CPB CONTRACTORS | DRAGADOS | SAMSUNG C&T

Construction Environmental Management Plan

Project Name: WestConnex New M5

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Document Approval

Rev.	Date	Prepared by	Reviewed by	Recommended by	Approved by	Remarks
00	11/01/16	CDS-JV				
01	21/03/16	CDS-JV				
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05	23/08/16	CDS-JV				
06	12/10/17	CDS-JV				
Signature:						

Details of Revision Amendments

Document Control

The Project Director is responsible for ensuring that this Plan is reviewed and approved. The Support Services Director is responsible for updating this Plan to reflect changes to the environmental legal and other requirements, as required.

Amendments

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

Revision Details

Revision	Details
00	First draft prepared for consultation and review by WCX M5 AT, RMS and DP&E prior to Infrastructure Approval
01	Second draft prepared for consultation and review by DP&E prior to Infrastructure Approval
02	Third draft prepared for consultation and review by key stakeholders
03	Issued for DP&E approval
04	Updated to address DP&E comments
05	Updated to address additional DP&E comments. Issued for information
06	Update to include additional approved ancillary facilities. Update Appendix B8. General update via annual CEMP review.

Contents

Part A: Overview

1. Structure of this Plan

This Construction Environmental Management Plan (CEMP) forms part of the Project Management System (PMS). It is part of a suite of Plans that together outline how the WestConnex New M5 (the Project) will be managed to ensure an integrated approach to meeting Project requirements.

In addition to the Project Management Plan other Project Plans that interface with the Construction Environmental Management Plan include:

- Construction Plan
- Design Plan
- Quality Plan
- Project WHS Management Plan

The Plan has the following structure:

Part A: Overview	This section clearly defines: • Project Overview • Purpose and Scope of the CEMP • Project Description • Environmental Requirements • Objectives and Targets • Structure the Environmental Management System • Summary of the Significant Environmental Hazards, specific client requirements, compliance requirements and Project environmental performance targets
Part B: Implementation	This section outlines in detail the key aspects for environmental management on the Project including: • Expectations • How they will be met • Responsibilities • Associated deliverables
Part C: Environmental Sub-Plans	• This section contains the Environmental Sub-Plans developed by the Project to manage Significant Environmental Hazards and other potential major impacts upon the environment and community
Part D: Appendices	This section provides information supporting the CEMP including: • Appendix B1: Project Environmental Policy • Appendix B2: Environmental Roles and Responsibilities • Appendix B3: Environmental Obligations Register • Appendix B4: Environmental Risk Register • Appendix B5: Auditing and Reporting • Appendix B6: RMS Environmental Incident Classification and Reporting Procedure • Appendix B7: Property Condition Claim Process • Appendix B9: Glossary of Terms

Part C of this CEMP includes the Sub-Plans required to manage significant environmental hazards and other potential major impacts on the environment and community. These sub-plans and associated documentation are outlined in Table **1**.

Table 1: CEMP framework

	Sub-plans to CEMP	Sub-plan attachments	Standalone Documentation (linked to CEMP)
Construction Environmental Management Plan	Construction Air Quality Sub Plan	• NA	• Sustainability Plan • Ancillary Facilities Management Plan
	Construction Noise and Vibration Sub Plan	• Out of Hours Works Protocol • Blast Management Strategy	• Land Use Survey • Sustainability Plan • Ancillary Facilities Management Plan • Temporary Noise Barrier Strategy
	Construction Traffic & Access Management Plan	• NA	• Traffic Management Plans • Ancillary Facilities Management Plan • Local Road Dilapidation Report • Road Safety Audit • Construction Parking and Access Strategy
	Construction Soil & Water Quality Sub Plan	• Acid Sulfate Soil Management Plan	• Flood Management Strategy • Groundwater and Soil Salinity Report • Sustainability Plan • Geotechnical Model • Ancillary Facilities Management Plan • Water Quality Plan and Monitoring Program • Acid Sulfate Soil Management Procedure • Asbestos Guideline
	Construction Heritage Sub Plan	• Historical Archaeological Research Design • Unexpected Heritage Finds	• Sustainability Plan • Geotechnical Model • Ancillary Facilities Management Plan
	Construction Flora & Fauna Sub Plan	• Pathogen and Weed Management Strategy • Nest Box Plan	• Sustainability Plan • Ancillary Facilities Management Plan • Urban Design and Landscape Management Plan • Revegetation Strategy • Green and Gold Bell Frog Management Plan • Biodiversity Offsets Package • Tree Reports
	Waste and Resource Sub-Plan	• NA	• Water Reuse Strategy • Spoil Management Plan • Sustainability Plan
	Energy and Greenhouse Gas Emissions Sub Plan	• NA	• Sustainability Plan

2. Project Overview

2.1 Background

WestConnex is one of the NSW Government's key infrastructure projects which aims to ease congestion, create jobs and connect communities. The 33 km motorway linking Sydney's west and south-west with the Sydney Central Business District, Sydney Airport and Port Botany is being delivered by Sydney Motorway Corporation (SMC, formerly WestConnex Delivery Authority) as a series of separate projects.

The WestConnex New M5 project (the Project) is the Stage 2 component of the WestConnex scheme. The Project will run from the existing M5 East corridor at Beverly Hills via tunnel to St Peters, providing improved access to the airport, south Sydney and Port Botany precincts. The CPB Contractors Dragados Samsung Joint Venture (CDS-JV) will deliver the design and construction of the Project for the Project Company (WCX M5 AT).

The Project will deliver approximately nine kilometres of two-lane twin tunnels with capacity to operate three lanes in the future, motorway to motorway connections to the King Georges Road Interchange Upgrade at Beverly Hills, and a new interchange at St Peters.

On 20 November 2015, the project was declared by the Minister for Planning to be State Significant Infrastructure (SSI) and critical State Significant Infrastructure (critical SSI), under sections 115U(4) and 115V of the Environmental Planning and Assessment Act 1979 (EP&A Act) and clause 16 of the State Environmental Planning Policy (State and Regional Development) 2011.

An Environmental Impact Statement (EIS) (AECOM 2015) was prepared and placed on public exhibition from 27 November 2015 to 29 January 2016. Submissions were received from government, agencies, organisations and the public in repose to the project. A Submissions and Preferred Infrastructure Report was prepared by SMC in response to submissions received during the exhibition period. The Project was approved by the Minister for Planning on 20 April 2016.

2.2 Purpose and Scope

The purpose of this CEMP is to provide a structured approach to the management of environmental issues during construction of the Project.

This Construction Environmental Management Plan (CEMP) outlines how CDS-JV will achieve environmental outcomes on the New M5 project (SSI-6788). This is achieved through the application of the CDS-JV Environmental Management System (EMS), based on the CPB Contractors EMS and 'The Way We Operate' framework. The CEMP is the key document that integrates Environmental requirements with WCX M5 AT and CDS-JV Project requirements.

The CEMP has been prepared in accordance with Roads and Maritime Services Specification D&C G36 – Environmental Protection (Roads and Maritime, 2014) and the Guideline for the Preparation of Environmental Management Plans (DIPNR, 2004).

Implementation of the CEMP will:

- Identify the environmental obligations attached to the Project and the hazards and risks associated with the Works
- Assist in the prevention of unauthorised environmental harm
- Fulfill environmental requirements, including complying with relevant permits and approvals
- Comply with all relevant environmental legislation
- Minimise negative impacts on the community that relate to the Project's environmental impacts
- Identify and implement feasible opportunities to reduce the environmental impact of the Project that are beyond compliance requirements
- Fulfill CPB Contractors' EMS requirements enabling continued certification to ISO14001 and contribution to CDS-JVs' overall Project Plans.

