operation	104	Yes	.	145	˜*

Total SPL L Aeq(15minute) (dBA)	*47*

		Residential receiver	*Non-residential receivers*						
			Classroom at schools and other educational institutions	*Hospital wards and operating theatres*	*Place of worship*	*Active recreation*	*Passive recreation*	*Industrial premise*	*Offices, retail outlets*
Noise Management Level (dB(A))	#tandard hours	*59*	++	,+	++	,+	,-	.+	.-
	' ay °˜ ˜ ! "	*54*	++	,+	++	,+	,-	.+	.-
	˜˜ ! P r o' 1	*54*		,+	++	,+	,-	.+	.-
	˜˜ ! P r o' 2	*46*		,+	++			.+	.-
Level above background (dB(A))	#tandard hours								
	Day °˜˜ ! "								
	˜˜ ! P r o' 1								
	˜˜ ! P r o' 2	6							
Level above NML (dB(A))	#tandard hours								
	Day °˜˜ ! "								
	˜˜ ! P r o' 1								
	˜˜ ! P r o' 2	*1*							
Additional mitigation measures	#tandard ours	-	1	1	1	1	1	1	1
	Day °˜˜ ! "	-	1	1	1	1	1	1	1
	˜˜ ! P r o' 1	-		1	1	1	1	1	1
	˜˜ ! P r o' 2	*N*		1	1			1	1

%bbr at on	2 easur
N	Notification (letterbox drop or equivalent
SN	Specific notifications
PC	Phone calls
IB	Individual briefings
RO	Respite offer
R1	Respite period 1
R2	Respite period 2
DR	Duration respite
AA	Alternative accommodation
V	Verification

St ps6

1.) nter project name 2 ell ° ˜3$
#$) nter s enario name 2 ell ° 10)$
6$) nter eceí1er address 2 ell ° 11)$
˜$ / elect area ground t7pe 2 ell ° 12) - water-˜ndeveloped green fields 2e.g. ˜ al areas wit! isolated dwellings3 o de1eloped settlements 2e.g. ˜ ban and s˜ ˜ ban areas3
ˆ. / ele t type of a kg o˜nd noise le1el inp˜t - Rep entati1e noise en1i onment 2o make ass˜mptions3 o ˜se inp˜t 2w! e e noise monito ing data is a1aila le38
2a) w! ere epresentati1e noise en1i onment is selected - select t! e appropriate noise area ategor7 2 ell ° 16)$+! e works! eet titled 9Representati1e , oise) n1i on$9
p o1ides a n˜m e of e: amples to ! elp sele t the noise a ea ategor7$
23 w! ere ˜ser input is selected - enter t! e meas˜ ed background noise level for eac! time period 2 ells ; 17 to ; 19)$
'$) nter t! e epresentati1e distan e in ell ° #'$
$ / elect s enario f om t! e drop-down list in ells ' #$
2a3is the e line of sig! t to e ei1e < / ele t from d op down list in ells F#* . Solid a ie an e in the fo m of oad ˜tting, solid onst ˜ tion ! oarding, acousti ˜ tain-timber lapped and apped fen e, s! ipping ontainer- site offi e, et $Please note t! at 1egetation and t ees are not onsidered to be a form of solid bar ier$
˜$ 4dentif7 t! e level above background and/or noise mangement level 2see ows 36 to 41)$
˜$ 4dentif7 and implement standard mitigation meas˜ es w! ere feasible and easonble. 4n l˜de an7 s! ileiding implemented as part of t! e standard mitigation meas˜ es 7 ! anging t! e selection in t! e 9is t! ere line of sight to ecei1er9drop-down list$
10. 4dentif7 and implement feasible and easonable additional mitigation meas˜ es 2see ows 42 to ˜˜3 $
11$Do ˜ment a s˜mma 7 epo t detailing8
(a) p o$e t des iption 2n l˜ding lo ation, d˜ration, ! o˜ s of wo k- onst ˜ tion methodolog7- plant , potentiall7 impa ted re ei1e s, etc$$
23 background noise levels$
2 3noise management le1els $
2i) predi ted noise levels for eac! time period.
2e) sleep dist˜ ban e affected distan e for night works$
273mitigation meas˜ es$
2g) team member esponsible for implementing mitigation meas˜ es and managing noise and 1i ation$

2 ote t! at s˜itable noise management levels for ot! er noise-sensiti1e ˜ sinesses not identified in t! e ° onst ˜ tion , oise) stimator s! ould be in1estigated on a project- 7 -

Construction Noise Estimator

Please nput nformat on nto yellow cells
Please pi k f om drop-down list in orange ells

Project nam	%12 & est
#cenar o nam	' (11) stablis! ment
Receiver address	777-819 .˜ dden! am Road, .˜ dden! am
# lect area ground type	0ndeveloped green fields 2˜ al areas wit! isolated dwellings3
# lect type of ˚ ackground noise level nput	0ser 4nput

No se area category		R presentat ve No se En˜ ronment	˜ ser ˜nput
RBL or $%5- (ackground level °'(°%/°''	Day		˜.
	Evening		6˙
	N ght		31
$% &7 +m nut " Noise mangement level °'(°%/°''	Day		ˆ.
	˙ ay °˜ ˜ ! ''		˜ˆ
	Evening		41
	N ght		6˙

R presentat ve ' stance °m''	213

#cenar o	#! L $% & °' (°%/°''	˜s t. ere l ne of s ght to receiver)	#. ldin˜ corr ction °'(°%/°''	˙ stance used n calculat on °m''	Contr but on #PL °'(°%/°''
° ompound operation	104	Yes	.	213	˜#

Total SPL L Aeq(15minute) (dBA)	42

St ps6

1.) nter project name 2 ell ° ˜3$
#$) nter s enario name 2 ell ° 10)$
6$) nter ecei1er address 2 ell ° 11)$
˜$ / elect area ground t7pe 2 ell ° 12) - water-˜ ndeveloped green fields 2e.g. ˜ al areas wit! isolated dwellings3 o de1eloped settlements 2e.g. ˜ ban and s˜ ˜ ban areas3
ˆ. / ele t type of a kg o˜nd noise le1el inp˜t - Rep entati1e noise en1i onment 2o make ass˜mptions3 o ˜se inp˜t 2w! e e noise monito ing data is a1aila le38
2a) w! ere epresentati1e noise en1i onment is selected - select t! e appropriate noise area ategor7 2 ell ° 16)$+! e works! eet titled 9Representati1e , oise) n1i on$9
p o1ides a n˜m e of e: amples to ! elp sele t the noise a ea ategor7$
23 w! ere ˜ser input is selected - enter t! e meas˜ ed background noise level for eac! time period 2 ells ; 17 to ; 19)$
˙$) nter t! e epresentati1e distan e in ell ° #˙$
$ / elect s enario f om t! e drop-down list in ells ' #$
2a3is the e line of sig! t to e ei1e < / ele t from d op down list in ells F#* . Solid a ie an e in the fo m of oad ˜tting, solid onst ˜ tion ! oarding, acousti ˜ tain-timber lapped and apped fen e, s! ipping ontainer- site offi e, et $Please note t! at 1egetation and t ees are not onsidered to be a form of solid bar ier$
˜$ 4dentif7 t! e level above background and/or noise mangement level 2see ows 36 to 41)$
˜$ 4dentif7 and implement standard mitigation meas˜ es w! ere feasible and easonble. 4n l˜de an7 s! ileiding implemented as part of t! e standard mitigation meas˜ es 7 ! anging t! e selection in t! e 9$s t! ere line of sight to ecei1er9drop-down list$
10. 4dentif7 and implement feasible and easonable additional mitigation meas˜ es 2see ows 42 to ˜˜3 $
11$Do ˜ment a s˜mma 7 epo t detailing8
(a) p o$e t des iption 2n l˜ding lo ation, d˜ration, ! o˜ s of wo k- onst ˜ tion methodolog7- plant , potentiall7 impa ted re ei1e s, etc$$
23 background noise levels$
2 3noise management le1els $
2d) predi ted noise levels for eac! time period.
2e) sleep dist˜ ban e affected distan e for night works$
2f3mitigation meas˜ es$
2g) team member esponsible for implementing mitigation meas˜ es and managing noise and 1i ation$

2 ote t! at s˜itable noise management levels for ot! er noise-sensiti1e ˜ sinesses not identified in t! e ° onst ˜ tion , oise) stimator s! ould be in1estigated on a project- 7 -

		Residential receiver	*Non-residential receivers*						
			Classroom at schools and other educational institutions	*Hospital wards and operating theatres*	*Place of worship*	*Active recreation*	*Passive recreation*	*Industrial premise*	*Offices, retail outlets*
Noise Management Level (dB(A))	#tandard hours	*50*	++	,+	++	,+	,-	.+	.-
	˙ ay °˜ ˜ ! ''	*45*	++	,+	++	,+	,-	.+	.-
	˜˜ ! P r o' 1	*41*		,+	++	,+	,-	.+	.-
	˜˜ ! P r o' 2	*36*		,+	++			.+	.-
Level above background (dB(A))	#tandard hours	*2*							
	Day °˜˜ ! ''	*2*							
	˜˜ ! P r o' 1	*6*							
	˜˜ ! P r o' 2	*11*							
Level above NML (dB(A))	#tandard hours	-							
	Day °˜˜ ! ''	-							
	˜˜ ! P r o' 1	*1*							
	˜˜ ! P r o' 2	*6*							
Additional mitigation measures	#tandard ours	-	1	1	1	1	1	1	1
	Day °˜˜ ! ''	-	1	1	1	1	1	1	1
	˜˜ ! P r o' 1	-		1	1	1	1	1	1
	˜˜ ! P r o' 2	*V, N, R2, DR*		1	1			1	1

%bbr at on	2 easur
N	Notification (letterbox drop or equivalent
SN	Specific notifications
PC	Phone calls
IB	Individual briefings
RO	Respite offer
R1	Respite period 1
R2	Respite period 2
DR	Duration respite
AA	Alternative accommodation
V	Verification

Transport for NSW

Noise Estimator (Individual Plant)

Please input information into yellow cells

Please pick from drop-down list in orange cells

Project name	M12W Rock Crushing Cut 5
Scenario name	Rock crushing activity
Receiver address	821-849 Luddenham Rd, Luddenham NSW 2745
Select area ground type	Undeveloped green fields (rural areas with isolated dwellings)
Select type of background noise level input	User Input

		Representative Noise Environment	User Input
Noise area category			
RBL or LA90 Background level (dB(A))	Day		48
	Evening		35
	Night		32
LAeq(15minute) Noise mangement level (dB(A))	Day		58
	Day (OOHW)		53
	Evening		40
	Night		37

Is all plant at the same representative distance to the receiver? Y/N	Y	
Representative distance (m)	450	*All at Representative Distance*

Steps:

1. Enter project name (cell C9).
2. Enter scenario name (cell C10).
3. Enter receiver address (cell C11).
4. Select area ground type (cell C12) - water, undeveloped green fields (e.g. rural areas with isolated dwellings) or developed settlements (e.g. urban and suburban areas)
5. Select the type of background noise level input - Representative noise environment (to make assumptions) or user input (where noise monitoring data is available):
   (a) where representative noise environment is selected - select the appropriate noise area category (cell C16). The worksheet titled 'Representative Noise Environ.' provides a number of examples to help select the noise area category.
   (b) where user input is selected - enter the measured background noise level for each time period (cells D17 to D19).
6. Is all plant at the same representative distance to the receiver? Select Y or N (cell C24):
   (a) where Y is selected - enter the representative distance in cell C25.
   (b) where N is selected - go to step #7
7. For the scenario (e.g. shallow excavation), select plant from the drop-down list in cells A28 to A47 (e.g. dump trucks + excavator).
   (a) enter quantity for each selected plant in cells D28 to D47.
   (b) where N is selected from step #6 - enter the distance to receiver for each individual plant in cells E28 to E47.
   (c) is there line of sight to receiver? select from drop down list in cells F28 to F47. Solid barrier can be in the form of road cutting, solid construction hoarding, acoustic curtain, timber lapped and capped fence, shipping container, site office, etc. Please note that vegetation and trees are not considered to be a form of solid barrier.
8. Identify the level above background and/or noise mangement level (see rows 57 to 62).
9. Identify and implement standard mitigation measures where feasible and reasonable. Include any shielding implemented as part of the standard mitigation measures by changing the selection in the 'Is there line of sight to receiver' drop-down list.
10. Identify and implement feasible and reasonable additional mitigation measures (see rows 63 to 65).
11. Document a summary report detailing:
    (a) project description (including location, duration, hours of work, construction methodology, plant , potentially impacted receivers, etc.).
    (b) background noise levels.
    (c) noise management levels .
    (d) predicted noise levels for each time period.
    (e) sleep disturbance affected distance for night works.
    (f) mitigation measures.
    (g) team member responsible for implementing mitigation measures and managing noise and vibration.

Type/ model plant (See Sources Sheet)	SWL LAeq (dB(A))	SPL @7m (dB(A))	Quantity	Individual distance to receiver (m)	Is there line of sight to receiver? Y/N	Quantity correction (dBA)	Shielding correction (dBA)	Distance used in calculation (m)	Contribution SPL (dB(A))
Rock crusher	118	93	1	450	No (behind substantial solid barrier)	0	-10	450	37
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888

Total SPL LAeq(15minute) (dB(A))	***37***

			Non-residential receivers						
		Residential receiver	*Classroom at schools and other educational institutions*	*Hospital wards and operating theatres*	*Place of worship*	*Active recreation*	*Passive recreation*	*Industrial premise*	*Offices, retail outlets*
Noise Management Level (dB(A))	Standard hours	*58*	55	65	55	65	60	75	70
	Day (OOHW)	*53*	55	65	55	65	60	75	70
	OOHW Period 1	*40*		65	55	65	60	75	70
	OOHW Period 2	*37*		65	55			75	70
Level above background (dB(A))	Standard hours								
	Day (OOHW)								
	OOHW Period 1	*2*							
	OOHW Period 2	*5*							
Level above NML (dB(A))	Standard hours								
	Day (OOHW)								
	OOHW Period 1								
	OOHW Period 2	*0*							
Additional mitigation measures	Standard Hours	-	-	-	-	-	-	-	-
	Day (OOHW)	-	-	-	-	-	-	-	-
	OOHW Period 1	-		-	-	-	-	-	-
	OOHW Period 2	*N*		-	-			-	-

Abbreviation	Measure
N	Notification
SN	Specific notifications
PC	Phone calls
IB	Individual briefings
RO	Respite offer
R1	Respite period 1
R2	Respite period 2
DR	Duration respite
AA	Alternative accommodation
V	Verification

Transport for NSW

Noise Estimator (Individual Plant)

Please input information into yellow cells
Please pick from drop-down list in orange cells

Project name	M12W Rock Crushing - Main alignment
Scenario name	Rock crushing activity- CAF 001
Receiver address	2594-3776 The Northern Road, Luddenham
Select area ground type	Undeveloped green fields (rural areas with isolated dwellings)
Select type of background noise level input	User input

Noise area category		Representative Noise Environment	User Input
RBL or L_{A90} Background level (dB(A))	Day		44
	Evening		48
	Night		36
$L_{Aeq(15minute)}$ Noise mangement level (dB(A))	Day		54
	Day (OOHW)		49
	Evening		53
	Night		41

Is all plant at the same representative distance to the receiver? Y/N	N
Representative distance (m)	194

Using Individual Distances!

Steps:
1. Enter project name (cell C5).
2. Enter scenario name (cell C10).
3. Enter receiver address (cell C11).
4. Select area ground type (cell C12) - water, undeveloped green fields (e.g. rural areas with isolated dwellings) or developed settlements (e. g. urban and suburban areas)
5. Select the type of background noise level input - Representative noise environment (to make assumptions) or user input (when a noise monitoring data is available)
   (a) where representative noise environment is selected - select the appropriate noise area category (cell C16). The worksheet titled 'Representative Noise Environ.' provides a number of examples to help select the noise area category.
   (b) where user input is selected - enter the measured background noise level for each time period (cells D17 to D19).
6. Is all plant at the same representative distance to the receiver? Select Y or N (cell C24)
   (a) where Y is selected - enter the representative distance in cell C25.
   (b) where N is selected - go to step #7
7. For the scenario (e.g. shallow excavation), select plant from the drop-down list in cells A28 to A47 (e.g. dump trucks + excavator).
   (a) enter quantity for each selected plant in cells D28 to D47.
   (b) where N is selected from step #6 - enter the distance to receiver for each individual plant in cells E28 to E47.
   (c) is there line of sight to receiver? select from drop down list in cells F28 to F47. Solid barrier can be in the form of road cutting, solid construction hoarding, acoustic curtain, timber lapped and capped fence, shipping container, site office, etc. Please note that vegetation and trees are not considered to be a form of solid barrier.
8. Identify the level above background and/or noise management level (see rows 57 to 62).
9. Identify and implement standard mitigation measures where feasible and reasonable. Include any shielding implemented as part of the standard mitigation measures by changing the selection in the 'Is there line of sight to receiver' drop-down list.
10. Identify and implement feasible and reasonable additional mitigation measures (see rows 63 to 65).
11. Document a summary report detailing
   (a) project description (including location, duration, hours of work, construction methodology, plant, potentially impacted receivers, etc.).
   (b) background noise levels
   (c) noise management levels
   (d) predicted noise levels for each time period.
   (e) sleep disturbance affected distance for night works.
   (f) mitigation measures.
   (g) team member responsible for implementing mitigation measures and managing noise and vibration.