Implementing this CEMP and sub plans effectively will ensure that the Project meets regulatory and policy requirements in a systematic manner and continually improves its performance. The purpose of the CEMP and sub plans is also to ensure appropriate environmental management measures and controls are implemented during the construction phase to ensure environmental impacts are minimised or avoided.

2.3 Project Description

2.3.1 General features

An overview of the project at completion is shown in Figure 1. The project comprises the following key features:

- Twin motorway tunnels between the existing M5 East Motorway (between King Georges Road and Bexley Road) and St Peters. Each tunnel would be around nine kilometres in length and would be configured as follows:
  - Between the western portals and Arncliffe, the tunnels would be built to be three lanes wide but marked for two lanes as part of the project. Any change from two lanes to three lanes would be subject to future environmental assessment and approval
  - Between Arncliffe and St Peters, the tunnels would be built to be five lanes wide but marked for two lanes as part of the project. Any change from two lanes to any of three, four or five lanes would be subject to future environmental assessment and approval
- Tunnel stubs to allow for a future connection to the M4-M5 Link and a future connection to southern Sydney via a future Southern extension
- Surface road widening works along the M5 East Motorway between east of King Georges Road and the new tunnel portals
- A new road interchange at St Peters, which would initially provide road connections from the main alignment tunnels to Campbell Road and Euston Road, St Peters
- Two new road bridges across Alexandra Canal which would connect St Peters interchange with Gardeners Road and Bourke Road, Mascot
- Closure and remediation of the Alexandria Landfill site, to enable the construction and operation of the new St Peters interchange
- Works to enhance and upgrade local roads near the St Peters interchange
- Ancillary infrastructure and operational facilities for electronic tolling, signage (including electronic signage), ventilation structures and systems, fire and life safety systems, and emergency evacuation and smoke extraction infrastructure
- A motorway control centre that would include operation and maintenance facilities
- New service utilities and modifications to existing service utilities
- Temporary construction facilities and temporary works to facilitate the construction of the project (refer Section 2.3.4 below)
- Infrastructure to introduce tolling on the existing M5 East Motorway
- Surface road upgrade works within the corridor of the M5 East Motorway.

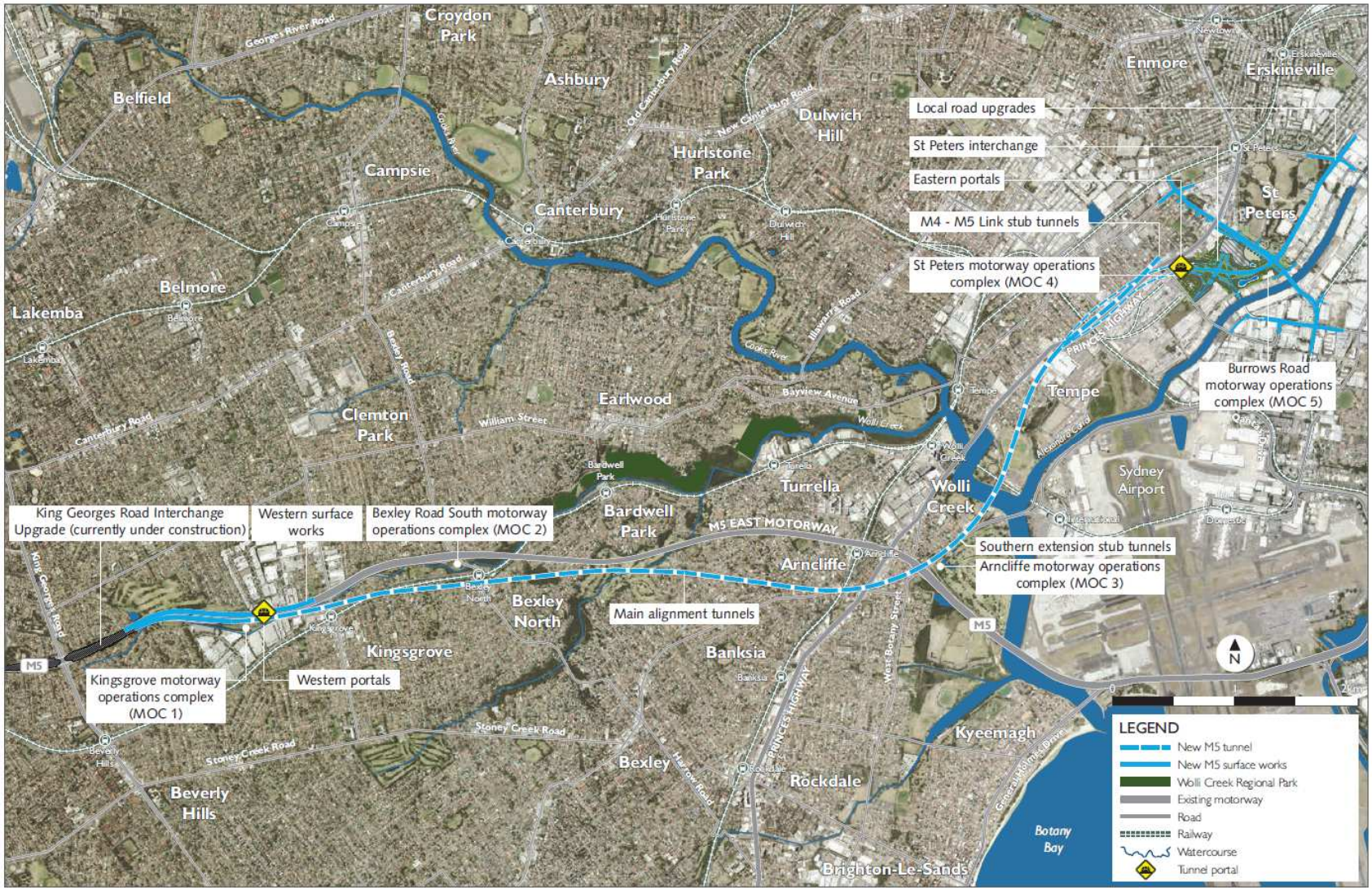
2.3.2 Construction staging

The project is proposed to be staged in accordance with CoA A10. The stages are described in detail in the Staging Report (Revision 3) submitted to DP&E on 22 December 2016 and can be summarised as:

- Stage 1: Establishment of construction compounds C1 to C11 and establishment of HV power supply
- Stage 2: Commencement of surface construction activities at Kingsgrove, Bexley, Arncliffe and SPI construction areas.
- Stage 3: Commencement of tunnelling activities using roadheaders and continuation of remaining surface construction activities.
- Stage 4: Commencement of surface construction activities at the Local Roads Upgrade sites.

Stage 1 includes demolition and site establishment (as defined under the SSI approval) of construction compounds C1 to C11. Stage 2 includes commencement of construction (as defined under the SSI approval) for surface works. Stage 3 includes tunnelling activities including roadheader excavation, tunnel fit-out and commissioning activities. Stage 4 includes commencement of construction at the Local Roads Upgrade sites.

Figure 1: New M5 Project Overview



2.3.3 Construction activities and sequence

Key construction activities of the project are described in Table 2. The list is not exhaustive and some of these activities may be undertaken prior to construction as part of establishment works prior to the CEMP being approved. Establishment works will be those activities which do not constitute 'construction' as defined in the project approval (SSI 6788).

Table 2: Indicative construction activities

Component	Typical activities
Construction set-up and preparatory works	
Site establishment and establishment of construction compounds	Demolition of existing buildings Establishment of construction compound fencing and hoardings Vegetation clearance Installation of sediment and erosion control measures Installation of site offices and crib rooms Construction of hardstands Construction of access roads, site entry and exit points and security Set up of spoil sheds and support equipment as required Set up of construction monitoring equipment Construction traffic works, including Relocation of utilities.
Alexandria Landfill closure	
Alexandria Landfill Closure	Construction of access roads, site entry and exit points and enabling works Foundation preparatory works Bulk earthworks (St Peters interchange cut to fill) Bulk earthworks (imported fill and engineered fill) Cut foundation treatment Capping installation Establishment of leachate collection, treatment pumping station Construction and establishment of groundwater seepage cut-off wall Landscaping.
Tunnel construction and fit out	
Tunnel construction	Construction of shafts and / or declines Installation and operation of roadheaders Spoil stockpiling and removal Controlled blasting of the bench and cross passages Controlled blasting and / or rockbreaking of the main alignment tunnels and cross passages Installation of shotcrete lining Installation of waterproof membrane, where required Installation of final lining and architectural treatments Construction of the concrete floor Installation of drainage and utility infrastructure Final finishes and line marking.

Component	Typical activities
Portal construction	Construction of the cut and cover structures Bulk excavation with the cut and cover and the dive structure Spoil stockpiling and removal Installation of the drainage and utility infrastructure Installation of road base, lighting, new jersey barriers Final asphalting layer installed Sign installation and construction of the toll gantries Linemarking, traffic switches to tie in with existing road network landscaping and noise walls.
Mechanical and electrical systems	Installation of fire and life safety systems, tunnel ventilation facilities, operational tunnel lighting, signage, power reticulation through the tunnel, communication systems, and control and operational management control systems and infrastructure Commissioning of mechanical and electrical systems, including emergency procedures.
Surface works – roads	
Local road upgrades	Removal of existing road pavements, as required Installation of the drainage and utility infrastructure Installation of road base, lighting, kerb and guttering, verges, medians, and new jersey barriers Earthworks and excavation Spoil stockpiling and removal Installation of final asphalting layer Sign installation and street lighting Line-marking, traffic switches to tie in with existing road network landscaping.
St Peters Interchange and portal	Bulk excavation and material disposal Foundation works to pavements including piling Structural and flexible pavement construction to St Peters interchange Construction of the St Peters interchange bridges Construction of the Campbell Road pedestrian and cycle bridge Construction of bridges over Alexandra Canal Construction of retaining walls and landscaping.
Surface works – operational infrastructure	
Tolling facilities construction	Construction of toll gantries Construction of technical shelters Installation of communications and power Commissioning of toll operations.
Operational facilities construction	Construction of ventilation system facilities, including emergency smoke extraction facilities Construction of the motorway control centre and backup facility Construction of permanent access roads to operational facilities Construction of drainage and water treatment facilities, including water treatment plant Construction of motorway operations complexes Establishment of noise barriers Installation of roadside furniture and lighting.
Commissioning and demobilisation	

Component	Typical activities
Testing and commissioning	Testing of plant and equipment Commissioning of the project.
Finishing work and demobilisation	Removal of construction facilities Landscaping Rehabilitation of affected areas Post-construction condition surveys Removal of construction environmental controls Removal of construction ancillary facility related traffic signage.

An indicative program is provided in Table 3 below.

Table 3: Indicative construction program

	2016				2017				2018				2019			
Site establishment			■	■												
Landfill closure works			■	■	■	■	■	■								
Construction of western surface works			■	■	■	■	■	■	■	■	■	■	■			
Tunnel construction					■	■	■	■	■	■	■	■	■	■		
Construction of St Peters Interchange				■	■	■	■	■	■	■	■	■	■	■	■	
Portal construction					■	■	■	■	■	■						
Construction of local road upgrades				■	■	■	■	■	■	■	■	■	■	■		
Construction of permanent operational facilities							■	■	■	■	■	■	■	■	■	
Mechanical and electrical fit-out									■	■	■	■	■	■	■	■
Establishment of tolling facilities													■	■	■	■
Demobilisation and rehabiliation											■	■	■	■	■	■

2.3.4 Ancillary facilities

The WestConnex New M5 EIS (AECOM 2015) identifies 14 temporary ancillary facilities required for the project. The EIS provides an assessment of the characteristics, likely activities and potential impacts at each site.

Detailed design has identified that 13 of the 14 sites identified in the EIS will be required to support construction of the project. An overview of the location of the ancillary facilities proposed for the project is provided in Figure 1. Five of the 13 facilities are to become permanent facilities to assist the motorway and tunnel operation. An additional three ancillary facilities have been approved for construction purposes subsequent to the SSI approval. A summary of the primary uses of the current approved facilities for construction of the project are listed in Table 4.

An additional four ancillary sites were identified in an Addendum to the Submissions Report for the installation of HV power for construction and are described in Appendix J of the Ancillary Facilities Management Plan M5N-ES-PLN-PWD-0026 (AFMP).

The establishment of each ancillary facility has been addressed by the AFMP. During construction of the project, the ancillary facilities are also managed in accordance with this CEMP and sub-plans. Establishment of construction compounds C1 to C11 and installation of HV power commenced with the approval of the AFMP. Establishment of compounds C12 and C13 (Local Roads area) will commence subsequent to the approval of this CEMP. All subsequently approved ancillary facilities will be established in accordance with the AFMP and CEMP.