Type/ model plant (See Sources Sheet)	SWL L_{Aeq} (dB(A))	SPL @7m (dB(A))	Quantity	Individual distance to receiver (m)	Is there line of sight to receiver? Y/N	Quantity correction (dB(A))	Shielding correction (dB(A))	Distance used in calculation (m)	Contribution SPL (dB(A))
Rock crusher	118	93	1	700	No (behind schematic solid barrier)	0	-30	700	31
Tracked Excavator	110	85	1	700	No (behind schematic solid barrier)	0	-30	700	23
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888

Total SPL $L_{Aeq(15minute)}$ (dB(A))	31

		Residential receiver	*Non-residential receivers*						
			Classroom at schools and other educational institutions	*Hospital wards and operating theatres*	*Place of worship*	*Active recreation*	*Passive recreation*	*Industrial premise*	*Offices, retail outlets*
Noise Management Level (dB(A))	Standard hours	54	65	65	55	65	60	75	70
	Day (OOHW)	49	65	65	55	65	60	75	70
	OOHW Period 1	53		65	55	65	60	75	70
	OOHW Period 2	41		65	55			75	70
Level above background (dB(A))	Standard hours								
	Day (OOHW)								
	OOHW Period 1								
	OOHW Period 2								
Level above NML (dB(A))	Standard hours								
	Day (OOHW)								
	OOHW Period 1								
	OOHW Period 2								
Additional mitigation measures	Standard Hours	-	-	-	-	-	-	-	-
	Day (OOHW)	-	-	-	-	-	-	-	-
	OOHW Period 1	-		-	-	-	-	-	-
	OOHW Period 2	-		-	-			-	-

Abbreviation	Measure
N	Notification
SN	Specific notifications
PC	Phone calls
IB	Individual briefings
RO	Respite offer
R1	Respite period 1
R2	Respite period 2
DR	Duration respite
AA	Alternative accommodation
V	Verification

Transport for NSW

Noise Estimator (Individual Plant)

Steps:
1. Enter project name (cell C5).
2. Enter scenario name (cell C10).
3. Enter receiver address (cell C11).
4. Select area ground type (cell C12) - water, undeveloped green fields (e.g. rural areas with isolated dwellings) or developed settlements (e. g. urban and suburban areas)
5. Select the type of background noise level input - Representative noise environment (to make assumptions) or user input (when a noise monitoring data is available)
   (a) where representative noise environment is selected - select the appropriate noise area category (cell C16). The worksheet titled 'Representative Noise Environ.' provides a number of examples to help select the noise area category.
   (b) where user input is selected - enter the measured background noise level for each time period (cells D17 to D19).
6. Is all plant at the same representative distance to the receiver? Select Y or N (cell C24)
   (a) where Y is selected - enter the representative distance in cell C25.
   (b) where N is selected - go to step #7
7. For the scenario (e.g. shallow excavation), select plant from the drop-down list in cells A28 to A47 (e.g. dump trucks + excavator).
   (a) enter quantity for each selected plant in cells D28 to D47.
   (b) where N is selected from step #6 - enter the distance to receiver for each individual plant in cells E28 to E47.
   (c) is there line of sight to receiver? select from drop down list in cells F28 to F47. Solid barrier can be in the form of road cutting, solid construction hoarding, acoustic curtain, timber lapped and capped fence, shipping container, site office, etc. Please note that vegetation and trees are not considered to be a form of solid barrier.
8. Identify the level above background and/or noise management level (see rows 57 to 62).
9. Identify and implement standard mitigation measures where feasible and reasonable. Include any shielding implemented as part of the standard mitigation measures by changing the selection in the 'Is there line of sight to receiver' drop-down list.
10. Identify and implement feasible and reasonable additional mitigation measures (see rows 63 to 65).
11. Document a summary report detailing
   (a) project description (including location, duration, hours of work, construction methodology, plant, potentially impacted receivers, etc.).
   (b) background noise levels
   (c) noise management levels
   (d) predicted noise levels for each time period.
   (e) sleep disturbance affected distance for night works.
   (f) mitigation measures.
   (g) team member responsible for implementing mitigation measures and managing noise and vibration.

Please input information into yellow cells
Please pick from drop-down list in orange cells

Project name	M12W Rock Crushing - Main alignment
Scenario name	Rock crushing activity - CAF 002
Receiver address	765 Luddenham Road, Luddenham
Select area ground type	Undeveloped green fields (rural areas with isolated dwellings)
Select type of background noise level input	User input

Noise area category		Representative Noise Environment	User Input
RBL or L_{A90} Background level (dB(A))	Day		40
	Evening		36
	Night		31
$L_{Aeq(15minute)}$ Noise mangement level (dB(A))	Day		50
	Day (OOHW)		45
	Evening		41
	Night		36

Is all plant at the same representative distance to the receiver? Y/N	N
Representative distance (m)	194

Using Individual Distances!

Type/ model plant (See Sources Sheet)	SWL L_{Aeq} (dB(A))	SPL @7m (dB(A))	Quantity	Individual distance to receiver (m)	Is there line of sight to receiver? Y/N	Quantity correction (dB(A))	Shielding correction (dB(A))	Distance used in calculation (m)	Contribution SPL (dB(A))
Rock crusher	118	93	1	194	No (Natural schenario/ solid barrier)	0	-10	194	48
Tracked Excavator	110	85	1	194	No (behind substantial solid barrier)	0	-10	194	40
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888

Total SPL $L_{Aeq(15minute)}$ (dB(A))	48

		Residential receiver	Non-residential receivers						
			Classroom at schools and other educational institutions	Hospital wards and operating theatres	Place of worship	Active recreation	Passive recreation	Industrial premise	Offices, retail outlets
Noise Management Level (dB(A))	Standard hours	50	55	65	55	65	60	75	70
	Day (OOHW)	45	55	65	55	65	60	75	70
	OOHW Period 1	41		65	55	65	60	75	70
	OOHW Period 2	36		65	55			75	70
Level above background (dB(A))	Standard hours	8							
	Day (OOHW)	8							
	OOHW Period 1	12							
	OOHW Period 2	17							
Level above NML (dB(A))	Standard hours	-							
	Day (OOHW)	7							
	OOHW Period 1	7							
	OOHW Period 2	12							
Additional mitigation measures	Standard Hours	-	-	-	-	-	-	-	-
	Day (OOHW)	-	-	-	-	-	-	-	-
	OOHW Period 1	N, RI, DR		-	-	-	-	-	-
	OOHW Period 2	V, N, RI, DR		-	-			-	-

Abbreviation	Measure
N	Notification
SN	Specific notifications
PC	Phone calls
IB	Individual briefings
RO	Respite offer
R1	Respite period 1
R2	Respite period 2
DR	Duration respite
AA	Alternative accommodation
V	Verification

Transport for NSW

Noise Estimator (Individual Plant)

Steps:
1. Enter project name (cell C5).
2. Enter scenario name (cell C10).
3. Enter receiver address (cell C11).
4. Select area ground type (cell C12) - water, undeveloped green fields (e.g. rural areas with isolated dwellings) or developed settlements (e. g. urban and suburban areas)
5. Select the type of background noise level input - Representative noise environment (to make assumptions) or user input (when a noise monitoring data is available)
   (a) where representative noise environment is selected - select the appropriate noise area category (cell C16). The worksheet titled 'Representative Noise Environ.' provides a number of examples to help select the noise area category.
   (b) where user input is selected - enter the measured background noise level for each time period (cells D17 to D19).
6. Is all plant at the same representative distance to the receiver? Select Y or N (cell C24)
   (a) where Y is selected - enter the representative distance in cell C25.
   (b) where N is selected - go to step #7
7. For the scenario (e.g. shallow excavation), select plant from the drop-down list in cells A28 to A47 (e.g. dump trucks + excavator).
   (a) enter quantity for each selected plant in cells D28 to D47.
   (b) where N is selected from step #6 - enter the distance to receiver for each individual plant in cells E28 to E47.
   (c) is there line of sight to receiver? select from drop down list in cells F28 to F47. Solid barrier can be in the form of road cutting, solid construction hoarding, acoustic curtain, timber lapped and capped fence, shipping container, site office, etc. Please note that vegetation and trees are not considered to be a form of solid barrier.
8. Identify the level above background and/or noise management level (see rows 57 to 62).
9. Identify and implement standard mitigation measures where feasible and reasonable. Include any shielding implemented as part of the standard mitigation measures by changing the selection in the 'Is there line of sight to receiver' drop-down list.
10. Identify and implement feasible and reasonable additional mitigation measures (see rows 63 to 65).
11. Document a summary report detailing
   (a) project description (including location, duration, hours of work, construction methodology, plant, potentially impacted receivers, etc.).
   (b) background noise levels
   (c) noise management levels
   (d) predicted noise levels for each time period.
   (e) sleep disturbance affected distance for night works.
   (f) mitigation measures.
   (g) team member responsible for implementing mitigation measures and managing noise and vibration.

Please input information into yellow cells
Please pick from drop-down list in orange cells

Project name	M12W Rock Crushing - Main alignment
Scenario name	Rock crushing activity- CAF 003
Receiver address	765 Luddenham Road, Luddenham
Select area ground type	Undeveloped green fields (rural areas with isolated dwellings)
Select type of background noise level input	User input

Noise area category		Representative Noise Environment	User Input
RBL or L_{A90} Background level (dB(A))	Day		40
	Evening		36
	Night		31
$L_{Aeq(15minute)}$ Noise mangement level (dB(A))	Day		50
	Day (OOHW)		45
	Evening		41
	Night		36

Is all plant at the same representative distance to the receiver? Y/N	N
Representative distance (m)	180

Using Individual Distances!

Type/ model plant (See Sources Sheet)	SWL L_{Aeq} (dB(A))	SPL @7m (dB(A))	Quantity	Individual distance to receiver (m)	Is there line of sight to receiver? Y/N	Quantity correction (dB(A))	Shielding correction (dB(A))	Distance used in calculation (m)	Contribution SPL (dB(A))
Rock crusher	118	93	1	180	No (behind solid barrier)	0	-5	180	54
Tracked Excavator	110	85	1	180	No (behind solid barrier)	0	-5	180	46
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888

Total SPL $L_{Aeq(15minute)}$ (dB(A))	54

		Residential receiver	*Non-residential receivers*						
			Classroom at schools and other educational institutions	*Hospital wards and operating theatres*	*Place of worship*	*Active recreation*	*Passive recreation*	*Industrial premise*	*Offices, retail outlets*
Noise Management Level (dB(A))	Standard hours	50	55	65	55	65	60	75	70
	Day (OOHW)	45	55	65	55	65	60	75	70
	OOHW Period 1	41		65	55	65	60	75	70
	OOHW Period 2	36		65	55			75	70
Level above background (dB(A))	Standard hours	14							
	Day (OOHW)	14							
	OOHW Period 1	19							
	OOHW Period 2	23							
Level above NML (dB(A))	Standard hours	4							
	Day (OOHW)	9							
	OOHW Period 1	13							
	OOHW Period 2	18							
Additional mitigation measures	Standard Hours	-	-	-	-	-	-	-	-
	Day (OOHW)	N, RI, DR	-	-	-	-	-	-	-
	OOHW Period 1	N, RI, DR		-	-	-	-	-	-
	OOHW Period 2	V, IN, N, PC, SN, RI, DR		-	-			-	-

Abbreviation	Measure
N	Notification
SN	Specific notifications
PC	Phone calls
IB	Individual briefings
RO	Respite offer
R1	Respite period 1
R2	Respite period 2
DR	Duration respite
AA	Alternative accommodation
V	Verification

Transport for NSW

Noise Estimator (Individual Plant)

Please input information into yellow cells

Please pick from drop-down list in orange cells

Project name	M12W Rock Crushing - Main alignment
Scenario name	Rock crushing activity- CAF 004
Receiver address	734-750 Luddenham Road, Luddenham
Select area ground type	Undeveloped green fields (rural areas with isolated dwellings)
Select type of background noise level input	User Input

		Representative Noise Environment	User Input
Noise area category			
RBL or L_{A90} Background level (dB(A))	Day		40
	Evening		36
	Night		31
$L_{Aeq(15minute)}$ Noise mangement level (dB(A))	Day		50
	Day (OOHW)		45
	Evening		41
	Night		36

Is all plant at the same representative distance to the receiver? Y/N	Y	
Representative distance (m)	430	All at Representative Distance

Steps:

1. Enter project name (cell C9).
2. Enter scenario name (cell C10).
3. Enter receiver address (cell C11).
4. Select area ground type (cell C12) - water, undeveloped green fields (e.g. rural areas with isolated dwellings) or developed settlements (e .g. urban and suburban areas)
5. Select the type of background noise level input - Representative noise environment (to make assumptions) or user input (wher e noise monitoring data is available)
   (a) where representative noise environment is selected - select the appropriate noise area category (cell C16). The worksheet titled 'Representative Noise Environ.' provides a number of examples to help select the noise area category.
   (b) where user input is selected - enter the measured background noise level for each time period (cells D17 to D19).
6. Is all plant at the same representative distance to the receiver? Select Y or N (cell C24)
   (a) where Y is selected - enter the representative distance in cell C25.
   (b) where N is selected - go to step #7
7. For the scenario (e.g. shallow excavation), select plant from the drop-down list in cells A28 to A47 (e.g. dump trucks + excavator).
   (a) enter quantity for each selected plant in cells D28 to D47.
   (b) where N is selected from step #6 - enter the distance to receiver for each individual plant in cells E28 to E47.
   (c) is there line of sight to receiver? select from drop down list in cells F28 to F47. Solid barrier can be in the form of road cutting, solid construction hoarding, acoustic curtain, timber lapped and capped fence, shipping container, site office, etc. Please note that vegetation and trees are not considered to be a form of solid barrier.
8. Identify the level above background and/or noise mangement level (see rows 57 to 62).
9. Identify and implement standard mitigation measures where feasible and reasonable. Include any shielding implemented as part of the standard mitigation measures by changing the selection in the 'Is there line of sight to receiver' drop-down list.
10. Identify and implement feasible and reasonable additional mitigation measures (see rows 63 to 65).
11. Document a summary report detailing
   (a) project description (including location, duration, hours of work, construction methodology, plant , potentially impacted receivers, etc.).
   (b) background noise levels.
   (c) noise management levels .
   (d) predicted noise levels for each time period.
   (e) sleep disturbance affected distance for night works.
   (f) mitigation measures.
   (g) team member responsible for implementing mitigation measures and managing noise and vibration.