Figure 2: Location of Ancillary Facilities

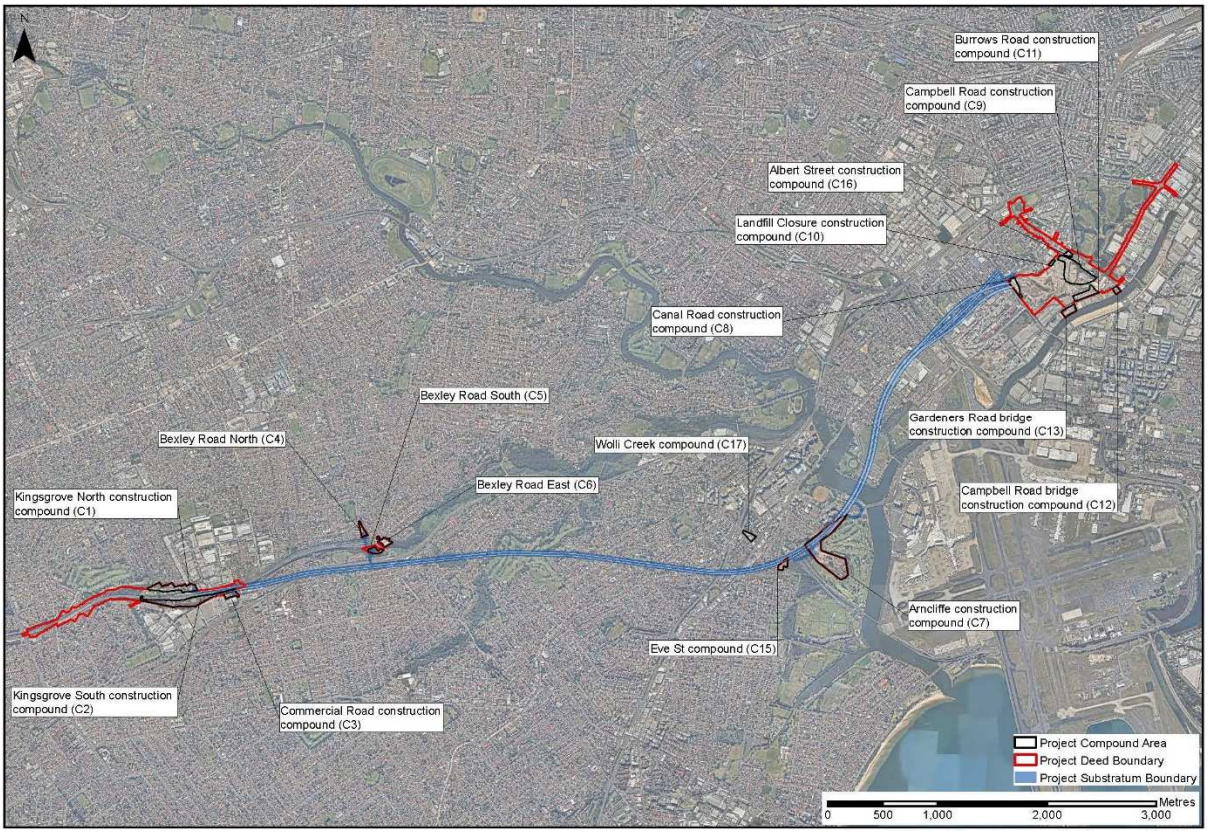


Table 4: Ancillary facilities and key uses proposed during construction and operation

Construction Area	Ancillary Facility	Primary use during Project construction	Primary use during Project operation
Kingsgrove	Kingsgrove North (C1)	Civil sites: cut and cover, spoil management and removal, and surface works support. Tunnel site: shaft excavation and tunnel support site.	None
	Kingsgrove South (C2)	Civil sites: spoil management and removal, and surface works support**.**	Kingsgrove motorway operations complex (MOC1) – ventilation and maintenance facility, emergency response system, storage and offices
	Commercial Road (C3)	Tunnel site: shaft excavation and tunnel support site.	None

Construction Area	Ancillary Facility	Primary use during Project construction	Primary use during Project operation
Bexley	Bexley Road North (C4)	Civil sites: declines, spoil management and removal. Tunnel site: shaft excavation and tunnel support site.	None
	Bexley Road South (C5)	Civil sites: declines, spoil management and removal. Tunnel site: shaft excavation and tunnel support site.	Bexley Road South motorway operations complex (MOC2) - emergency smoke extraction facility
	Bexley Road East (C6)	Support site to Bexley Road North (C4) and Bexley Road South (C5) construction compounds.	None
Arncliffe	Arncliffe (C7)	Civil sites: declines, spoil management and removal, establish Green and Golden Frog habitat and surface works support. Tunnel site: ventilation shaft excavation and tunnel support site.	Arncliffe motorway operations complex (MOC3) – ventilation (air injection facility) and emergency smoke extraction facility, water treatment plant
	Eve Street (C15)	Support site for HV power installation: laydown, storage, parking and crib hut	Green and Golden Bell Frog habitat
	Burrows Street, Wolli Creek (C17)	Incident Response Office	None
St Peters	Canal Road (C8)	Civil sites: decline, dive structures, cut and cover, spoil management and removal, and surface works support Tunnel site: ventilation shaft excavation and tunnel support site	St Peters motorway operations complex (MOC4) – ventilation facility Eastern portals
	Campbell Road (C9)	Civil sites: on and off ramps, bridge structures, tie-ins, carriageways, and surface works support	St Peters Interchange
	Landfill Closure (C10)	Civil sites: enabling and landfill closure works, support site to closure Alexandria Landfill	St Peters Interchange (open space)
	Albert Street (C16)	Surface works support site: minor storage, laydown, carparking and amenities	Campbell Road upgrade and proposed Stage 3 works (cut and cover gateway tunnel entry)
	Burrows Road (C11)	Surface works support site	Burrows Road motorway operations complex (MOC5) – motorway control centre
Civil East (St Peters)	Campbell Road bridge (C12)	Civil sites: bridge structures, tie-ins, and surface works support	Campbell Road Bridge
	Gardeners Road bridge (C13)	Civil sites: bridge structures, tie-ins, and surface works support	Gardeners Road Bridge

Construction Area	Ancillary Facility	Primary use during Project construction	Primary use during Project operation
	Sydney Park (C14)	Not currently proposed. Construction activities associated with this compound have been postponed to proposed Stage 3 WestConnex works	Stage 3 WestConnex construction activities
HV Power	Alignments 1 - 4	Provide HV power supply to construction compounds (C3, C4, C7, C8)	None

2.3.5 Summary of resources, roles, responsibilities and authority

The key environmental management roles and responsibilities for the construction phase of the project are described in Table 5. The structure of these roles is shown in Figure 3. For further detail on roles and responsibilities, refer to Appendix B2: Environmental Roles and Responsibilities.

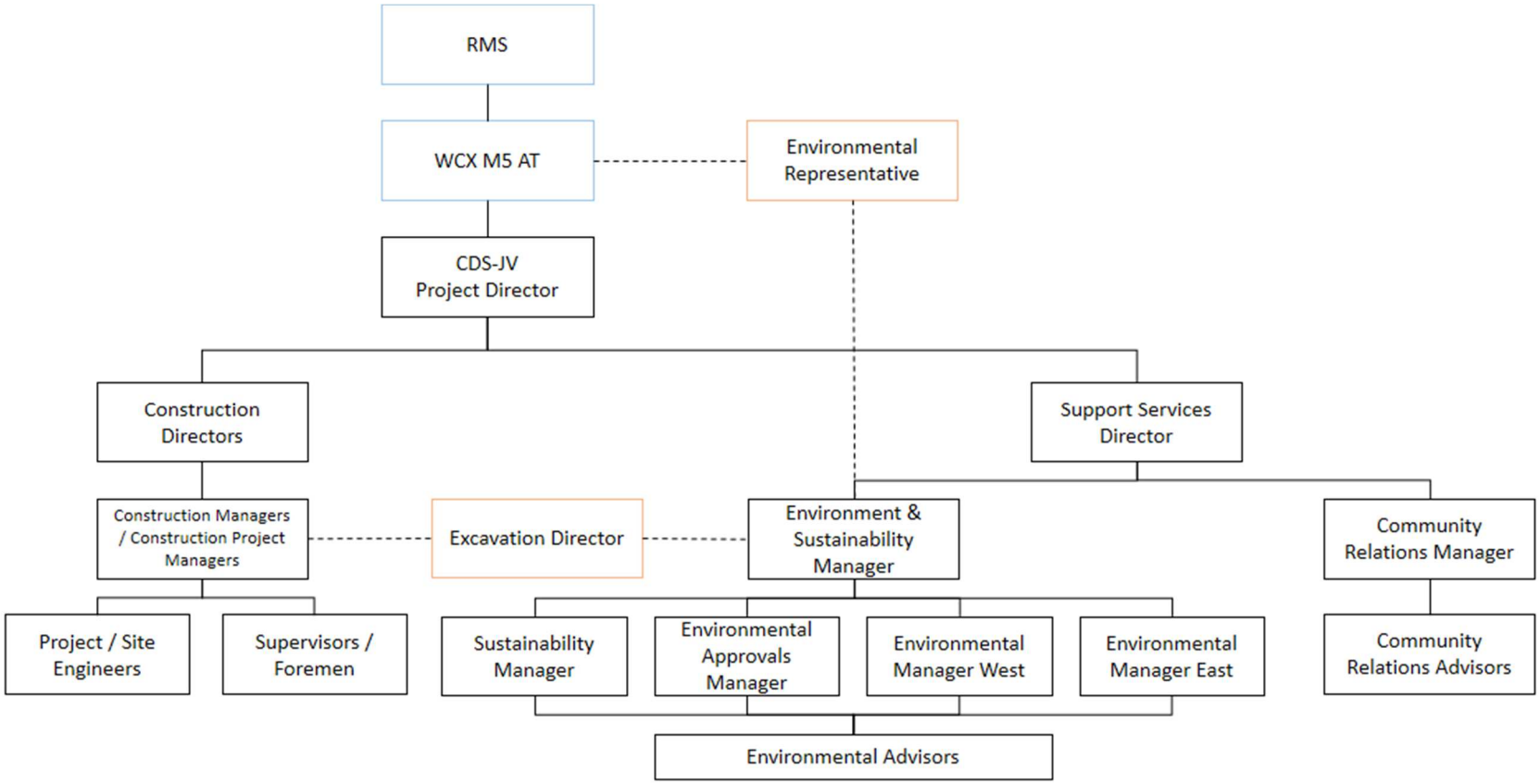


Figure **3**: Summary Organisation Chart

Table 5: Key roles and responsibilities relevant to environmental management

Role	Responsibilities
CDS-JV Project Director	The environmental responsibilities of the CDS-JV Project Director include, but are not limited to: • Be an emergency contact and available to be contacted by EPA and RMS Representative on a 24 hour basis; • Endorse and support the project's Environmental Policy and this CEMP; and • Provide environmental leadership and ensure adequate resources are provided to effectively implement this construction environmental management plan.
CDS-JV Support Services Director	The environmental responsibilities of the CDS-JV Support Services Director include, but are not limited to: • Provide environmental oversight, direction and leadership regarding the environmental management of the project.
CDS-JV Environment and Sustainability Manager	The environmental responsibilities of the CDS-JV Environment and Sustainability Manager include, but are not limited to: • Be an emergency contact and available to be contacted by EPA and RMS Representative on a 24 hour basis; • Notify WCX M5 AT, Environmental Representative and agencies as required in response to environmental incidents and potential incidents; • Act as the main point of contact for the Environmental Representative, RMS Environmental Representative and approval authorities. • Identify and maintain a register of relevant legal, CDS-JV EMS requirements and other requirements; • Obtain all necessary approvals prior to commencing relevant works; • Ensure the project induction includes appropriate training regarding the requirements of this CEMP; • Ensure identified risks are analysed and evaluated according to agreed criteria. • Regularly review identified risks and controls and maintain a risk register; • Ensure regular inspections, observations, monitoring and audits are conducted to check the effectiveness of controls and that compliance is maintained; • Identify, assess and leverage opportunities to achieve sustainability outcomes; • Review subcontractors' performance and compliance with CDS-JV environmental requirements; • Enter and close out all incidents in the HSE Reporting System (Synergy); • Identify and implement corrective and preventative actions after incidents and share lessons learned within the CDS-JV team or other projects, as applicable; and • Provide input to the monthly project progress report.
CDS-JV Environment Advisor	The environmental responsibilities of the CDS-JV Environment Advisor include, but are not limited to: • Assist the CDS-JV Environment and Sustainability Manager to implement, maintain and review this CEMP and associated documents; • Act as the first source of environmental advice and information for the CDS-JV design and construction teams; • Conduct regular inspections and monitoring in accordance with this CEMP and sub-plans; • Respond to incidents and manage investigations as directed by the Environment and Sustainability Manager; • Assist in the development and/or delivery of environmental training and awareness, e.g. project inductions, toolbox talks, pre-start, etc.; • Undertake inspections, observations, monitoring and audits as required; and • Maintain regular communication with the Environment and Sustainability Manager regarding environmental performance and conformance.

Role	Responsibilities
CDS-JV Design Manager	The environmental responsibilities of the CDS-JV Design Manager include, but are not limited to: • Ensure work is planned and executed to ensure compliance with environmental requirements; • Define and implement processes to identify environmental risks at all stages of the Project; • Ensure environmental controls appropriate to the level of risk are identified, documented and implemented; and • Identify design changes that have potential environmental and consistency consequences and ensure environmental risks associated with identified changes are assessed and controlled.
CDS-JV D&C Construction Directors	The environmental responsibilities of the CDS-JV D&C Construction Directors include, but are not limited to: • Manage the delivery of the construction process; and • Ensure work is planned and executed to maintain compliance with environmental requirements.
CDS-JV Construction Project Managers	The environmental responsibilities of the CDS-JV Construction Project Managers include, but are not limited to: • Ensure work is planned and executed to ensure compliance with environmental requirements.
CDS-JV Project / Site Engineers	The environmental responsibilities of the CDS-JV Project/Site Engineers include, but are not limited to: • Ensure appropriate mitigation and management measures are implemented and maintained on site; and • Implement corrective or preventative actions as required to fulfil the requirements of this plan.
CDS-JV Foremen / Supervisors	The environmental responsibilities of the CDS-JV Foremen/Supervisors include, but are not limited to: • Ensure appropriate mitigation and management measures are implemented and maintained on site; • Ensure regular inspections and monitoring requirements are undertaken to check effectiveness of environmental controls; • Report environmental incidents and complaints immediately.
CDS-JV Community Relations Manager	The environmental responsibilities of the CDS-JV Community Relations Manager include, but are not limited to: • Ensure environmental complaints and enquiries regarding construction works are recorded and responded to appropriately; • Develop, implement and maintain a communication strategy to facilitate communication between the CDS-JV, the Environmental Representative and WCX M5 AT; and • Effectively manage relationships with external stakeholders and ensure stakeholders are informed of upcoming works.
Independent Certifier	The environmental responsibilities of the Independent Certifier include, but are not limited to: • Receive a copy of this CEMP and provide requirements and recommendations where applicable on the CEMP and associated documents (D&C Deed); and • Independently certify that this CEMP meets the requirements of the D&C Deed.
WCX M5 AT Representative	The environmental responsibilities of the WCX M5 AT Representative include, but are not limited to: • Receive a copy of this CEMP; • Review documentation provided by CDS-JV, where required; • Review and determine Consistency Assessments and Review of Environmental Factors, as required.