Type/ model plant (See Sources Sheet)	SWL L_{Aeq} (dB(A))	SPL @7m (dB(A))	Quantity	Individual distance to receiver (m)	Is there line of sight to receiver? Y/N	Quantity correction (dBA)	Shielding correction (dBA)	Distance used in calculation (m)	Contribution SPL (dB(A))
Rock crusher	118	93	1	430	No (behind substantial solid barrier)	0	-10	430	37
Tracked Excavator	110	85	1	430	No (behind substantial solid barrier)	0	-10	430	29
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888

Total SPL $L_{Aeq(15minute)}$ (dB(A))	38

		Residential receiver	Non-residential receivers: Classroom at schools and other educational institutions	Hospital wards and operating theatres	Place of worship	Active recreation	Passive recreation	Industrial premise	Offices, retail outlets
Noise Management Level (dB(A))	Standard hours	50	55	65	55	65	60	75	70
	Day (OOHW)	45	55	65	55	65	60	75	70
	OOHW Period 1	41		65	55	65	60	75	70
	OOHW Period 2	36		65	55			75	70
Level above background (dB(A))	Standard hours								
	Day (OOHW)								
	OOHW Period 1	2							
	OOHW Period 2	7							
Level above NML (dB(A))	Standard hours								
	Day (OOHW)								
	OOHW Period 1								
	OOHW Period 2	2							
Additional mitigation measures	Standard Hours	-	-	-	-	-	-	-	-
	Day (OOHW)	-	-	-	-	-	-	-	-
	OOHW Period 1	-		-	-	-	-	-	-
	OOHW Period 2	N		-	-			-	-

Abbreviation	Measure
N	Notification
SN	Specific notifications
PC	Phone calls
IB	Individual briefings
RO	Respite offer
R1	Respite period 1
R2	Respite period 2
DR	Duration respite
AA	Alternative accommodation
V	Verification

Transport for NSW

Noise Estimator (Individual Plant)

Please input information into yellow cells
Please pick from drop-down list in orange cells

Project name	M12W Rock Crushing - Main a ignment
Scenario name	Rock crushing activity- CAF 005
Receiver address	Farmingdale Court Luddenham
Select area ground type	Undeveloped green fields (rural areas with isolated dwellings)
Select type of background noise level input	User Input

		Representative Noise Environment	User Input
Noise area category			
RBL or L_{A90} Background level (dB(A))	Day		40
	Evening		36
	Night		31
$L_{Aeq(15minute)}$ Noise mangement level (dB(A))	Day		50
	Day (OOHW)		45
	Evening		41
	Night		36

Is all plant at the same representative distance to the receiver? Y/N	Y	
Representative distance (m)	600	All at Representative Distance

Steps:
1. Enter project name (cell C9).
2. Enter scenario name (cell C10).
3. Enter receiver address (cell C11).
4. Select area ground type (cell C12) - water, undeveloped green fields (e.g. rural areas with isolated dwellings) or developed settlements (e .g. urban and suburban areas)
5. Select the type of background noise level input - Representative noise environment (to make assumptions) or user input (wher e noise monitoring data is available)
   (a) where representative noise environment is selected - select the appropriate noise area category (cell C16). The worksheet titled 'Representative Noise Environ.' provides a number of examples to help select the noise area category.
   (b) where user input is selected - enter the measured background noise level for each time period (cells D17 to D19).
6. Is all plant at the same representative distance to the receiver? Select Y or N (cell C24)
   (a) where Y is selected - enter the representative distance in cell C25.
   (b) where N is selected - go to step #7
7. For the scenario (e.g. shallow excavation), select plant from the drop-down list in cells A28 to A47 (e.g. dump trucks + excavator).
   (a) enter quantity for each selected plant in cells D28 to D47.
   (b) where N is selected from step #6 - enter the distance to receiver for each individual plant in cells E28 to E47.
   (c) is there line of sight to receiver? select from drop down list in cells F28 to F47. Solid barrier can be in the form of road cutting, solid construction hoarding, acoustic curtain, timber lapped and capped fence, shipping container, site office, etc. Please note that vegetation and trees are not considered to be a form of solid barrier.
8. Identify the level above background and/or noise mangement level (see rows 57 to 62).
9. Identify and implement standard mitigation measures where feasible and reasonable. Include any shielding implemented as part of the standard mitigation measures by changing the selection in the 'Is there line of sight to receiver' drop-down list.
10. Identify and implement feasible and reasonable additional mitigation measures (see rows 63 to 65).
11. Document a summary report detailing
   (a) project description (including location, duration, hours of work, construction methodology, plant , potentially impacted receivers, etc.).
   (b) background noise levels.
   (c) noise management levels .
   (d) predicted noise levels for each time period.
   (e) sleep disturbance affected distance for night works.
   (f) mitigation measures.
   (g) team member responsible for implementing mitigation measures and managing noise and vibration.

Type/ model plant (See Sources Sheet)	SWL L_{Aeq} (dB(A))	SPL @7m (dB(A))	Quantity	Individual distance to receiver (m)	Is there line of sight to receiver? Y/N	Quantity correction (dBA)	Shielding correction (dBA)	Distance used in calculation (m)	Contribution SPL (dB(A))
Rock crusher	118	93	1	600	No (behind substantial solid barrier)	0	-10	600	33
Tracked Excavator	110	85	1	600	No (behind substantial solid barrier)	0	-10	600	25
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888

Total SPL $L_{Aeq(15minute)}$ (dB(A))	33

			Non-residential receivers						
		Residential receiver	*Classroom at schools and other educational institutions*	*Hospital wards and operating theatres*	*Place of worship*	*Active recreation*	*Passive recreation*	*Industrial premise*	*Offices, retail outlets*
Noise Management Level (dB(A))	Standard hours	50	55	65	55	65	60	75	70
	Day (OOHW)	45	55	65	55	65	60	75	70
	OOHW Period 1	41		65	55	65	60	75	70
	OOHW Period 2	36		65	55			75	70
Level above background (dB(A))	Standard hours								
	Day (OOHW)								
	OOHW Period 1								
	OOHW Period 2	2							
Level above NML (dB(A))	Standard hours								
	Day (OOHW)								
	OOHW Period 1								
	OOHW Period 2								
Additional mitigation measures	Standard Hours	-	-	-	-	-	-	-	-
	Day (OOHW)	-	-	-	-	-	-	-	-
	OOHW Period 1	-		-	-	-	-	-	-
	OOHW Period 2	-		-	-			-	-

Abbreviation	Measure
N	Notification
SN	Specific notifications
PC	Phone calls
IB	Individual briefings
RO	Respite offer
R1	Respite period 1
R2	Respite period 2
DR	Duration respite
AA	Alternative accommodation
V	Verification

Transport for NSW

Noise Estimator (Individual Plant)

Please input information into yellow cells

Please pick from drop-down list in orange cells

Project name	M12W Rock Crushing - Main a ignment
Scenario name	Rock crushing activity- CAF 006
Receiver address	Farmingdale Court Luddenham
Select area ground type	Undeveloped green fields (rural areas with isolated dwellings)
Select type of background noise level input	User Input

		Representative Noise Environment	User Input
Noise area category			
RBL or L_{A90} Background level (dB(A))	Day		40
	Evening		36
	Night		31
$L_{Aeq(15minute)}$ Noise mangement level (dB(A))	Day		50
	Day (OOHW)		45
	Evening		41
	Night		36

Is all plant at the same representative distance to the receiver? Y/N	Y	
Representative distance (m)	550	*All at Representative Distance*

Steps:

1. Enter project name (cell C9).
2. Enter scenario name (cell C10).
3. Enter receiver address (cell C11).
4. Select area ground type (cell C12) - water, undeveloped green fields (e.g. rural areas with isolated dwellings) or developed settlements (e .g. urban and suburban areas)
5. Select the type of background noise level input - Representative noise environment (to make assumptions) or user input (wher e noise monitoring data is available)
   (a) where representative noise environment is selected - select the appropriate noise area category (cell C16). The worksheet titled 'Representative Noise Environ.' provides a number of examples to help select the noise area category.
   (b) where user input is selected - enter the measured background noise level for each time period (cells D17 to D19).
6. Is all plant at the same representative distance to the receiver? Select Y or N (cell C24)
   (a) where Y is selected - enter the representative distance in cell C25.
   (b) where N is selected - go to step #7
7. For the scenario (e.g. shallow excavation), select plant from the drop-down list in cells A28 to A47 (e.g. dump trucks + excavator).
   (a) enter quantity for each selected plant in cells D28 to D47.
   (b) where N is selected from step #6 - enter the distance to receiver for each individual plant in cells E28 to E47.
   (c) is there line of sight to receiver? select from drop down list in cells F28 to F47. Solid barrier can be in the form of road cutting, solid construction hoarding, acoustic curtain, timber lapped and capped fence, shipping container, site office, etc. Please note that vegetation and trees are not considered to be a form of solid barrier.
8. Identify the level above background and/or noise mangement level (see rows 57 to 62).
9. Identify and implement standard mitigation measures where feasible and reasonable. Include any shielding implemented as part of the standard mitigation measures by changing the selection in the 'Is there line of sight to receiver' drop-down list.
10. Identify and implement feasible and reasonable additional mitigation measures (see rows 63 to 65).
11. Document a summary report detailing
   (a) project description (including location, duration, hours of work, construction methodology, plant , potentially impacted receivers, etc.).
   (b) background noise levels.
   (c) noise management levels .
   (d) predicted noise levels for each time period.
   (e) sleep disturbance affected distance for night works.
   (f) mitigation measures.
   (g) team member responsible for implementing mitigation measures and managing noise and vibration.

Type/ model plant (See Sources Sheet)	SWL L_{Aeq} (dB(A))	SPL @7m (dB(A))	Quantity	Individual distance to receiver (m)	Is there line of sight to receiver? Y/N	Quantity correction (dBA)	Shielding correction (dBA)	Distance used in calculation (m)	Contribution SPL (dB(A))
Rock crusher	118	93	1	550	No (behind substantial solid barrier)	0	-10	550	34
Tracked Excavator	110	85	1	550	No (behind substantial solid barrier)	0	-10	550	26
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888

Total SPL $L_{Aeq(15minute)}$ (dB(A))	***34***

			Non-residential receivers						
		Residential receiver	*Classroom at schools and other educational institutions*	*Hospital wards and operating theatres*	*Place of worship*	*Active recreation*	*Passive recreation*	*Industrial premise*	*Offices, retail outlets*
Noise Management Level (dB(A))	Standard hours	*50*	55	65	55	65	60	75	70
	Day (OOHW)	*45*	55	65	55	65	60	75	70
	OOHW Period 1	*41*		65	55	65	60	75	70
	OOHW Period 2	*36*		65	55			75	70
Level above background (dB(A))	Standard hours								
	Day (OOHW)								
	OOHW Period 1								
	OOHW Period 2	*3*							
Level above NML (dB(A))	Standard hours								
	Day (OOHW)								
	OOHW Period 1								
	OOHW Period 2								
Additional mitigation measures	Standard Hours	-	-	-	-	-	-	-	-
	Day (OOHW)	-	-	-	-	-	-	-	-
	OOHW Period 1	-		-	-	-	-	-	-
	OOHW Period 2	-		-	-			-	-

Abbreviation	Measure
N	Notification
SN	Specific notifications
PC	Phone calls
IB	Individual briefings
RO	Respite offer
R1	Respite period 1
R2	Respite period 2
DR	Duration respite
AA	Alternative accommodation
V	Verification

Transport for NSW

Noise Estimator (Individual Plant)

Please input information into yellow cells

Please pick from drop-down list in orange cells

Project name	M12W Rock Crushing - Main alignment
Scenario name	Rock crushing activity- CAF 007
Receiver address	Farmingdale Court Luddenham
Select area ground type	Undeveloped green fields (rural areas with isolated dwellings)
Select type of background noise level input	User Input

		Representative Noise Environment	User Input
Noise area category			
RBL or L_{A90} Background level (dB(A))	Day		40
	Evening		36
	Night		31
$L_{Aeq(15minute)}$ Noise mangement level (dB(A))	Day		50
	Day (OOHW)		45
	Evening		41
	Night		36

Is all plant at the same representative distance to the receiver? Y/N	Y	
Representative distance (m)	520	*All at Representative Distance*

Steps:

1. Enter project name (cell C9).
2. Enter scenario name (cell C10).
3. Enter receiver address (cell C11).
4. Select area ground type (cell C12) - water, undeveloped green fields (e.g. rural areas with isolated dwellings) or developed settlements (e .g. urban and suburban areas)
5. Select the type of background noise level input - Representative noise environment (to make assumptions) or user input (wher e noise monitoring data is available)
   (a) where representative noise environment is selected - select the appropriate noise area category (cell C16). The worksheet titled 'Representative Noise Environ.' provides a number of examples to help select the noise area category.
   (b) where user input is selected - enter the measured background noise level for each time period (cells D17 to D19).
6. Is all plant at the same representative distance to the receiver? Select Y or N (cell C24)
   (a) where Y is selected - enter the representative distance in cell C25.
   (b) where N is selected - go to step #7
7. For the scenario (e.g. shallow excavation), select plant from the drop-down list in cells A28 to A47 (e.g. dump trucks + excavator).
   (a) enter quantity for each selected plant in cells D28 to D47.
   (b) where N is selected from step #6 - enter the distance to receiver for each individual plant in cells E28 to E47.
   (c) is there line of sight to receiver? select from drop down list in cells F28 to F47. Solid barrier can be in the form of road cutting, solid construction hoarding, acoustic curtain, timber lapped and capped fence, shipping container, site office, etc. Please note that vegetation and trees are not considered to be a form of solid barrier.
8. Identify the level above background and/or noise mangement level (see rows 57 to 62).
9. Identify and implement standard mitigation measures where feasible and reasonable. Include any shielding implemented as part of the standard mitigation measures by changing the selection in the 'Is there line of sight to receiver' drop-down list.
10. Identify and implement feasible and reasonable additional mitigation measures (see rows 63 to 65).
11. Document a summary report detailing
   (a) project description (including location, duration, hours of work, construction methodology, plant , potentially impacted receivers, etc.).
   (b) background noise levels.
   (c) noise management levels .
   (d) predicted noise levels for each time period.
   (e) sleep disturbance affected distance for night works.
   (f) mitigation measures.
   (g) team member responsible for implementing mitigation measures and managing noise and vibration.

Type/ model plant (See Sources Sheet)	SWL L_{Aeq} (dB(A))	SPL @7m (dB(A))	Quantity	Individual distance to receiver (m)	Is there line of sight to receiver? Y/N	Quantity correction (dBA)	Shielding correction (dBA)	Distance used in calculation (m)	Contribution SPL (dB(A))
Rock crusher	118	93	1	520	No (behind substantial solid barrier)	0	-10	520	35
Tracked Excavator	110	85	1	520	No (behind substantial solid barrier)	0	-10	520	27
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888

Total SPL $L_{Aeq(15minute)}$ (dB(A))	*35*

			Non-residential receivers						
		Residential receiver	*Classroom at schools and other educational institutions*	*Hospital wards and operating theatres*	*Place of worship*	*Active recreation*	*Passive recreation*	*Industrial premise*	*Offices, retail outlets*
Noise Management Level (dB(A))	Standard hours	*50*	55	65	55	65	60	75	70
	Day (OOHW)	*45*	55	65	55	65	60	75	70
	OOHW Period 1	*41*		65	55	65	60	75	70
	OOHW Period 2	*36*		65	55			75	70
Level above background (dB(A))	Standard hours								
	Day (OOHW)								
	OOHW Period 1								
	OOHW Period 2	*4*							
Level above NML (dB(A))	Standard hours								
	Day (OOHW)								
	OOHW Period 1								
	OOHW Period 2								
Additional mitigation measures	Standard Hours	-	-	-	-	-	-	-	-
	Day (OOHW)	-	-	-	-	-	-	-	-
	OOHW Period 1	-		-	-	-	-	-	-
	OOHW Period 2	-		-	-			-	-

Abbreviation	Measure
N	Notification
SN	Specific notifications
PC	Phone calls
IB	Individual briefings
RO	Respite offer
R1	Respite period 1
R2	Respite period 2
DR	Duration respite
AA	Alternative accommodation
V	Verification

Transport for NSW

Noise Estimator (Individual Plant)

Please input information into yellow cells
Please pick from drop-down list in orange cells

Project name	M12W Rock Crushing - Main alignment
Scenario name	Rock crushing activity- CAF 018
Receiver address	Farmingdale Court Caddenham
Select area ground type	Undeveloped green field (rural areas with isolated dwellings)
Select type of background noise level input	User input

Noise area category		Representative Noise Environment	User Input
RBL or LA90 Background level (dB(A))	Day		40
	Evening		36
	Night		31
LAeq(15minute) Noise mangement level (dB(A))	Day		50
	Day (OOHW)		45
	Evening		41
	Night		36

Is all plant at the same representative distance to the receiver? Y/N	Y
Representative distance (m)	547

All at Representative Distance

Steps:
1. Enter project name (cell C5).
2. Enter scenario name (cell C10).
3. Enter receiver address (cell C11).
4. Select area ground type (cell C12) - water, undeveloped green fields (e.g. rural areas with isolated dwellings) or developed settlements (e. g. urban and suburban areas)
5. Select the type of background noise level input - Representative noise environment (to make assumptions) or user input (when a noise monitoring data is available)
   (a) where representative noise environment is selected - select the appropriate noise area category (cell C16). The worksheet titled 'Representative Noise Environ.' provides a number of examples to help select the noise area category.
   (b) where user input is selected - enter the measured background noise level for each time period (cells D17 to D19).
6. Is all plant at the same representative distance to the receiver? Select Y or N (cell C24)
   (a) where Y is selected - enter the representative distance in cell C25.
   (b) where N is selected - go to step #7
7. For the scenario (e.g. shallow excavation), select plant from the drop-down list in cells A28 to A47 (e.g. dump trucks + excavator).
   (a) enter quantity for each selected plant in cells D28 to D47.
   (b) where N is selected from step #6 - enter the distance to receiver for each individual plant in cells E28 to E47.
   (c) is there line of sight to receiver? select from drop down list in cells F28 to F47. Solid barrier can be in the form of road cutting, solid construction hoarding, acoustic curtain, timber lapped and capped fence, shipping container, site office, etc. Please note that vegetation and trees are not considered to be a form of solid barrier.
8. Identify the level above background and/or noise management level (see rows 57 to 62).
9. Identify and implement standard mitigation measures where feasible and reasonable. Include any shielding implemented as part of the standard mitigation measures by changing the selection in the 'Is there line of sight to receiver' drop-down list.
10. Identify and implement feasible and reasonable additional mitigation measures (see rows 63 to 65).
11. Document a summary report detailing
   (a) project description (including location, duration, hours of work, construction methodology, plant, potentially impacted receivers, etc.).
   (b) background noise levels
   (c) noise management levels
   (d) predicted noise levels for each time period.
   (e) sleep disturbance affected distance for night works.
   (f) mitigation measures.
   (g) team member responsible for implementing mitigation measures and managing noise and vibration.