Role	Responsibilities
Environmental Representative	The Environmental Representative acts independently of the Project Company, RMS, CDS-JV and any CDS-JV subcontractors. CDS-JV will nominate an Environmental Representative for the approval of the Secretary prior to commencement of construction. The environmental responsibilities of the Environmental Representative include, but are not limited to: • Advise RMS and the Project Company upon achievement of the outcomes contemplated in the Infrastructure Approval; • Advise RMS on the Project Company's and CDS-JV's compliance with the Infrastructure Approval; • Approve minor changes to this CEMP; • Review / endorse Consistency Assessments; • Approve minor changes to previously approved ancillary facilities; • Approve new minor ancillary facilities; • Communicate regularly (monthly reports) with the Secretary regarding actions and decisions on matter specified in condition D1 for the preceding month; and • Report to the Secretary at the Environmental Representative's discretion and/or at the request of the Secretary. Principally, in accordance with CoA D1, the ER shall: • Be the principal point of advice in relation to the environmental performance of the project; • Monitor the implementation of environmental management plans and monitoring programs required under this approval and advise the Proponent upon the achievement of these plans/programs; • Have responsibility for considering and advising the Proponent on matters specified in the conditions of this approval, and other licences and approvals related to the environmental performance and impacts of the project; • Ensure that environmental auditing is undertaken in accordance with the Proponent's Environmental Management System(s); • Be given the authority to approve/reject minor amendments to the Construction Environmental Management Plan. What constitutes a 'minor' amendment shall be clearly explained in the Construction Environmental Management Plan • Be given the authority and independence to require reasonable steps be taken to avoid or minimise unintended or adverse environmental impacts; and • Be consulted in responding to the community concerning the environmental performance of the project where the resolution of points of conflict between the Proponent and the community is required.
Excavation Director	The environmental responsibilities of the Excavation Director include, but are not limited to: • Comply with the NSW Heritage Council's *Criteria for Assessment of Excavation Directors* (July, 2011); • Oversee and advise on matters associated with historic archaeology; • Prepare an Archaeological Research Design and Excavation Methodology; • Be present to advise on archaeological issues and oversee excavation works in the vicinity of potential archaeological sites; and • Be notified and attend the site to assess the unexpected archaeological relics to identify their significance level and provide mitigation advice according to the significance level and the impact proposed.

2.4 Environmental Requirements

This Construction Environmental Management Plan (CEMP) and Sub-Plans have been prepared to comply with the Minister for Planning's Conditions of Approval (CoA) specifically the requirements of CoA 67 and CoA 68 for the WestConnex New M5 project. The following Compliance tables identify the project's requirements and how they are satisfied within this Plan or the wider Project Management System (PMS). REMMs are addressed in the Sub Plans of the CEMP.

Table 6 contains the CoAs directly relevant to the CEMP.

Table 7 contains the REMMs relevant to the CEMP.

Table 6: Conditions of Approval relevant to the CEMP

No.	Relevant requirement	How/where addressed
A1	In addition to meeting the specific performance criteria established under this approval, the Proponent must implement all feasible and reasonable measures to prevent and/or minimise any harm to the environment that may result from the construction or operation of the SSI.	This CEMP, including Section 3, Sub Plans Other Plans / Strategies The CDS-JV EMS has been developed and is being implemented to minimise harm to the environment. CDS-JV has developed this CEMP and sub-plans with consideration of the CoA, REMMs and good practice. Relevant environmental safeguards are included in each sub-plan.
A8	The Proponent must ensure that all licences, permits and approvals are obtained as required by law and maintained as required throughout the life of the SSI. No condition of this approval removes the obligation for the Proponent to obtain, renew or comply with such licences, permits or approvals.	Part B Element 3 CDS-JV will obtain all required licences, permits and approvals. Refer to Part B Element 3.1 for legal and other requirements and Element 3.2 for approvals, permits and licences expected to be required for the project.
A9	This approval does not apply to the operation of off-site spoil receiving locations and facilities. The receipt of spoil at these location and facilities must be undertaken in accordance with approvals or licences applying to those locations or facilities.	Construction Spoil Management Plan (M5N-CN-PLN-PWD-0002) Construction Waste and Resource Sub-Plan(M5N-ES-PLN-PWD-0008)
A12	The Proponent will be responsible for any breaches of the conditions of approval resulting from the actions of all persons that it invites onto the site, including contractors, sub-contractors and visitors.	Part B Elements 7 and 8
A14	The Proponent must prepare and implement a Compliance Tracking Program to track compliance with the requirements of this approval. The Compliance Tracking Program must be submitted to the Secretary for approval prior to the commencement of construction and operate for a minimum of 24 months following commencement of operation, subject to the Secretary's review of the outcomes of the Independent Environmental Audit Report required by condition E51. The operation of the program may be extended if the Secretary determines that there has been unsatisfactory compliance. The Compliance Tracking Program must include, but not be limited to: (a) provision for the notification of the Secretary prior to the commencement of construction and prior to the commencement of operation of the SSI (including prior to each stage, where works are being staged); (b) provision for periodic review of the compliance status of the SSI against the requirements of this approval and the environmental management measures committed to in the document referred to in condition A2(c); (c) provision for periodic reporting of compliance status to the Secretary, including but not limited to - (i) a Pre-Construction Compliance Report prior to the commencement of construction, (ii) quarterly Construction Compliance Reports, for the duration of construction,	Part B Element 3 Compliance Tracking Program (M5N-ES-PRG-PWD-0002)

No.	Relevant requirement	How/where addressed
	(iii) a Pre-Operation Compliance Report prior to the commencement of operation, and six monthly operational compliance reports; (d) a program for independent environmental auditing in accordance with *AS/NZS ISO 19011:2014 - Guidelines for Auditing Management Systems;* (e) mechanisms for recording environmental incidents during construction and actions taken in response to those incidents; (f) provision for reporting environmental incidents to the Secretary during construction, in accordance with conditions A15 and A16; (g) procedures for rectifying any non-compliance identified during environmental auditing, review of compliance or incident management; and (h) provision for ensuring all employees, contractors and sub-contractors are aware of, and comply with, the conditions of this approval relevant to their respective activities.	
A15	The Proponent must notify the EPA in relation to any pollution incident in carrying out the SSI as required by the *Protection of the Environment Operations Act 1997*. The Proponent must provide the Secretary with a record of any such notification.	Part B Element 9 Pollution Incident Response Management Plan
A16	The Proponent must notify the Secretary (using the contact name and phone number notified by the Department from time to time) of any incident (other than those relating to the *Protection of the Environment Operations Act 1997*) with actual, or potential, significant off-site impacts on people or the biophysical environment immediately of becoming aware of the incident on weekdays, or the following business day on weekends, public holidays and site shutdown. The Proponent must provide full written details of the incident to the Secretary within seven days of the date on which the incident occurred.	Part B Element 9
A17	The Proponent must meet the requirements of the Secretary or relevant public authority (as determined by the Secretary) to address the cause or impact of any incident, as it relates to this approval.	Part B Element 9
B72	The Proponent must design and construct the SSI with the objective of minimising impacts to, and interference with, third party property and infrastructure and that such infrastructure and property is protected during construction and operation. Any damage caused to property as a result of the SSI must be rectified or the landowner compensated, within a timeframe defined in the Construction Environmental Management Plan.	Refer Appendix B7 The project is being designed and constructed to minimise impacts to third party property and infrastructure. Pre- and post-construction condition surveys are being offered to all property owners within 50 m of the project. The requirement for condition surveys are also addressed in Section 8.1 and Appendix B of the Ancillary Facilities Management Plan (M5N-ES-PLN-PWD-0026) and Section 6.2 of the Noise and Vibration Management Plan (M5N-ES-PLN-PWD-0003). All complaints in relation to impacts on third party property and infrastructure will be managed in accordance with the Construction Complaints Management System, part of the Community