Type/ model plant (See Sources Sheet)	SWL LAeq (dB(A))	SPL @7m (dB(A))	Quantity	Individual distance to receiver (m)	Is there line of sight to receiver? Y/N	Quantity correction (dB(A))	Shielding correction (dB(A))	Distance used in calculation (m)	Contribution SPL (dB(A))
Rock crusher	118	93	1	547	No (behind substantial solid barrier)	0	-10	547	34
Tracked Excavator	110	85	1	547	No (behind substantial solid barrier)	0	-10	547	26
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888

Total SPL LAeq(15minute) (dB(A))	34

		Residential receiver	Non-residential receivers						
			Classroom at schools and other educational institutions	Hospital wards and operating theatres	Place of worship	Active recreation	Passive recreation	Industrial premise	Offices, retail outlets
Noise Management Level (dB(A))	Standard hours	50	55	65	55	65	60	75	70
	Day (OOHW)	45	55	65	55	65	60	75	70
	OOHW Period 1	41		65	55	65	60	75	70
	OOHW Period 2	36		65	55			75	70
Level above background (dB(A))	Standard hours								
	Day (OOHW)								
	OOHW Period 1								
	OOHW Period 2	3							
Level above NML (dB(A))	Standard hours								
	Day (OOHW)								
	OOHW Period 1								
	OOHW Period 2								
Additional mitigation measures	Standard Hours	-	-	-	-	-	-	-	-
	Day (OOHW)	-	-	-	-	-	-	-	-
	OOHW Period 1	-		-	-	-	-	-	-
	OOHW Period 2	-		-	-			-	-

Abbreviation	Measure
N	Notification
SN	Specific notifications
PC	Phone calls
IB	Individual briefings
R O	Respite offer
R 1	Respite period 1
R 2	Respite period 2
DR	Duration respite
AA	Alternative accommodation
V	Verification

Transport for NSW

Noise Estimator (Individual Plant)

Steps:
1. Enter project name (cell C5).
2. Enter scenario name (cell C10).
3. Enter receiver address (cell C11).
4. Select area ground type (cell C12) - water, undeveloped green fields (e.g. rural areas with isolated dwellings) or developed settlements (e. g. urban and suburban areas)
5. Select the type of background noise level input - Representative noise environment (to make assumptions) or user input (when a noise monitoring data is available)
   (a) where representative noise environment is selected - select the appropriate noise area category (cell C16). The worksheet titled 'Representative Noise Environ.' provides a number of examples to help select the noise area category.
   (b) where user input is selected - enter the measured background noise level for each time period (cells D17 to D19).
6. Is all plant at the same representative distance to the receiver? Select Y or N (cell C24)
   (a) where Y is selected - enter the representative distance in cell C25.
   (b) where N is selected - go to step #7
7. For the scenario (e.g. shallow excavation), select plant from the drop-down list in cells A28 to A47 (e.g. dump trucks + excavator).
   (a) enter quantity for each selected plant in cells D28 to D47.
   (b) where N is selected from step #6 - enter the distance to receiver for each individual plant in cells E28 to E47.
   (c) is there line of sight to receiver? select from drop down list in cells F28 to F47. Solid barrier can be in the form of road cutting, solid construction hoarding, acoustic curtain, timber lapped and capped fence, shipping container, site office, etc. Please note that vegetation and trees are not considered to be a form of solid barrier.
8. Identify the level above background and/or noise management level (see rows 57 to 62).
9. Identify and implement standard mitigation measures where feasible and reasonable. Include any shielding implemented as part of the standard mitigation measures by changing the selection in the 'is there line of sight to receiver' drop-down list.
10. Identify and implement feasible and reasonable additional mitigation measures (see rows 63 to 65).
11. Document a summary report detailing
   (a) project description (including location, duration, hours of work, construction methodology, plant, potentially impacted receivers, etc.).
   (b) background noise levels
   (c) noise management levels
   (d) predicted noise levels for each time period.
   (e) sleep disturbance affected distance for night works.
   (f) mitigation measures.
   (g) team member responsible for implementing mitigation measures and managing noise and vibration.

Please input information into yellow cells
Please pick from drop-down list in orange cells

Project name	M12W Rock Crushing - Main alignment
Scenario name	Crushing activity CAP 009
Receiver address	Farmingdale Court Caddenham
Select area ground type	Undeveloped green fields (rural areas with isolated dwellings)
Select type of background noise level input	User input

Noise area category		Representative Noise Environment	User Input
RBL or L_{A90} Background level (dB(A))	Day		
	Evening		34
	Night		35
$L_{Aeq(15minute)}$ Noise mangement level (dB(A))	Day		31
	Day (OOHW)		44
	Evening		39
	Night		40
			36

Is all plant at the same representative distance to the receiver? Y/N	Y
Representative distance (m)	560

All at Representative Distance

Type/ model plant (See Sources Sheet)	SWL L_{Aeq} (dB(A))	SPL @7m (dB(A))	Quantity	Individual distance to receiver (m)	Is there line of sight to receiver? Y/N	Quantity correction (-dB(A))	Shielding correction (dB(A))	Distance used in calculation (m)	Contribution SPL (dB(A))
Rock crusher	118	93	1	560	No (behind solid barrier)	0	-5	560	39
Tracked Excavator	110	85	1	560	No (behind solid barrier)	0	-5	560	31
					Yes	0	0		-inf
					Yes	0	0		-inf
					Yes	0	0		-inf
					Yes	0	0		-inf
					Yes	0	0		-inf
					Yes	0	0		-inf
					Yes	0	0		-inf
					Yes	0	0		-inf
					Yes	0	0		-inf
					Yes	0	0		-inf
					Yes	0	0		-inf
					Yes	0	0		-inf
					Yes	0	0		-inf
					Yes	0	0		-inf
					Yes	0	0		-inf
					Yes	0	0		-inf
					Yes	0	0		-inf
					Yes	0	0		-inf

Total SPL $L_{Aeq(15minute)}$ (dB(A))	39

		Residential receiver	*Non-residential receivers*						
			Classroom at schools and other educational institutions	*Hospital wards and operating theatres*	*Place of worship*	*Active recreation*	*Passive recreation*	*Industrial premise*	*Offices, retail outlets*
Noise Management Level (dB(A))	Standard hours	44	55	65	55	65	60	75	70
	Day (OOHW)	39	55	65	55	65	60	75	70
	OOHW Period 1	40		65	55	65	60	75	70
	OOHW Period 2	36		65	55			75	70
Level above background (dB(A))	Standard hours	5							
	Day (OOHW)	5							
	OOHW Period 1	4							
	OOHW Period 2	8							
Level above NML (dB(A))	Standard hours								
	Day (OOHW)	0							
	OOHW Period 1								
	OOHW Period 2	3							
Additional mitigation measures	Standard Hours	-	-	-	-	-	-	-	-
	Day (OOHW)	-	-	-	-	-	-	-	-
	OOHW Period 1	-		-	-	-	-	-	-
	OOHW Period 2	N		-	-			-	-

Abbreviation	Measure
N	Notification
SN	Specific notifications
PC	Phone calls
IB	Individual briefings
RO	Respite offer
R1	Respite period 1
R2	Respite period 2
DR	Duration respite
AA	Alternative accommodation
V	Verification

Transport for NSW

Noise Estimator (Scenario)

Steps:
1. Enter project name (cell C9).
2. Enter scenario name (cell C10).
3. Enter receiver address (cell C11).
4. Select area ground type (cell C12) - water, undeveloped green fields (e.g. rural areas with isolated dwellings) or developed settlements (e.g. urban and suburban areas)
5. Select type of background noise level input - Reprentative noise environment (to make assumptions) or user input (where noise monitoring data is available):
   (a) where representative noise environment is selected - select the appropriate noise area category (cell C16). The worksheet titled 'Representative Noise Environ.' provides a number of examples to help select the noise area category.
   (b) where user input is selected - enter the measured background noise level for each time period (cells D17 to D19).
6. Enter the representative distance in cell C24.
7. Select scenario from the drop-down list in cells A27.
   (a) is there line of sight to receiver? Select from drop down list in cells F27. Solid barrier can be in the form of road cutting, solid construction hoarding, acoustic curtain, timber lapped and capped fence, shipping container, site office, etc. Please note that vegetation and trees are not considered to be a form of solid barrier.
8. Identify the level above background and/or noise mangement level (see rows 36 to 41).
9. Identify and implement standard mitigation measures where feasible and reasonble. Include any shileiding implemented as part of the standard mitigation measures by changing the selection in the 'Is there line of sight to receiver' drop-down list.
10. Identify and implement feasible and reasonable additional mitigation measures (see rows 42 to 44).
11. Document a summary report detailing:
   (a) project description (including location, duration, hours of work, construction methodology, plant , potentially impacted receivers, etc.).
   (b) background noise levels.
   (c) noise management levels .
   (d) predicted noise levels for each time period.
   (e) sleep disturbance affected distance for night works.
   (f) mitigation measures.
   (g) team member responsible for implementing mitigation measures and managing noise and vibration.

Please input information into yellow cells
Please pick from drop-down list in orange cells

Project name	M12 West
Scenario name	AF2 Operation
Receiver address	1953-2109 Elizabeth Drive Badgerys Creek
Select area ground type	Undeveloped green fields (rural areas with isolated dwellings)
Select type of background noise level input	User Input

		Representative Noise Environment	User Input
Noise area category			
RBL or L_{A90} Background level (dB(A))	**Day**		52
	Evening		44
	Night		38
$L_{Aeq(15minute)}$ Noise mangement level (dB(A))	**Day**		62
	Day (OOHW)		57
	Evening		49
	Night		43

Representative distance (m)	184

Scenario	SWL L_{Aeq} (dB(A))	Is there line of sight to receiver?	Shielding correction (dB(A))	Distance used in calculation (m)	Contribution SPL (dB(A))
Crushing plant	118	Yes	0	184	58

Total SPL $L_{Aeq(15minute)}$ (dBA)	***58***

		Residential receiver	Non-residential receivers						
			Classroom at schools and other educational institutions	Hospital wards and operating theatres	Place of worship	Active recreation	Passive recreation	Industrial premise	Offices, retail outlets
Noise Management Level (dB(A))	**Standard hours**	*62*	55	65	55	65	60	75	70
	Day (OOHW)	*57*	55	65	55	65	60	75	70
	OOHW Period 1	*49*		65	55	65	60	75	70
	OOHW Period 2	*43*		65	55			75	70
Level above background (dB(A))	**Standard hours**	*6*							
	Day (OOHW)	*6*							
	OOHW Period 1	*14*							
	OOHW Period 2	*20*							
Level above NML (dB(A))	**Standard hours**		3		3				
	Day (OOHW)	*1*	3		3				
	OOHW Period 1	*9*			3				
	OOHW Period 2	*15*			3				
Additional mitigation measures	**Standard Hours**	-	-	-	-	-	-	-	-
	Day (OOHW)	-	-	-	-	-	-	-	-
	OOHW Period 1	*N, R1, DR*		-	-	-	-	-	-
	OOHW Period 2	*V, IB, N, PC, SN, R2, DR*		-	N			-	-

Abbreviation	Measure
N	Notification
SN	Specific notifications
PC	Phone calls
IB	Individual briefings
RO	Respite offer
R1	Respite period 1
R2	Respite period 2
DR	Duration respite
AA	Alternative accommodation
V	Verification

Appendix J –Ancillary Facility Checklist

CONSTRUCTION ANCILLARY FACILITY CHECKLIST

FOR

M12 Motorway (West), The Northern Road to Badgerys Creek – Crushing Activities

Contract No: 20.0000303606.2282

DOCUMENT CONTROL

APPROVALS

NAME	TITLE	SIGNATURE
Kimberley Purkiss	CPBGG JV Environmental Manager	
Andrew Brajlih	CPBGG JV Senior Environmental Advisor	

SCHEDULE OF REGISTERED HOLDERS

COPY NO	HOLDER TITLE / NAME	DATE TRANSMITTED
1	TfNSW	
2	CPBGG JV	
3		
4		
5		

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REVISION REGISTER

REVISION	REV DATE	REVISION DETAILS
A	11/01/2023	Initial Submission
B	27/10/223	Amendments to CAF001 – CAF 008 locations
C	23/11/2023	Addition of CAF 009 crushing location

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1 INTRODUCTION

1.1 Purpose

The purpose of this Construction Ancillary Facility Checklist is to assess the compliance of the proposed construction ancillary facilities (CAF 001-009) with the relevant Conditions of Approval (CoA) of the Planning Approval for the M12 Motorway (SSI 9364) and TfNSW QA Specification G36 Environmental Management.

1.2 Definitions

TERM	DEFINITION
Environmental Assessment Documentation	The Project was assessed as part of an EIS, Submission Report, Amendment Report, ARSR, ARSR amendment report and the M12 Motorway – West Section Detailed Design Consistency Assessment (October 2021) which are herein collectively referred to as the Environmental Assessment Documentation.
Construction	Includes all activities required to construct the CSSI as described in the documents listed in **Condition A1,** including commissioning trials of equipment and temporary use of any part of the CSSI, but excluding **Low Impact Work** which is carried out or completed prior to approval of the CEMP, works approved under a **Site Establishment Management Plan,** demolition of acquired residential houses, structures and sheds, and works specified in **Appendix B** and approved under an environmental management plan(s) in accordance with **Condition A24**.
Construction Ancillary Facility	A temporary facility for construction of the CSSI including an office and amenities compound, construction compound, material crushing and screening plant, concrete and asphalt batching plant, materials storage compound, maintenance workshop, testing laboratory, material stockpile area, access and car parking facilities and utility connections to the facility. *Note: Where an approved CEMP contains a stockpile management protocol, a material stockpile area located within the construction boundary is not considered to be an ancillary facility.*
Construction boundary	The area physically affected by works as described in the documents listed in **Condition A1**.
Heavy Vehicle	Has the same meaning as in the *Heavy Vehicle National Law 2013* (NSW).
Highly noise affected	As defined in the *Interim Construction Noise Guideline* (DECC, 2009).

TERM	DEFINITION
Highly noise intensive works	Works which are defined as annoying under the *Interim Construction Noise Guideline* (DECC, 2009) including: (a) use of power saws, such as used for cutting timber, rail lines, masonry, road pavement or steel work; (b) grinding metal, concrete or masonry; (c) rock drilling; (d) line drilling; (e) vibratory rolling; (f) bitumen milling or profiling; (g) jackhammering, rock hammering or rock breaking; and (h) impact piling.
Landowner	Has the same meaning as "owner" in the *Local Government Act 1993* (NSW) and in relation to a building means the owner of the building.
Local road	Any road that is not defined as a classified road under the *Roads Act 1993* (NSW).
Minor Construction Ancillary Facilities	Lunch sheds, office sheds, portable toilet facilities, and the like that meet the requirements of Condition A20
Sensitive receivers	Includes residences, educational institutions (including preschools, schools, universities, TAFE colleges), health care facilities (including nursing homes, hospitals), religious facilities (including churches), child care centres and passive recreation areas (including outdoor grounds used for teaching). Receivers that may be considered to be sensitive include commercial premises (including film and television studios, research facilities, entertainment spaces, temporary accommodation such as caravan parks and camping grounds, restaurants, office premises, and retail spaces), and industrial premises as identified by the Planning Secretary.
Work	Any physical work to build or facilitate the building of the CSSI, including low impact work, environmental management measures and utility works. However, it does not include activities that inform or enable detailed design of the CSSI and generate noise that is no more than 5 dB(A) above the rating background level at any sensitive receiver.

2 CONSTRUCTION ANCILLARY FACILITY DESCRIPTION

2.1 Location

The proposed construction ancillary facilities (CAF) are located at:

- CAF 001 – Mainline – Cut/fill 02
- CAF 002 – Mainline – Cut/fill 03
- CAF 003 – Mainline – Cut/fill 04 and Cut/fill 5
- CAF 004- Mainline – Cut/fill 06
- CAF 005- Mainline – Cut/fill 07
- CAF 006- Mainline – Cut/fill 07
- CAF 007- Mainline – Cut/fill 07
- CAF 008 Mainline – Cut/fill 07
- CAF 009 AAR – AAR A to AAR E

The sites are located within the approved Construction Boundary (refer to **Error! Reference source not found.** to **Error! Reference source not found.**), however not within a construction ancillary facility identified in the Environmental Assessment Documentation.

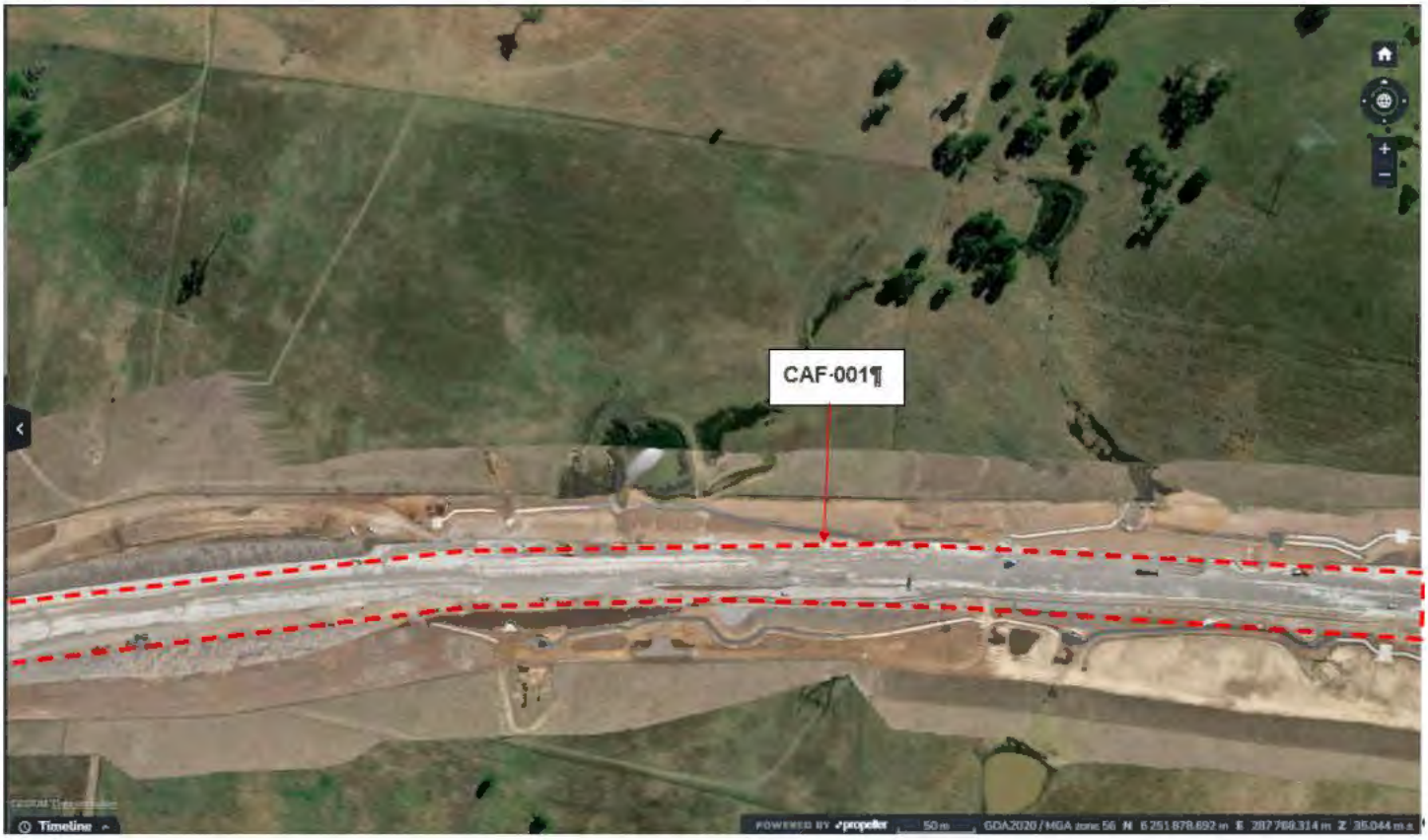

Figure 1-1 – CAF 001 indicative site area

Figure 1-2 – CAF 002 indicative site area

Figure 1-32 – CAF 003 indicative site area

Figure 1-4 – CAF 003 indicative site area

Figure 1-5 – CAF 004 indicative site area

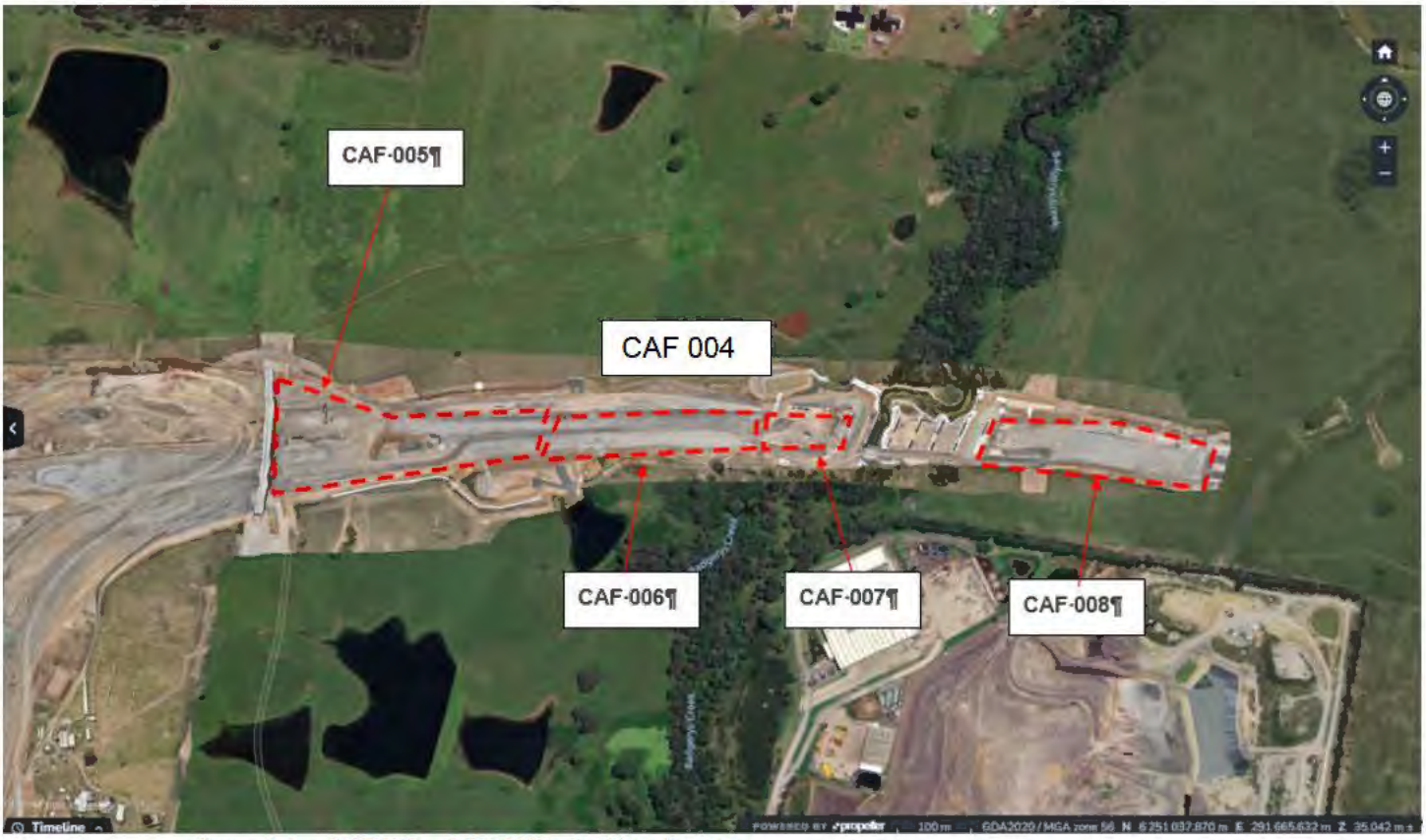

Figure 1-6 – CAF 005 – CAF 008 indicative site area

Figure 1-5 – CAF 004 indicative site area

Proposed activities

CPBGG JV propose the following construction ancillary facilities outlined in Table 1-1 for material crushing and screening plant. The facilities will be implemented throughout the earth works stage of the project.

AF	Location	Approximate size (ha)	Purpose	Access Arrangements
CAF 001	West of Luddenham Road located between estimated chainage 10950.000 and 12150.00	<1	Crushing and screening of rock to be re-used on site.	Access in and out will be via Luddenham Road. Left in and left out.
CAF 002	West of Luddenham Road located between estimated chainage 12150.000 and 12600,000	<1	Crushing and screening of rock to be re-used on site.	Access in and out will be via Luddenham Road. Left in and left out.
CAF 003	West and east of Luddenham Road located between estimated chainage 12600.000 and 139500.000	<1	Crushing and screening of rock to be re-used on site.	Access in and out will be via Luddenham Road. Left in and left out.
CAF 004	Interchange between estimated chainage 14000.000 and 154500.000	<1	Crushing and screening of rock to be re-used on site.	Access in and out will be via the project alignment (AF2) off Elizabeth Drive. Left in and left out.

AF	Location	Approximate size (ha)	Purpose	Access Arrangements
CAF 005	West of Badgerys Creek between estimated chainage 15550.000 and 15850.000	<1	Crushing and screening of rock to be re-used on site.	Access in and out will be via the project alignment (AF2) off Elizabeth Drive. Left in and left out.
CAF 006	West of Badgerys Creek between estimated chainage 15850.000 and 16100.000	<1	Crushing and screening of rock to be re-used on site.	Access in and out will be via the project alignment (AF2) off Elizabeth Drive. Left in and left out.
CAF 007	West of Badgerys Creek between estimated chainage 16150.000 and 16250.000	<1	Crushing and screening of rock to be re-used on site.	Access in and out will be via the project alignment (AF2) off Elizabeth Drive. Left in and left out.
CAF 008	East of Badgerys Creek estimated between chainage 16450.000 and 16600.000	<1	Crushing and screening of rock to be re-used on site.	Access in and out will be via the project alignment (AF2) off Elizabeth Drive. Left in and left out.
CAF 009	Interchange to Bridge 04	<1	Crushing and screening of material to be used on site	Access in and out will be via the project alignment (AF2) off Elizabeth Drive. Left in and left out.

3 CONSTRUCTION ANCILLARY FACILITY ASPECT AND IMPACT

Table 3-1 provides a review of the existing environment and potential impacts associated with theproposed construction ancillary facilities (CAF 001 – CAF 009) -- across the Main Alignment of M12 West.

Table 3-1 Environmental aspect and impact review

ASPECT	EXISTING ENVIRONMENT	POTENTIAL IMPACTS	ADDITIONAL CONTROLS MEASURES
Site establishment	Sites will not require establishment as crusher will be placed progressively in areas where cut and fill activities have been completed	Sites will not require establishment	No additional control measures are required to manage site establishment impacts from the proposal
Traffic and transport	CAF sites will only consist of internal vehicle movements and movements of crusher across Luddenham Road through Gate 3a. This is not anticipated to increase traffic volumes	No potential increase to current traffic conditions on Luddenham Road	No additional control measures are requiredto manage traffic impacts from the proposal.

Noise and Vibration	For the purpose of this assessment the most conservative option Noise Catchment Area NCA07. The construction noise management levels in NCA07 are: • 34 dBA during standard construction hours • 35 dBA during evening period, and • 39 dBA during the night period There are no other sensitive receivers within 500m of any CAF sites. CAF 001 - The nearest residential receiver located approximately 780 m away from CAF 001 CAF 002 - The nearest residential receiver located approximately 190 m away from CAF 002 CAF 003 - The nearest residential receiver located approximately 180 m away from CAF 003. CAF 004 The nearest residential receiver located approximately 430 m away from CAF 004 CAF 005 The nearest residential receiver located approximately 600 m away from CAF 005 CAF 006 The nearest residential receiver located approximately 530 m away from CAF 006 CAF 007 The nearest residential receiver located approximately 560 m away from CAF 007 CAF 008 The nearest residential receiver located approximately 670 m away from CAF 008 CAF 009 The nearest residential receiver located approximately 560 m away from CAF 009	Refer to Attachment A – Noise Screening Assessment. All CAF sites are consistent with that of the standard construction noise and vibration (Attachment A) with the exception of CAF003 at the closest receiver. The closest receiver is currently unoccupied making the next closest receiver 290 m away from CAF003 and within standard construction noise vibration. The residence will be routinely monitored to confirm occupation. Crushing activities are currently scheduled for standard construction hours only and respite periods will be adhered to for high noise locations.	No additional control measures are required to manage noise and vibration impacts from the proposal.

Light Spill / Visual Amenity	CAF 001 - The nearest residential receiver located approximately 780 m away from CAF 001 CAF 002 - The nearest residential receiver located approximately 190 m away from CAF 002 CAF 003 - The nearest residential receiver located approximately 180 m away from CAF 003. CAF 004 The nearest residential receiver located approximately 430 m away from CAF 004 CAF 005 The nearest residential receiver located approximately 600 m away from CAF 005 CAF 006 The nearest residential receiver located approximately 530 m away from CAF 006 CAF 007 The nearest residential receiver located approximately 560 m away from CAF 007 CAF 008 The nearest residential receiver located approximately 670 m away from CAF 008 CAF 009 The nearest residential receiver located approximately 560 m away from CAF 009	Additional lighting around the site for personnel safety and crime prevention inaccordance with crime prevention through environmental design (CPTED) principles. Lighting could result in light spill impacting sensitive receivers. Crushing works are currently scheduled to occur within standard construction hours only, therefore the use of the CAFs should not impact light spill to sensitive receivers.	No additional control measures are required to manage light spill and visual amenity.
Flora and fauna	No mapped native vegetation or trees requireclearing for the occupation of the CAFs. There are no threatened species, or theirhabitat known at the CAFs. There are no exclusion zones at the CAFs.	There will be no impact to flora and fauna resulting from the proposal.	There are no additional control measures required

Soil and water	Proposed site will be implemented following surface excavation and earthmoving that will be required to be completed as part of project deign. No additional groundbreaking activities or delivery and stockpile of materials are proposed for the useof the CAFs. All CAFs will utilise existing HV access roads.	There will be no impact to soil or waterresulting from the proposal.	The haul roads areas will be monitored and maintained if the use of thesite results in impacts to water quality. The refuelling and maintenance of plant and equipment, and any other activity which may result in spillage of chemical fuel or lubricant will be undertaken in a designated sealed bunded area where spill kits are available. No other additional control measures are required to manage soil and water impacts from the proposal.
Contaminated land	There are no identified Areas of Environmental Interest associated with the CAF locations. Areas the CAF will be used have progressed into natural soils and no unexpected, contaminated land finds are anticipated.	There will be no impact to contaminated landresulting from the proposal.	Unexpected finds protocol will be utilised for standard use/ operation. No additional control measures are required to manage contaminated land impacts from the proposal.
Cultural heritage	The locations of the CAFs have been disturbed by the previous rural / residential land use and current construction activities There are no non-Aboriginal heritage items previously identified at the site.	There will be no further impact to impact to Aboriginal and non-Aboriginal cultural heritage resulting from the proposed CAF locations.	Unexpected finds protocol will be utilised for standard use/ operation. No additional control measures are required to manage Aboriginal and non-Aboriginal cultural heritage impacts from the proposal unless recommended by the Project archaeologist.
Air quality	Whilst operation of CAFS is dust generating it is unlikely to be notice an increase in comparison to current project works.	There will be no air quality impacts to surrounding residential receivers resulting from the proposal.	Dust suppression measures will continue to be used across the entirety of the site inclusive of the areas of the proposed CAFs. The site dust monitor will continue to be monitored at the site.

Flooding	All CAFs are located outside EIS modelled probable maximum flood level with the exception of CAF 009 which is adjacent Badgerys Creek.	CAF 008 – in the case flooding occurs all equipment will be removed from the area prior to any forecast flooding. CAF 001 – CAF 007 and CAF 009 - There will be no impact to the proposal fromflooding.	Weather surveillance and monitoring of creek water level during inspections
Waste Management	No waste management facilities will be installed for CAF 001 – CAF 009. Waste facilities will be located at existing MAFs.	There will be no additional impacts for waste generation.	Waste collections will be arranged during office hours. Waste will be separated intorecycling and non-recycling items.