No.	Relevant requirement	How/where addressed
		Communication Strategy.
D1	Prior to the commencement of construction of the SSI, or as otherwise agreed by the Secretary, the Proponent must appoint a suitably qualified and experienced Environmental Representative(s) that is independent of the design and construction personnel, and that has been approved by the Secretary. The Proponent must employ the Environmental Representative(s) for the duration of construction, or as otherwise agreed by the Secretary. The Environment Representative(s) must: (a) be the principal point of advice in relation to the environmental performance of the SSI; (b) monitor the implementation of environmental management plans and monitoring programs required under this approval and advise the Proponent upon the achievement of these plans/programs; (c) have responsibility for considering, and advising the Proponent on, matters specified in the conditions of this approval, and other licences and approvals related to the environmental performance and impacts of the SSI; (d) ensure that environmental auditing is undertaken (but not undertake the audit) in accordance with the Proponent's Environmental Management System(s); (e) be given the authority to approve/reject minor amendments to the Construction Environment Management Plan. What constitutes a "minor" amendment must be clearly explained in the Construction Environment Management Plan; (f) be given the authority and independence to require reasonable steps be taken to avoid or minimise unintended or adverse environmental impacts; and (g) be consulted in responding to the community concerning the environmental performance of the SSI where the resolution of points of conflict between the Proponent and the community is required.	Section 2.3.4
D2	The Environmental Representative must prepare and submit to the Secretary a monthly report on the Environmental Representative's actions and decisions on matters specified in condition D1 for the preceding month. The reports must be submitted within seven days for the end of each month for the duration of construction of the SSI, or as otherwise agreed by the Secretary. Notwithstanding, the Environmental Representative must be given the independence to report to the Secretary at any time and/or at the request of the Secretary	Section 2.3.4
D6	A geotechnical model of representative geological and groundwater conditions must be prepared prior to excavation and tunnelling in subject area(s) to identify geological structures and groundwater features. This model must include details of proposed excavations and tunnels, construction staging, and identify surface and sub-surface structures and infrastructure which may be impacted by the SSI, including the specific attributes of those structures. The Proponent must use this model to assess the predicted settlement, ground movement, stress redistribution and horizontal strain profiles caused by excavation and tunnelling on adjacent property and infrastructure.	Geotechnical model

No.	Relevant requirement	How/where addressed
D7	The Proponent must undertake a review of property and infrastructure at risk from damage to determine appropriate settlement criteria to prevent damage, prior to commencement of construction activities that may pose a settlement risk.	A Ground Movement Assessment Report is being prepared and will fulfil this condition. This is being undertaken prior to construction that may influence ground settlement. Refer to Appendix B7 for the process to be followed in the case of any damage to third party property as a result of the project.
D67	Prior to the commencement of construction, or as otherwise agreed by the Secretary, the Proponent must prepare and implement a Construction Environmental Management Plan (CEMP) for the SSI. The CEMP is to be prepared in consultation with the, OEH, DPI (Water) and the relevant council(s). The CEMP must outline the environmental management practices and procedures that are to be followed during construction. The CEMP is to be prepared in accordance with the *Guideline for the Preparation of Environmental Management Plans* (Department of Infrastructure, Planning and Natural Resources, 2004). The CEMP must include, but not be limited to:	This CEMP has been prepared in accordance with the Guideline for the Preparation of Environmental Management Plans as identified in Section 2.2. The plan has been developed in consultation with OEH, DPI (Water) and relevant councils. Consultation requirements are identified in Section 3.2. A separate document 'Consultation Comment and Response Register' has been prepared to describe the CEMP consultation activities to date and how agency / council comments have been addressed / considered.
	(a) a description of activities to be undertaken during construction of the SSI (including staging and scheduling);	Section 2.3
	(b) statutory and other obligations that the Proponent is required to fulfil during construction, including approvals, consultations and agreements required from authorities and other stakeholders under key legislation and policies;	Part B Element 3, Part D Appendix B3
	(c) a description of the roles and responsibilities for relevant employees involved in the construction of the SSI, including relevant training and induction provisions for ensuring that employees, including contractors and sub-contractors, are aware of their environmental and compliance obligations under these conditions of approval;	Section 2.3.5 Part D Appendix B2
	(d) an environmental risk analysis to identify the key environmental performance issues associated with the construction phase; and	Part B Element 4 Part D Appendix B4 Ongoing Project risk assessments

No.	Relevant requirement	How/where addressed
	(e) details of how environmental performance would be managed and monitored to meet acceptable outcomes, including what actions will be taken to address identified potential adverse environmental impacts (including any impacts arising from the staging of the construction of the SSI). In particular, the following environmental performance issues must be addressed in the CEMP - (i) measures to monitor and manage dust emissions including dust from stockpiles, blasting, traffic on unsealed public roads and materials tracking from construction sites onto public roads, (ii) measures for the handling, treatment and management of hazardous and contaminated materials (including asbestos), (iii) measures to monitor and manage waste generated during construction including but not limited to general procedures for waste classification, handling, reuse, and disposal, use of secondary waste material in construction wherever feasible and reasonable, procedures or dealing with green waste including timber and mulch from clearing activities. and measures for reducing demand on water resources (including potential for reuse of treated water from sediment control basins); (iv) measures to monitor and manage hazard and risks, (v) measures to monitor and rectify any impacts to third party property and infrastructure, including details of the process for rectification or compensation of affected landowners, and timeframes for rectification works or compensation processes, and (vi) the sub-plans identified in condition D68.	Section 4 i. Construction Air Quality Sub-plan (CAQSP) ii. Construction Contaminated Land Management Plan (CCLMP), Construction Soil and Water Quality Sub-plan (CSWQSP) iii. Construction Waste and Resource Sub-plan (CWRSP), Construction Flora and Fauna Sub-plan (CFFSP), CSWQSP iv. CEMP and all sub-plans v. Appendix B7 and Ancillary Facilities Management Plan vi. CEMP and all sub-plans (as listed under CoA D68 below) in Part C of this document.
	The CEMP must include procedures for its periodic review and update (including the sub-plans required under condition D68), as necessary (including where minor changes can be approved by the Environmental Representative). Nothing in this condition prevents the Proponent from preparing a Stockpile Management Protocol as part of the CEMP. The CEMP must be submitted for the approval of the Secretary no later than one month prior to the commencement of construction, or as otherwise agreed by the Secretary. The CEMP may be prepared in stages; however, construction works must not commence until written approval of the relevant stage has been received from the Secretary. The approval of a CEMP does not relieve the Proponent of any requirement associated with this SSI approval. If there is an inconsistency with an approved CEMP and the conditions of this SSI approval, the requirements of this SSI approval will prevail.	Refer to Section 3.3.1 and Part B Element 12 for procedures for the periodic review and update of the CEMP. A stockpile management protocol is not currently included in the CEMP. The CEMP has been submitted for approval of the Secretary prior to commencement of construction. Refer to Section 2.3.2 for an overview of project staging All requirements associated with the project are identified in Appendix B3 through the process described in Part B, Element 3 of this CEMP.
D68	As part of the CEMP for the SSI, the Proponent must prepare and implement: a) Construction Traffic and Access Management Plan b) Construction Noise and Vibration Management Plan c) Construction Heritage Management Plan d) Construction Flora and Fauna Management Plan e) Construction Air Quality Management Plan	Section 4 Part C: Appendix A1 – A6

No.	Relevant requirement	How/where addressed
	f) Construction Soil and Water Management Plan	