4 CONSTRUCTION ANCILLARY FACILITY COMPLIANCE CHECKLIST

4.1 Type and Location

Table 4-1 Construction Ancillary Facility Checklist

ID	CRITERIA	COMMENT / DETAILS / ADDITIONAL CONTROLS
Section A - Type and Location		
A1	Is the facility identified by description and location in the EIS?	☐Yes – Assessment not required ☒No – Proceed to A2
A2	Is the facility a minor ancillary facility?	☐ Yes – Assessment against criteria in Condition A15 not required. Proceed to Section D ☒No - Assess suitability of site against criteria in Condition A15 in Section B
A3	Were the construction ancillary facility(ies) established for any early works listed in Appendix B of the Infrastructure Approval?	☐Yes – Assessment against criteria in Condition A15 not required. Proceed to Section B ☒ No - Assess suitability of site against criteria in Condition A15 in Section B
Section B – Additional Construction Ancillary Facilities Assessment Criteria ☐ Not applicable for minor construction ancillary facilities **CoA A15** Construction ancillary facilities (excluding minor construction ancillary facilities established under Condition A20) that are not identified by description and location in the documents listed in Condition A1 may only be established and used in each case if:		
B1	(a) they are located within or immediately adjacent to the construction boundary; and	☒Yes – Proceed to B2 ☐No – Review consistency against documents listed in A1 before proceeding.
B2	(b) they are not located next to a sensitive receiver(s) (including where an access road is between the facility and the receiver(s)), unless the sensitive receiver(s) (both the landowner(s) and occupier(s)2) have given written acceptance to the carrying out of the relevant facility in the proposed location; and	☒Yes – Proceed to B3 ☐No – Review consistency against documents listed in A1 before proceeding.
B3	(c) they have no impacts on heritage items (including areas of archaeological sensitivity), threatened species, populations or ecological communities beyond the impacts approved under the terms of this approval; and	☒Yes – Proceed to B4 ☐No – Review consistency against documents listed in A1 before proceeding.
B4	(d) the establishment and use of the facility can be carried out and managed within the outcomes set out in the terms of this approval, including in relation to environmental, social and economic impacts.	☒Yes – Prepare a Site Establishment Management Plan in accordance with **Condition A16** for endorsement by the ER ☐No – Review consistency against documents listed in A1 before proceeding.

ID	CRITERIA	COMMENT / DETAILS / ADDITIONAL CONTROLS
Section C - Use of Construction Ancillary Facilities ☐Not applicable for minor construction ancillary facilities established under Condition A20 **CoA A18** The use of a construction ancillary facility for construction (excluding minor construction ancillary facilities established under Condition A20 and construction ancillary facilities established for the purposes of early works in accordance with Condition A24) must not commence until the CEMP required by Condition C1, relevant CEMP Sub-plans required by Condition C4 and relevant Construction Monitoring Programs required by Condition C11 have been approved by the Planning Secretary. **CoA A19** Construction ancillary facilities established for the purposes of early works in accordance with Condition A24 cannot be used for construction until the CEMP required by Condition C1, relevant CEMP Sub-plans required by Condition C4 and relevant Construction Monitoring Programs required by Condition C11 have been approved by the Planning Secretary. Condition A18 and A19 do not apply to the use of construction ancillary facilities where the ER has determined that the use of the facility will have a minimal impact on the environment and community.		
C1	Have the CEMP required by Condition C1, relevant CEMP Sub-plans required by Condition C4 and relevant Construction Monitoring Programs required by Condition C11 have been approved by the Planning Secretary?	☒Yes – Construction Ancillary Facility may be used for construction ☐No – Proceed to C2
C2	Is the proposed use of the construction ancillary facility (prior to approval of the CEMP, CEMP Sub-plans and construction Monitoring Programs) likely to result in minimal impact on the environment and community?	☒Yes – The construction ancillary facility may be used for the proposed activities the ER determines are likely to result in minimal impact on the environment and community ☐No – the use of the facility must not occur until the CEMP, CEMP Sub-plans and construction Monitoring Programs have been approved by the Planning Secretary
Section D - Minor Construction Ancillary Facilities **CoA A20** Lunch sheds, office sheds, portable toilet facilities, and the like, can be established and used where they have been assessed in the documents listed in Condition A1 or satisfy the following criteria:		
D1	**A20** Lunch sheds, office sheds, portable toilet facilities, and the like, can be established and used where they have been assessed in the documents listed in Condition A1 or satisfy the following criteria:	Not applicable
D2	(a) are located within or adjacent to the construction boundary; and	Not applicable
D3	(b) have been assessed by the ER to have -	Not applicable

	(i) minor amenity impacts to surrounding residences and businesses, after consideration of matters such as compliance with the Interim Construction Noise Guideline (DECC, 2009), traffic and access impacts, dust and odour impacts, and visual (including light spill) impacts, and	Not applicable
D4	(ii) minor environmental impact with respect to waste management, soil, water and flooding, and	Not applicable
D5	(iii) no impacts on heritage items (including areas of archaeological sensitivity), threatened species, populations or ecological communities beyond the impacts approved under the terms of this approval.	Not applicable

5 ASSESSMENT OUTCOME

CONDITION	CATEGORY	ENDORSEMENT OR APPROVAL
☒CoA A15	Additional construction ancillary facilities	ER Endorsement of SEMP . SEMP to be updated with checklist in next review period.
☐CoA A17	Construction ancillary facility(ies) has been established for any early works listed in Appendix B	ER Endorsement of SEMP
☐ CoA A20	Minor Construction Ancillary Facilities	ER Endorsement of this assessment

6 ENVIRONMENTAL REPRESENTATIVE ENDORESMENT

NAME	DATE	SIGNATURE	COMMENT

ATTACHMENT A – NOISE SCREENING ASSESSMENT

Transport for NSW

Noise Estimator (Individual Plant)

Please input information into yellow cells
Please pick from drop-down list in orange cells

Project name	M12W Rock Crushing - Main alignment
Scenario name	Rock crushing activity- CAF 001
Receiver address	2594-3776 The Northern Road, Luddenham
Select area ground type	Undeveloped green fields (rural areas with isolated dwellings)
Select type of background noise level input	User input

Noise area category		Representative Noise Environment	User Input
RBL or LA90 Background level (dB(A))	Day		44
	Evening		48
	Night		36
LAeq(15minute) Noise mangement level (dB(A))	Day		54
	Day (OOHW)		49
	Evening		53
	Night		41

Is all plant at the same representative distance to the receiver? Y/N	N
Representative distance (m)	194

Using Individual Distances!

Steps:
1. Enter project name (cell C5).
2. Enter scenario name (cell C10).
3. Enter receiver address (cell C11).
4. Select area ground type (cell C12) - water, undeveloped green fields (e.g. rural areas with isolated dwellings) or developed settlements (e. g. urban and suburban areas)
5. Select the type of background noise level input - Representative noise environment (to make assumptions) or user input (when a noise monitoring data is available)
   (a) where representative noise environment is selected - select the appropriate noise area category (cell C16). The worksheet titled 'Representative Noise Environ.' provides a number of examples to help select the noise area category.
   (b) where user input is selected - enter the measured background noise level for each time period (cells D17 to D19).
6. Is all plant at the same representative distance to the receiver? Select Y or N (cell C24)
   (a) where Y is selected - enter the representative distance in cell C25.
   (b) where N is selected - go to step #7
7. For the scenario (e.g. shallow excavation), select plant from the drop-down list in cells A28 to A47 (e.g. dump trucks + excavator).
   (a) enter quantity for each selected plant in cells D28 to D47.
   (b) where N is selected from step #6 - enter the distance to receiver for each individual plant in cells E28 to E47.
   (c) is there line of sight to receiver? select from drop down list in cells F28 to F47. Solid barrier can be in the form of road cutting, solid construction hoarding, acoustic curtain, timber lapped and capped fence, shipping container, site office, etc. Please note that vegetation and trees are not considered to be a form of solid barrier.
8. Identify the level above background and/or noise management level (see rows 57 to 62).
9. Identify and implement standard mitigation measures where feasible and reasonable. Include any shielding implemented as part of the standard mitigation measures by changing the selection in the 'Is there line of sight to receiver' drop-down list.
10. Identify and implement feasible and reasonable additional mitigation measures (see rows 63 to 65).
11. Document a summary report detailing
   (a) project description (including location, duration, hours of work, construction methodology, plant, potentially impacted receivers, etc.).
   (b) background noise levels
   (c) noise management levels
   (d) predicted noise levels for each time period.
   (e) sleep disturbance affected distance for night works.
   (f) mitigation measures.
   (g) team member responsible for implementing mitigation measures and managing noise and vibration.

Type/ model plant (See Sources Sheet)	SWL LAeq (dB(A))	SPL @7m (dB(A))	Quantity	Individual distance to receiver (m)	Is there line of sight to receiver? Y/N	Quantity correction (-dB(A))	Shielding correction (dB(A))	Distance used in calculation (m)	Contribution SPL (dB(A))
Rock crusher	118	93	1	700	No (behind schematic solid barrier)	0	-30	700	31
Tracked Excavator	110	85	1	700	No (behind schematic solid barrier)	0	-30	700	23
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888

Total SPL LAeq(15minute) (dB(A))	31

		Residential receiver	Non-residential receivers						
			Classroom at schools and other educational institutions	Hospital wards and operating theatres	Place of worship	Active recreation	Passive recreation	Industrial premise	Offices, retail outlets
Noise Management Level (dB(A))	Standard hours	54	55	65	55	65	60	75	70
	Day (OOHW)	49	55	65	55	65	60	75	70
	OOHW Period 1	53		65	55	65	60	75	70
	OOHW Period 2	41		65	55			75	70
Level above background (dB(A))	Standard hours								
	Day (OOHW)								
	OOHW Period 1								
	OOHW Period 2								
Level above NML (dB(A))	Standard hours								
	Day (OOHW)								
	OOHW Period 1								
	OOHW Period 2								
Additional mitigation measures	Standard Hours	-	-	-	-	-	-	-	-
	Day (OOHW)	-	-	-	-	-	-	-	-
	OOHW Period 1	-		-	-	-	-	-	-
	OOHW Period 2	-		-	-			-	-

Abbreviation	Measure
N	Notification
SN	Specific notifications
PC	Phone calls
IB	Individual briefings
R 0	Respite offer
R 1	Respite period 1
R 2	Respite period 2
DR	Duration respite
AA	Alternative accommodation
V	Verification

Transport for NSW

Noise Estimator (Individual Plant)

Please input information into yellow cells
Please pick from drop-down list in orange cells

Project name	M12W Rock Crushing - Main alignment
Scenario name	Rock crushing activity- CAF 002
Receiver address	765 Luddenham Road, Luddenham
Select area ground type	Undeveloped green fields (rural areas with isolated dwellings)
Select type of background noise level input	User Input

		Representative Noise Environment	User Input
Noise area category			
RBL or L_{A90} Background level (dB(A))	Day		40
	Evening		36
	Night		31
$L_{Aeq(15minute)}$ Noise mangement level (dB(A))	Day		50
	Day (OOHW)		45
	Evening		41
	Night		36

Is all plant at the same representative distance to the receiver? Y/N	N	
Representative distance (m)	194	*Using Individual Distances!*

Type/ model plant (See Sources Sheet)	SWL L_{Aeq} (dB(A))	SPL @7m (dB(A))	Quantity	Individual distance to receiver (m)	Is there line of sight to receiver? Y/N	Quantity correction (dBA)	Shielding correction (dBA)	Distance used in calculation (m)	Contribution SPL (dB(A))
Rock crusher	118	93	1	194	No (behind substantial solid barrier)	0	-10	194	48
Tracked Excavator	110	85	1	194	No (behind substantial solid barrier)	0	-10	194	40
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888

Total SPL $L_{Aeq(15minute)}$ (dB(A))	*48*

			Non-residential receivers						
		Residential receiver	*Classroom at schools and other educational institutions*	*Hospital wards and operating theatres*	*Place of worship*	*Active recreation*	*Passive recreation*	*Industrial premise*	*Offices, retail outlets*
Noise Management Level (dB(A))	Standard hours	*50*	55	65	55	65	60	75	70
	Day (OOHW)	*45*	55	65	55	65	60	75	70
	OOHW Period 1	*41*		65	55	65	60	75	70
	OOHW Period 2	*36*		65	55			75	70
Level above background (dB(A))	Standard hours	*8*							
	Day (OOHW)	*8*							
	OOHW Period 1	*12*							
	OOHW Period 2	*17*							
Level above NML (dB(A))	Standard hours								
	Day (OOHW)	*3*							
	OOHW Period 1	*7*							
	OOHW Period 2	*12*							
Additional mitigation measures	Standard Hours	-	-	-	-	-	-	-	-
	Day (OOHW)	-	-	-	-	-	-	-	-
	OOHW Period 1	*N, R1, DR*		-	-	-	-	-	-
	OOHW Period 2	*V, N, R2, DR*		-	-			-	-

Abbreviation	Measure
N	Notification
SN	Specific notifications
PC	Phone calls
IB	Individual briefings
RO	Respite offer
R1	Respite period 1
R2	Respite period 2
DR	Duration respite
AA	Alternative accommodation
V	Verification

Steps:

1. Enter project name (cell C9).
2. Enter scenario name (cell C10).
3. Enter receiver address (cell C11).
4. Select area ground type (cell C12) - water, undeveloped green fields (e.g. rural areas with isolated dwellings) or developed settlements (e .g. urban and suburban areas)
5. Select the type of background noise level input - Representative noise environment (to make assumptions) or user input (wher e noise monitoring data is available)
   (a) where representative noise environment is selected - select the appropriate noise area category (cell C16). The worksheet titled 'Representative Noise Environ.' provides a number of examples to help select the noise area category.
   (b) where user input is selected - enter the measured background noise level for each time period (cells D17 to D19).
6. Is all plant at the same representative distance to the receiver? Select Y or N (cell C24)
   (a) where Y is selected - enter the representative distance in cell C25.
   (b) where N is selected - go to step #7
7. For the scenario (e.g. shallow excavation), select plant from the drop-down list in cells A28 to A47 (e.g. dump trucks + excavator).
   (a) enter quantity for each selected plant in cells D28 to D47.
   (b) where N is selected from step #6 - enter the distance to receiver for each individual plant in cells E28 to E47.
   (c) is there line of sight to receiver? select from drop down list in cells F28 to F47. Solid barrier can be in the form of road cutting, solid construction hoarding, acoustic curtain, timber lapped and capped fence, shipping container, site office, etc. Please note that vegetation and trees are not considered to be a form of solid barrier.
8. Identify the level above background and/or noise mangement level (see rows 57 to 62).
9. Identify and implement standard mitigation measures where feasible and reasonable. Include any shielding implemented as part of the standard mitigation measures by changing the selection in the 'Is there line of sight to receiver' drop-down list.
10. Identify and implement feasible and reasonable additional mitigation measures (see rows 63 to 65).
11. Document a summary report detailing
    (a) project description (including location, duration, hours of work, construction methodology, plant , potentially impacted receivers, etc.).
    (b) background noise levels.
    (c) noise management levels .
    (d) predicted noise levels for each time period.
    (e) sleep disturbance affected distance for night works.
    (f) mitigation measures.
    (g) team member responsible for implementing mitigation measures and managing noise and vibration.

Transport for NSW

Noise Estimator (Individual Plant)

Steps:
1. Enter project name (cell C5).
2. Enter scenario name (cell C10).
3. Enter receiver address (cell C11).
4. Select area ground type (cell C12) - water, undeveloped green fields (e.g. rural areas with isolated dwellings) or developed settlements (e. g. urban and suburban areas)
5. Select the type of background noise level input - Representative noise environment (to make assumptions) or user input (when a noise monitoring data is available)
   (a) where representative noise environment is selected - select the appropriate noise area category (cell C16). The worksheet titled 'Representative Noise Environ.' provides a number of examples to help select the noise area category.
   (b) where user input is selected - enter the measured background noise level for each time period (cells D17 to D19).
6. Is all plant at the same representative distance to the receiver? Select Y or N (cell C24)
   (a) where Y is selected - enter the representative distance in cell C25.
   (b) where N is selected - go to step #7
7. For the scenario (e.g. shallow excavation), select plant from the drop-down list in cells A28 to A47 (e.g. dump trucks + excavator).
   (a) enter quantity for each selected plant in cells D28 to D47.
   (b) where N is selected from step #6 - enter the distance to receiver for each individual plant in cells E28 to E47.
   (c) is there line of sight to receiver? select from drop down list in cells F28 to F47. Solid barrier can be in the form of road cutting, solid construction hoarding, acoustic curtain, timber lapped and capped fence, shipping container, site office, etc. Please note that vegetation and trees are not considered to be a form of solid barrier.
8. Identify the level above background and/or noise management level (see rows 57 to 62).
9. Identify and implement standard mitigation measures where feasible and reasonable. Include any shielding implemented as part of the standard mitigation measures by changing the selection in the 'Is there line of sight to receiver' drop-down list.
10. Identify and implement feasible and reasonable additional mitigation measures (see rows 63 to 65).
11. Document a summary report detailing
   (a) project description (including location, duration, hours of work, construction methodology, plant, potentially impacted receivers, etc.).
   (b) background noise levels
   (c) noise management levels
   (d) predicted noise levels for each time period.
   (e) sleep disturbance affected distance for night works.
   (f) mitigation measures.
   (g) team member responsible for implementing mitigation measures and managing noise and vibration.

Please input information into yellow cells
Please pick from drop-down list in orange cells

Project name	M12W Rock Crushing - Main alignment
Scenario name	Rock crushing activity- CAF 003
Receiver address	765 Luddenham Road, Luddenham
Select area ground type	Undeveloped green fields (rural areas with isolated dwellings)
Select type of background noise level input	User input

Noise area category		Representative Noise Environment	User Input
RBL or LA90 Background level (dB(A))	Day		40
	Evening		36
	Night		31
LAeq(15minute) Noise mangement level (dB(A))	Day		50
	Day (OOHW)		45
	Evening		41
	Night		36

Is all plant at the same representative distance to the receiver? Y/N	N
Representative distance (m)	180

Using Individual Distances!

Type/ model plant (See Sources Sheet)	SWL LAeq (dB(A))	SPL @7m (dB(A))	Quantity	Individual distance to receiver (m)	Is there line of sight to receiver? Y/N	Quantity correction (-dB(A))	Shielding correction (dB(A))	Distance used in calculation (m)	Contribution SPL (dB(A))
Rock crusher	118	93	1	180	No (behind solid barrier)	0	-5	180	54
Tracked Excavator	110	85	1	180	No (behind solid barrier)	0	-5	180	46
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888

Total SPL LAeq(15minute) (dB(A))	54

		Residential receiver	Non-residential receivers						
			Classroom at schools and other educational institutions	Hospital wards and operating theatres	Place of worship	Active recreation	Passive recreation	Industrial premise	Offices, retail outlets
Noise Management Level (dB(A))	Standard hours	50	55	65	55	65	60	75	70
	Day (OOHW)	45	55	65	55	65	60	75	70
	OOHW Period 1	41		65	55	65	60	75	70
	OOHW Period 2	36		65	55			75	70
Level above background (dB(A))	Standard hours	14							
	Day (OOHW)	14							
	OOHW Period 1	19							
	OOHW Period 2	23							
Level above NML (dB(A))	Standard hours	4							
	Day (OOHW)	9							
	OOHW Period 1	13							
	OOHW Period 2	18							
Additional mitigation measures	Standard Hours	-	-	-	-	-	-	-	-
	Day (OOHW)	N, RI, DR	-	-	-	-	-	-	-
	OOHW Period 1	N, RI, DR		-	-	-	-	-	-
	OOHW Period 2	V, IN, N, PC, SN, RI, DR		-	-			-	-

Abbreviation	Measure
N	Notification
SN	Specific notifications
PC	Phone calls
IB	Individual briefings
RO	Respite offer
R1	Respite period 1
R2	Respite period 2
DR	Duration respite
AA	Alternative accommodation
V	Verification

Transport for NSW

Noise Estimator (Individual Plant)

Please input information into yellow cells	
Please pick from drop-down list in orange cells	

Project name	M12W Rock Crushing - Main alignment
Scenario name	Rock crushing activity- CAF 004
Receiver address	734-750 Luddenham Road, Luddenham
Select area ground type	Undeveloped green fields (rural areas with isolated dwellings)
Select type of background noise level input	User Input

		Representative Noise Environment	User Input
Noise area category			
RBL or L_{A90} Background level (dB(A))	Day		40
	Evening		36
	Night		31
$L_{Aeq(15minute)}$ Noise mangement level (dB(A))	Day		50
	Day (OOHW)		45
	Evening		41
	Night		36

Is all plant at the same representative distance to the receiver? Y/N	Y	
Representative distance (m)	430	All at Representative Distance

Type/ model plant (See Sources Sheet)	SWL L_{Aeq} (dB(A))	SPL @7m (dB(A))	Quantity	Individual distance to receiver (m)	Is there line of sight to receiver? Y/N	Quantity correction (dBA)	Shielding correction (dBA)	Distance used in calculation (m)	Contribution SPL (dB(A))
Rock crusher	118	93	1	430	No (behind substantial solid barrier)	0	-10	430	37
Tracked Excavator	110	85	1	430	No (behind substantial solid barrier)	0	-10	430	29
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888

Total SPL $L_{Aeq(15minute)}$ (dB(A))	38

		Residential receiver	Non-residential receivers: Classroom at schools and other educational institutions	Hospital wards and operating theatres	Place of worship	Active recreation	Passive recreation	Industrial premise	Offices, retail outlets
Noise Management Level (dB(A))	Standard hours	50	55	65	55	65	60	75	70
	Day (OOHW)	45	55	65	55	65	60	75	70
	OOHW Period 1	41		65	55	65	60	75	70
	OOHW Period 2	36		65	55			75	70
Level above background (dB(A))	Standard hours								
	Day (OOHW)								
	OOHW Period 1	2							
	OOHW Period 2	7							
Level above NML (dB(A))	Standard hours								
	Day (OOHW)								
	OOHW Period 1								
	OOHW Period 2	2							
Additional mitigation measures	Standard Hours	-	-	-	-	-	-	-	-
	Day (OOHW)	-	-	-	-	-	-	-	-
	OOHW Period 1	-		-	-	-	-	-	-
	OOHW Period 2	N		-	-			-	-

Abbreviation	Measure
N	Notification
SN	Specific notifications
PC	Phone calls
IB	Individual briefings
RO	Respite offer
R1	Respite period 1
R2	Respite period 2
DR	Duration respite
AA	Alternative accommodation
V	Verification

Steps:

1. Enter project name (cell C9).
2. Enter scenario name (cell C10).
3. Enter receiver address (cell C11).
4. Select area ground type (cell C12) - water, undeveloped green fields (e.g. rural areas with isolated dwellings) or developed settlements (e .g. urban and suburban areas)
5. Select the type of background noise level input - Representative noise environment (to make assumptions) or user input (wher e noise monitoring data is available)
   (a) where representative noise environment is selected - select the appropriate noise area category (cell C16). The worksheet titled 'Representative Noise Environ.' provides a number of examples to help select the noise area category.
   (b) where user input is selected - enter the measured background noise level for each time period (cells D17 to D19).
6. Is all plant at the same representative distance to the receiver? Select Y or N (cell C24)
   (a) where Y is selected - enter the representative distance in cell C25.
   (b) where N is selected - go to step #7
7. For the scenario (e.g. shallow excavation), select plant from the drop-down list in cells A28 to A47 (e.g. dump trucks + excavator).
   (a) enter quantity for each selected plant in cells D28 to D47.
   (b) where N is selected from step #6 - enter the distance to receiver for each individual plant in cells E28 to E47.
   (c) is there line of sight to receiver? select from drop down list in cells F28 to F47. Solid barrier can be in the form of road cutting, solid construction hoarding, acoustic curtain, timber lapped and capped fence, shipping container, site office, etc. Please note that vegetation and trees are not considered to be a form of solid barrier.
8. Identify the level above background and/or noise mangement level (see rows 57 to 62).
9. Identify and implement standard mitigation measures where feasible and reasonable. Include any shielding implemented as part of the standard mitigation measures by changing the selection in the 'Is there line of sight to receiver' drop-down list.
10. Identify and implement feasible and reasonable additional mitigation measures (see rows 63 to 65).
11. Document a summary report detailing
    (a) project description (including location, duration, hours of work, construction methodology, plant , potentially impacted receivers, etc.).
    (b) background noise levels.
    (c) noise management levels .
    (d) predicted noise levels for each time period.
    (e) sleep disturbance affected distance for night works.
    (f) mitigation measures.
    (g) team member responsible for implementing mitigation measures and managing noise and vibration.

Transport for NSW

Noise Estimator (Individual Plant)

Please input information into yellow cells

Please pick from drop-down list in orange cells

Project name	M12W Rock Crushing - Main alignment
Scenario name	Rock crushing activity- CAF 005
Receiver address	Farmingdale Court Luddenham
Select area ground type	Undeveloped green fields (rural areas with isolated dwellings)
Select type of background noise level input	User Input

		Representative Noise Environment	User Input
Noise area category			
RBL or L_{A90} Background level (dB(A))	Day		40
	Evening		36
	Night		31
$L_{Aeq(15minute)}$ Noise mangement level (dB(A))	Day		50
	Day (OOHW)		45
	Evening		41
	Night		36

Is all plant at the same representative distance to the receiver? Y/N	Y
Representative distance (m)	600

All at Representative Distance

Steps:

1. Enter project name (cell C9).
2. Enter scenario name (cell C10).
3. Enter receiver address (cell C11).
4. Select area ground type (cell C12) - water, undeveloped green fields (e.g. rural areas with isolated dwellings) or developed settlements (e .g. urban and suburban areas)
5. Select the type of background noise level input - Representative noise environment (to make assumptions) or user input (wher e noise monitoring data is available)
   (a) where representative noise environment is selected - select the appropriate noise area category (cell C16). The worksheet titled 'Representative Noise Environ.' provides a number of examples to help select the noise area category.
   (b) where user input is selected - enter the measured background noise level for each time period (cells D17 to D19).
6. Is all plant at the same representative distance to the receiver? Select Y or N (cell C24)
   (a) where Y is selected - enter the representative distance in cell C25.
   (b) where N is selected - go to step #7
7. For the scenario (e.g. shallow excavation), select plant from the drop-down list in cells A28 to A47 (e.g. dump trucks + excavator).
   (a) enter quantity for each selected plant in cells D28 to D47.
   (b) where N is selected from step #6 - enter the distance to receiver for each individual plant in cells E28 to E47.
   (c) is there line of sight to receiver? select from drop down list in cells F28 to F47. Solid barrier can be in the form of road cutting, solid construction hoarding, acoustic curtain, timber lapped and capped fence, shipping container, site office, etc. Please note that vegetation and trees are not considered to be a form of solid barrier.
8. Identify the level above background and/or noise mangement level (see rows 57 to 62).
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11. Document a summary report detailing
    (a) project description (including location, duration, hours of work, construction methodology, plant , potentially impacted receivers, etc.).
    (b) background noise levels.
    (c) noise management levels .
    (d) predicted noise levels for each time period.
    (e) sleep disturbance affected distance for night works.
    (f) mitigation measures.
    (g) team member responsible for implementing mitigation measures and managing noise and vibration.

Type/ model plant (See Sources Sheet)	SWL L_{Aeq} (dB(A))	SPL @7m (dB(A))	Quantity	Individual distance to receiver (m)	Is there line of sight to receiver? Y/N	Quantity correction (dBA)	Shielding correction (dBA)	Distance used in calculation (m)	Contribution SPL (dB(A))
Rock crusher	118	93	1	600	No (behind substantial solid barrier)	0	-10	600	33
Tracked Excavator	110	85	1	600	No (behind substantial solid barrier)	0	-10	600	25
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888

Total SPL $L_{Aeq(15minute)}$ (dB(A))	*33*

			Non-residential receivers						
		Residential receiver	*Classroom at schools and other educational institutions*	*Hospital wards and operating theatres*	*Place of worship*	*Active recreation*	*Passive recreation*	*Industrial premise*	*Offices, retail outlets*
Noise Management Level (dB(A))	Standard hours	*50*	55	65	55	65	60	75	70
	Day (OOHW)	*45*	55	65	55	65	60	75	70
	OOHW Period 1	*41*		65	55	65	60	75	70
	OOHW Period 2	*36*		65	55			75	70
Level above background (dB(A))	Standard hours								
	Day (OOHW)								
	OOHW Period 1								
	OOHW Period 2	*2*							
Level above NML (dB(A))	Standard hours								
	Day (OOHW)								
	OOHW Period 1								
	OOHW Period 2								
Additional mitigation measures	Standard Hours	-	-	-	-	-	-	-	-
	Day (OOHW)	-	-	-	-	-	-	-	-
	OOHW Period 1	-		-	-	-	-	-	-
	OOHW Period 2	-		-	-			-	-

Abbreviation	Measure
N	Notification
SN	Specific notifications
PC	Phone calls
IB	Individual briefings
RO	Respite offer
R1	Respite period 1
R2	Respite period 2
DR	Duration respite
AA	Alternative accommodation
V	Verification

Transport for NSW

Noise Estimator (Individual Plant)

Please input information into yellow cells
Please pick from drop-down list in orange cells

Project name	M12W Rock Crushing - Main alignment
Scenario name	Rock crushing activity- CAF 006
Receiver address	Farmingdale Court Luddenham
Select area ground type	Undeveloped green fields (rural areas with isolated dwellings)
Select type of background noise level input	User Input

		Representative Noise Environment	User Input
Noise area category			
RBL or L_{A90} Background level (dB(A))	Day		40
	Evening		36
	Night		31
$L_{Aeq(15minute)}$ Noise mangement level (dB(A))	Day		50
	Day (OOHW)		45
	Evening		41
	Night		36

Is all plant at the same representative distance to the receiver? Y/N	Y	
Representative distance (m)	550	*All at Representative Distance*

Steps:

1. Enter project name (cell C9).
2. Enter scenario name (cell C10).
3. Enter receiver address (cell C11).
4. Select area ground type (cell C12) - water, undeveloped green fields (e.g. rural areas with isolated dwellings) or developed settlements (e .g. urban and suburban areas)
5. Select the type of background noise level input - Representative noise environment (to make assumptions) or user input (wher e noise monitoring data is available)
   (a) where representative noise environment is selected - select the appropriate noise area category (cell C16). The worksheet titled 'Representative Noise Environ.' provides a number of examples to help select the noise area category.
   (b) where user input is selected - enter the measured background noise level for each time period (cells D17 to D19).
6. Is all plant at the same representative distance to the receiver? Select Y or N (cell C24)
   (a) where Y is selected - enter the representative distance in cell C25.
   (b) where N is selected - go to step #7
7. For the scenario (e.g. shallow excavation), select plant from the drop-down list in cells A28 to A47 (e.g. dump trucks + excavator).
   (a) enter quantity for each selected plant in cells D28 to D47.
   (b) where N is selected from step #6 - enter the distance to receiver for each individual plant in cells E28 to E47.
   (c) is there line of sight to receiver? select from drop down list in cells F28 to F47. Solid barrier can be in the form of road cutting, solid construction hoarding, acoustic curtain, timber lapped and capped fence, shipping container, site office, etc. Please note that vegetation and trees are not considered to be a form of solid barrier.
8. Identify the level above background and/or noise mangement level (see rows 57 to 62).
9. Identify and implement standard mitigation measures where feasible and reasonable. Include any shielding implemented as part of the standard mitigation measures by changing the selection in the 'Is there line of sight to receiver' drop-down list.
10. Identify and implement feasible and reasonable additional mitigation measures (see rows 63 to 65).
11. Document a summary report detailing
   (a) project description (including location, duration, hours of work, construction methodology, plant , potentially impacted receivers, etc.).
   (b) background noise levels.
   (c) noise management levels .
   (d) predicted noise levels for each time period.
   (e) sleep disturbance affected distance for night works.
   (f) mitigation measures.
   (g) team member responsible for implementing mitigation measures and managing noise and vibration.

Type/ model plant (See Sources Sheet)	SWL L_{Aeq} (dB(A))	SPL @7m (dB(A))	Quantity	Individual distance to receiver (m)	Is there line of sight to receiver? Y/N	Quantity correction (dBA)	Shielding correction (dBA)	Distance used in calculation (m)	Contribution SPL (dB(A))
Rock crusher	118	93	1	550	No (behind substantial solid barrier)	0	-10	550	34
Tracked Excavator	110	85	1	550	No (behind substantial solid barrier)	0	-10	550	26
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888

Total SPL $L_{Aeq(15minute)}$ (dB(A))	*34*

			Non-residential receivers						
		Residential receiver	*Classroom at schools and other educational institutions*	*Hospital wards and operating theatres*	*Place of worship*	*Active recreation*	*Passive recreation*	*Industrial premise*	*Offices, retail outlets*
Noise Management Level (dB(A))	Standard hours	*50*	55	65	55	65	60	75	70
	Day (OOHW)	*45*	55	65	55	65	60	75	70
	OOHW Period 1	*41*		65	55	65	60	75	70
	OOHW Period 2	*36*		65	55			75	70
Level above background (dB(A))	Standard hours								
	Day (OOHW)								
	OOHW Period 1								
	OOHW Period 2	*3*							
Level above NML (dB(A))	Standard hours								
	Day (OOHW)								
	OOHW Period 1								
	OOHW Period 2								
Additional mitigation measures	Standard Hours	-	-	-	-	-	-	-	-
	Day (OOHW)	-	-	-	-	-	-	-	-
	OOHW Period 1	-		-	-	-	-	-	-
	OOHW Period 2	-		-	-			-	-

Abbreviation	Measure
N	Notification
SN	Specific notifications
PC	Phone calls
IB	Individual briefings
RO	Respite offer
R1	Respite period 1
R2	Respite period 2
DR	Duration respite
AA	Alternative accommodation
V	Verification

Transport for NSW

Noise Estimator (Individual Plant)

Please input information into yellow cells
Please pick from drop-down list in orange cells

Project name	M12W Rock Crushing - Main alignment
Scenario name	Rock crushing activity- CAF 007
Receiver address	Farmingdale Court Caddenham
Select area ground type	Undeveloped green field (rural areas with isolated dwellings)
Select type of background noise level input	User input

Noise area category		Representative Noise Environment	User Input
RBL or L_{A90} Background level (dB(A))	Day		
	Evening		40
	Night		36
$L_{Aeq(15minute)}$ Noise mangement level (dB(A))	Day		50
	Day (OOHW)		45
	Evening		41
	Night		36

Is all plant at the same representative distance to the receiver? Y/N	Y
Representative distance (m)	520

All at Representative Distance

Steps:
1. Enter project name (cell C5).
2. Enter scenario name (cell C10).
3. Enter receiver address (cell C11).
4. Select area ground type (cell C12) - water, undeveloped green fields (e.g. rural areas with isolated dwellings) or developed settlements (e. g. urban and suburban areas)
5. Select the type of background noise level input - Representative noise environment (to make assumptions) or user input (when a noise monitoring data is available)
   (a) where representative noise environment is selected - select the appropriate noise area category (cell C16). The worksheet titled 'Representative Noise Environ.' provides a number of examples to help select the noise area category.
   (b) where user input is selected - enter the measured background noise level for each time period (cells D17 to D19).
6. Is all plant at the same representative distance to the receiver? Select Y or N (cell C24)
   (a) where Y is selected - enter the representative distance in cell C25.
   (b) where N is selected - go to step #7
7. For the scenario (e.g. shallow excavation), select plant from the drop-down list in cells A28 to A47 (e.g. dump trucks + excavator).
   (a) enter quantity for each selected plant in cells D28 to D47.
   (b) where N is selected from step #6 - enter the distance to receiver for each individual plant in cells E28 to E47.
   (c) is there line of sight to receiver? select from drop down list in cells F28 to F47. Solid barrier can be in the form of road cutting, solid construction hoarding, acoustic curtain, timber lapped and capped fence, shipping container, site office, etc. Please note that vegetation and trees are not considered to be a form of solid barrier.
8. Identify the level above background and/or noise management level (see rows 57 to 62).
9. Identify and implement standard mitigation measures where feasible and reasonable. Include any shielding implemented as part of the standard mitigation measures by changing the selection in the 'Is there line of sight to receiver' drop-down list.
10. Identify and implement feasible and reasonable additional mitigation measures (see rows 63 to 65).
11. Document a summary report detailing
   (a) project description (including location, duration, hours of work, construction methodology, plant, potentially impacted receivers, etc.).
   (b) background noise levels
   (c) noise management levels
   (d) predicted noise levels for each time period.
   (e) sleep disturbance affected distance for night works.
   (f) mitigation measures.
   (g) team member responsible for implementing mitigation measures and managing noise and vibration.

Type/ model plant (See Sources Sheet)	SWL L_{Aeq} (dB(A))	SPL @7m (dB(A))	Quantity	Individual distance to receiver (m)	Is there line of sight to receiver? Y/N	Quantity correction (-dB(A))	Shielding correction (dB(A))	Distance used in calculation (m)	Contribution SPL (dB(A))
Rock crusher	118	93	1	520	No (behind schedule solid barrier)	0	-10	520	35
Tracked Excavator	110	85	1	520	No (behind schedule solid barrier)	0	-10	520	27
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888

Total SPL $L_{Aeq(15minute)}$ (dB(A))	35

		Residential receiver	*Non-residential receivers*						
			Classroom at schools and other educational institutions	*Hospital wards and operating theatres*	*Place of worship*	*Active recreation*	*Passive recreation*	*Industrial premise*	*Offices, retail outlets*
Noise Management Level (dB(A))	Standard hours	50	55	65	55	65	60	75	70
	Day (OOHW)	45	55	65	55	65	60	75	70
	OOHW Period 1	41		65	55	65	60	75	70
	OOHW Period 2	36		65	55			75	70
Level above background (dB(A))	Standard hours								
	Day (OOHW)								
	OOHW Period 1								
	OOHW Period 2	4							
Level above NML (dB(A))	Standard hours								
	Day (OOHW)								
	OOHW Period 1								
	OOHW Period 2								
Additional mitigation measures	Standard Hours	-	-	-	-	-	-	-	-
	Day (OOHW)	-	-	-	-	-	-	-	-
	OOHW Period 1	-		-	-	-	-	-	-
	OOHW Period 2	-		-	-			-	-

Abbreviation	Measure
N	Notification
SN	Specific notifications
PC	Phone calls
IB	Individual briefings
RO	Respite offer
R1	Respite period 1
R2	Respite period 2
DR	Duration respite
AA	Alternative accommodation
V	Verification

Transport for NSW

Noise Estimator (Individual Plant)

Please input information into yellow cells

Please pick from drop-down list in orange cells

Project name	M12W Rock Crushing - Main alignment
Scenario name	Rock crushing activity- CAF 008
Receiver address	Farmingdale Court Luddenham
Select area ground type	Undeveloped green fields (rural areas with isolated dwellings)
Select type of background noise level input	User Input

		Representative Noise Environment	User Input
Noise area category			
RBL or L_{A90} Background level (dB(A))	Day		40
	Evening		36
	Night		31
$L_{Aeq(15minute)}$ Noise mangement level (dB(A))	Day		50
	Day (OOHW)		45
	Evening		41
	Night		36

Is all plant at the same representative distance to the receiver? Y/N	Y	
Representative distance (m)	547	*All at Representative Distance*

Steps:

1. Enter project name (cell C9).
2. Enter scenario name (cell C10).
3. Enter receiver address (cell C11).
4. Select area ground type (cell C12) - water, undeveloped green fields (e.g. rural areas with isolated dwellings) or developed settlements (e .g. urban and suburban areas)
5. Select the type of background noise level input - Representative noise environment (to make assumptions) or user input (wher e noise monitoring data is available)
   (a) where representative noise environment is selected - select the appropriate noise area category (cell C16). The worksheet titled 'Representative Noise Environ.' provides a number of examples to help select the noise area category.
   (b) where user input is selected - enter the measured background noise level for each time period (cells D17 to D19).
6. Is all plant at the same representative distance to the receiver? Select Y or N (cell C24)
   (a) where Y is selected - enter the representative distance in cell C25.
   (b) where N is selected - go to step #7
7. For the scenario (e.g. shallow excavation), select plant from the drop-down list in cells A28 to A47 (e.g. dump trucks + excavator).
   (a) enter quantity for each selected plant in cells D28 to D47.
   (b) where N is selected from step #6 - enter the distance to receiver for each individual plant in cells E28 to E47.
   (c) is there line of sight to receiver? select from drop down list in cells F28 to F47. Solid barrier can be in the form of road cutting, solid construction hoarding, acoustic curtain, timber lapped and capped fence, shipping container, site office, etc. Please note that vegetation and trees are not considered to be a form of solid barrier.
8. Identify the level above background and/or noise mangement level (see rows 57 to 62).
9. Identify and implement standard mitigation measures where feasible and reasonable. Include any shielding implemented as part of the standard mitigation measures by changing the selection in the 'Is there line of sight to receiver' drop-down list.
10. Identify and implement feasible and reasonable additional mitigation measures (see rows 63 to 65).
11. Document a summary report detailing
   (a) project description (including location, duration, hours of work, construction methodology, plant , potentially impacted receivers, etc.).
   (b) background noise levels.
   (c) noise management levels .
   (d) predicted noise levels for each time period.
   (e) sleep disturbance affected distance for night works.
   (f) mitigation measures.
   (g) team member responsible for implementing mitigation measures and managing noise and vibration.

Type/ model plant (See Sources Sheet)	SWL L_{Aeq} (dB(A))	SPL @7m (dB(A))	Quantity	Individual distance to receiver (m)	Is there line of sight to receiver? Y/N	Quantity correction (dBA)	Shielding correction (dBA)	Distance used in calculation (m)	Contribution SPL (dB(A))
Rock crusher	118	93	1	547	No (behind substantial solid barrier)	0	-10	547	34
Tracked Excavator	110	85	1	547	No (behind substantial solid barrier)	0	-10	547	26
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888

Total SPL $L_{Aeq(15minute)}$ (dB(A))	*34*

		Residential receiver	Non-residential receivers						
			Classroom at schools and other educational institutions	*Hospital wards and operating theatres*	*Place of worship*	*Active recreation*	*Passive recreation*	*Industrial premise*	*Offices, retail outlets*
Noise Management Level (dB(A))	Standard hours	*50*	55	65	55	65	60	75	70
	Day (OOHW)	*45*	55	65	55	65	60	75	70
	OOHW Period 1	*41*		65	55	65	60	75	70
	OOHW Period 2	*36*		65	55			75	70
Level above background (dB(A))	Standard hours								
	Day (OOHW)								
	OOHW Period 1								
	OOHW Period 2	*3*							
Level above NML (dB(A))	Standard hours								
	Day (OOHW)								
	OOHW Period 1								
	OOHW Period 2								
Additional mitigation measures	Standard Hours	-	-	-	-	-	-	-	-
	Day (OOHW)	-	-	-	-	-	-	-	-
	OOHW Period 1	-		-	-	-	-	-	-
	OOHW Period 2	-		-	-			-	-

Abbreviation	Measure
N	Notification
SN	Specific notifications
PC	Phone calls
IB	Individual briefings
RO	Respite offer
R1	Respite period 1
R2	Respite period 2
DR	Duration respite
AA	Alternative accommodation
V	Verification

Transport for NSW

Noise Estimator (Individual Plant)

Steps:
1. Enter project name (cell C5).
2. Enter scenario name (cell C10).
3. Enter receiver address (cell C11).
4. Select area ground type (cell C12) - water, undeveloped green fields (e.g. rural areas with isolated dwellings) or developed settlements (e. g. urban and suburban areas)
5. Select the type of background noise level input - Representative noise environment (to make assumptions) or user input (when a noise monitoring data is available)
   (a) where representative noise environment is selected - select the appropriate noise area category (cell C16). The worksheet titled 'Representative Noise Environ.' provides a number of examples to help select the noise area category.
   (b) where user input is selected - enter the measured background noise level for each time period (cells D17 to D19).
6. Is all plant at the same representative distance to the receiver? Select Y or N (cell C24)
   (a) where Y is selected - enter the representative distance in cell C25.
   (b) where N is selected - go to step #7
7. For the scenario (e.g. shallow excavation), select plant from the drop-down list in cells A28 to A47 (e.g. dump trucks + excavator).
   (a) enter quantity for each selected plant in cells D28 to D47.
   (b) where N is selected from step #6 - enter the distance to receiver for each individual plant in cells E28 to E47.
   (c) is there line of sight to receiver? select from drop down list in cells F28 to F47. Solid barrier can be in the form of road cutting, solid construction hoarding, acoustic curtain, timber lapped and capped fence, shipping container, site office, etc. Please note that vegetation and trees are not considered to be a form of solid barrier.
8. Identify the level above background and/or noise management level (see rows 57 to 62).
9. Identify and implement standard mitigation measures where feasible and reasonable. Include any shielding implemented as part of the standard mitigation measures by changing the selection in the 'Is there line of sight to receiver' drop-down list.
10. Identify and implement feasible and reasonable additional mitigation measures (see rows 63 to 65).
11. Document a summary report detailing
   (a) project description (including location, duration, hours of work, construction methodology, plant, potentially impacted receivers, etc.).
   (b) background noise levels
   (c) noise management levels
   (d) predicted noise levels for each time period.
   (e) sleep disturbance affected distance for night works.
   (f) mitigation measures.
   (g) team member responsible for implementing mitigation measures and managing noise and vibration.

Please input information into yellow cells
Please pick from drop-down list in orange cells

Project name	M12W Rock Crushing - Main alignment
Scenario name	Crushing activity CAP 009
Receiver address	Farmingdale Court Caddenham
Select area ground type	Undeveloped green fields (rural areas with isolated dwellings)
Select type of background noise level input	User input

Noise area category		Representative Noise Environment	User Input
RBL or L_{A90} Background level (dB(A))	Day		
	Evening		34
	Night		35
$L_{Aeq(15minute)}$ Noise mangement level (dB(A))	Day		31
	Day (OOHW)		44
	Evening		39
	Night		40
			36

Is all plant at the same representative distance to the receiver? Y/N	Y
Representative distance (m)	560

All at Representative Distance

Type/ model plant (See Sources Sheet)	SWL L_{Aeq} (dB(A))	SPL @7m (dB(A))	Quantity	Individual distance to receiver (m)	Is there line of sight to receiver? Y/N	Quantity correction (dB(A))	Shielding correction (dB(A))	Distance used in calculation (m)	Contribution SPL (dB(A))
Rock crusher	118	93	1	560	No (behind solid barrier)	0	-5	560	39
Tracked Excavator	110	85	1	560	No (behind solid barrier)	0	-5	560	31
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888

Total SPL $L_{Aeq(15minute)}$ (dB(A))	39

		Residential receiver	*Non-residential receivers*						
			Classroom at schools and other educational institutions	*Hospital wards and operating theatres*	*Place of worship*	*Active recreation*	*Passive recreation*	*Industrial premise*	*Offices, retail outlets*
Noise Management Level (dB(A))	Standard hours	44	55	65	55	65	60	75	70
	Day (OOHW)	39	55	65	55	65	60	75	70
	OOHW Period 1	40		65	55	65	60	75	70
	OOHW Period 2	36		65	55			75	70
Level above background (dB(A))	Standard hours	5							
	Day (OOHW)	5							
	OOHW Period 1	4							
	OOHW Period 2	8							
Level above NML (dB(A))	Standard hours								
	Day (OOHW)	0							
	OOHW Period 1								
	OOHW Period 2	3							
Additional mitigation measures	Standard Hours	-	-	-	-	-	-	-	-
	Day (OOHW)	-	-	-	-	-	-	-	-
	OOHW Period 1	-		-	-	-	-	-	-
	OOHW Period 2	N		-	-			-	-

Abbreviation	Measure
N	Notification
SN	Specific notifications
PC	Phone calls
IB	Individual briefings
RO	Respite offer
R1	Respite period 1
R2	Respite period 2
DR	Duration respite
AA	Alternative accommodation
V	Verification

Appendix K – SEMP DPE Approval

Department of Planning and Environment

Our ref: SSI-9364-PAs 86 and 90

Ms Deanne Forrest
M12 Motorway Project Director
Transport for NSW
PO Box K569
Haymarket NSW 1240

22 July 2022

Subject: Site Establishment Management Plan for M12 Motorway (Condition A16 of SSI 9364)

Dear Ms Forrest

I refer to your submission dated 21 June 2022 of the Site Establishment Management Plan – M12 Motorway Central (rev E, 5 July 2022) (the Central SEMP), and 23 June 2022 of Appendix B10 Site Establishment Management Plan – M12 Motorway West (rev D1, 21 June 2022) (the West SEMP), to the Planning Secretary for approval under Condition A16. I also acknowledge your response to the Department's review comments and request for additional information for the Central SEMP.

I note the Central and West SEMPs:

- were prepared in consultation with Liverpool Council, Penrith Council, Fairfield Council, Transport for NSW (Customer Journey Planning), and the Environment and Heritage Group.
- have been reviewed by Transport for NSW and no issues have been raised with the Department;
- have been reviewed and endorsed by the Environmental Representative; and
- contain the information required by the conditions of approval.

As nominee of the Planning Secretary, I approve under Condition A16, the:

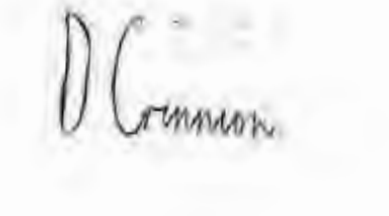
- Site Establishment Management Plan – M12 Motorway Central (rev E, 5 July 2022) (the Central SEMP); and
- Appendix B10 Site Establishment Management Plan – M12 Motorway West (rev D.01, 21 June 2022).

You are reminded that if there is any inconsistency between the approved SEMPs and the conditions of approval, then the requirements of the conditions of approval prevail.

Please ensure you make the SEMPs and this approval letter publicly available on the project website.

If you wish to discuss the matter further, please contact Amy Porter on 9373 2853.

Yours sincerely



Dominic Crinnion
Acting Director
Infrastructure Management

As nominee of the Planning Secretary