Table 7: Revised environmental management measures relevant to the CEMP

No.	Relevant requirement	How/where addressed
HR01	Site-specific hazard and risk management measures would be included within the CEMP, which may include items such as: • Details of the hazards and risk associated with construction activities for both surface and subsurface works • Procedures to comply with legislative and industry standard requirements • Contingency plans, as required.	Part B Element 4
HR02	Storage of dangerous goods and hazardous materials would occur in accordance with suppliers' instructions and relevant Australian Standards and may include bulk storage tanks, chemical storage cabinets / containers or impervious bunds.	CSWQSP
HR03	Storage, handling and use of dangerous goods and hazardous substances would be in accordance with the *Work Health and Safety Act 2011* and the *Storage and Handling of Dangerous Goods Code of Practice* (WorkCover NSW, 2005).	CSWQSP
HR04	Secure, bunded areas would be provided around storage areas for oils, fuels and other hazardous liquids.	CSWQSP
HR05	Bunds would be provided around activities such as vehicle refuelling, servicing, maintenance or washdown, where there is a potential for spills and contamination.	CSWQSP
HR06	Material Safety Data Sheets would be obtained for dangerous goods and hazardous substances stored onsite prior to their arrival.	CSWQSP
HR07	Transport of dangerous goods and hazardous substances would be conducted in accordance with relevant legislation and codes, including the *Dangerous Goods (Road and Rail Transport) Regulation 2014* and the *Australian Code for the Transport of Dangerous Goods by Road and Rail* (National Transport Commission, 2008).	CSWQSP
HR08	The project would be constructed in line with Civil Aviation Safety Authority requirements, to the satisfaction of the Secretary of the Commonwealth Department of Infrastructure and Regional Development.	Part B Element 3
HR09	The project would be constructed in accordance with the requirements Civil Aviation Safety Authority and the Sydney Airport Master Plan 2033, with respect to lighting used during construction.	Part B Element 3
CI01	Consultation would be undertaken with local communities potentially affected by the impacts of multiple projects in addition to the project.	Part B Element 6 Community Communication Strategy M5N-CS-PLN-PWD-0008
CI02	Where relevant, consultation would be undertaken with proponents of other nearby developments to increase the overall awareness of project timeframes and impacts.	Part B Element 6 Community Communication Strategy M5N-CS-PLN-PWD-0008

Table 8: Environmental approvals, permits and licences relevant to the construction phase

Approval/ permit/ licence	Regulatory authority	Timeframe	Status
Instrument of Approval under the EP&A Act	Minister for Planning	Prior to commencement of works	SSI 6788 approved 20th April 2016
Environment Protection Licence (EPL) will be required for activities listed in Schedule 1 of the POEO Act	Environment Protection Authority (EPA)	Prior to scheduled activity or works that enable a scheduled activity	EPL #20772 obtained 17th May 2016 EPL #4627 transferred to CDS-JV 20th June 2016
Controlled activity approval under the EPBC Act (Commonwealth)	Minister for the Environment (Commonwealth)	Prior to commencement of works	EPBC approval obtained 11th July 2016

Note that Aquifer Interference approvals under the *Water Management Act 2000*, are not yet enabled and RMS will continue to liaise with DPI (Water) in regards to ongoing licensing requirements under this Act (refer Appendix B3).

2.5 Objectives and Targets

The Project has set the following environmental performance Objectives and Targets:

- Establish and maintain an environmental management system in accordance with AS/NZS ISO 14001, contract requirements and relevant legislation
- Regularly review business operations, identify and implement opportunities for improvement
- Educate our Project team including sub-contractors on key environmental issues, management controls
- Prevent pollution, reduce waste and commit to recovery and recycling
- Restore/enhance natural environments, implement social benefits such as safer travel and local employment, as well as to deliver the Project efficiently and in a commercially sound manner
- Ensure relevant RMS Specification D&C Hold Points are adhered to

The Project Environmental Performance Targets are identified in Table 9 and Table 10.

Table 9: Leading indicators for the Project

Key performance indicator	Target	Timeframe	Actions to be undertaken	Accountability
Job safety and environmental observations	Four observations conducted per month by Supervisors to Project Director	Each month	Four observations to be performed by each member of the leadership team per month	Project leadership team
Completion of inspections	100 per cent of scheduled inspections of environmental controls occur weekly	Weekly	Inspections of environmental controls to be identified, scheduled and conducted	Site managers

Table 10: Lagging indicators for the Project

Key performance indicator	Target	Timeframe	Actions to be undertaken	Accountability
Class 1, 2 & High Potential environmental incidents	Zero	Ongoing	Implementation of the CEMP	Project Director
Environmental Representative Stop Work Recommendations	Zero	Ongoing	Work in accordance with all approvals and plans	Project Director
Compliance audits (Internal) Schedule	No major non-compliance	Ongoing	Consistent application of plans	Project Director
Compliance audits (External) from Environmental Representative, the Independent Verifier and Client	No major non-compliance	Ongoing	Consistent application of plans	Project Director

2.6 Key Environmental Stakeholders

Key environmental stakeholders for the Project are detailed in Table 11.

Table 11: Key Environmental Stakeholders

Stakeholder Name
Department of Planning and Environment
Environment Protection Authority
Office of Environment and Heritage
Department of Primary Industries (Fisheries)
Department of Primary Industries (Water)
Heritage Council of NSW
Sydney Motorway Corporation
Roads and Maritime Services
Local Councils including: Canterbury-Bankstown, City of Sydney Inner West, Bayside and Georges River.
Local Chambers of Commerce
WestCON Community Action Groups

NSW Premier Mike Baird and the Minister for Local Government Paul Toole announced the merger of councils into new councils in NSW commencing 12 May 2016:

- Canterbury-Bankstown Council: The merger of Bankstown City and Canterbury City councils;
- Inner West Council: The merger of Ashfield, Leichhardt Municipal and Marrickville councils; and
- Georges River Council: The merger of Hurstville City and Kogarah City councils.

An announcement was also made regarding the pending merger of City of Botany Bay and Rockdale City council.

For further details regarding agency consultation, refer to Section 3.2, and Table 14.

3. Environmental Management System

3.1 System Overview

3.1.1 Governance documentation

An Environmental Management System has been developed for the Project based on the CPB Contractors Management System (which includes the CPB ISO:14001 accreditation) and comprises documentation as set out below and illustrated in Figure 4.

- **The Way We Operate** - explains the core priorities of the CDS-JV culture to be demonstrated by all employees and applied in all aspects of running the Project.
- The **Environmental Policy** - explains the principles we will apply in operating our Project to achieve our environmental performance objectives and targets.
- The **Elements and Expectations** - provide more specific detail on what is expected of the Project in managing the environment. This is a layer of governance against which the Project must be able to demonstrate compliance at all times.
- The **Construction Environmental Management Plan** (CEMP) - outlines the environmental management practices and procedures that are to be followed during the construction of this Project. It provides the overall framework for the system and procedures to ensure environmental impacts are minimised and legislative and other requirements are fulfilled.
- The **Construction Environmental Sub Plans -** have been prepared to identify requirements and processes applicable to specific impacts or aspects of the Project's activities. The Sub Plans address the requirements identified in the CoA; revised environmental management measures from the EIS and the SPIR; and other requirements where applicable.
- The **Procedures, Knowledge and Tools** - provide additional detail to support the CEMP in achieving compliance with Elements and Expectations.
- The **Site Environmental Plans** (SEPs) - are site specific detailed plans illustrating key environmental controls and requirements.

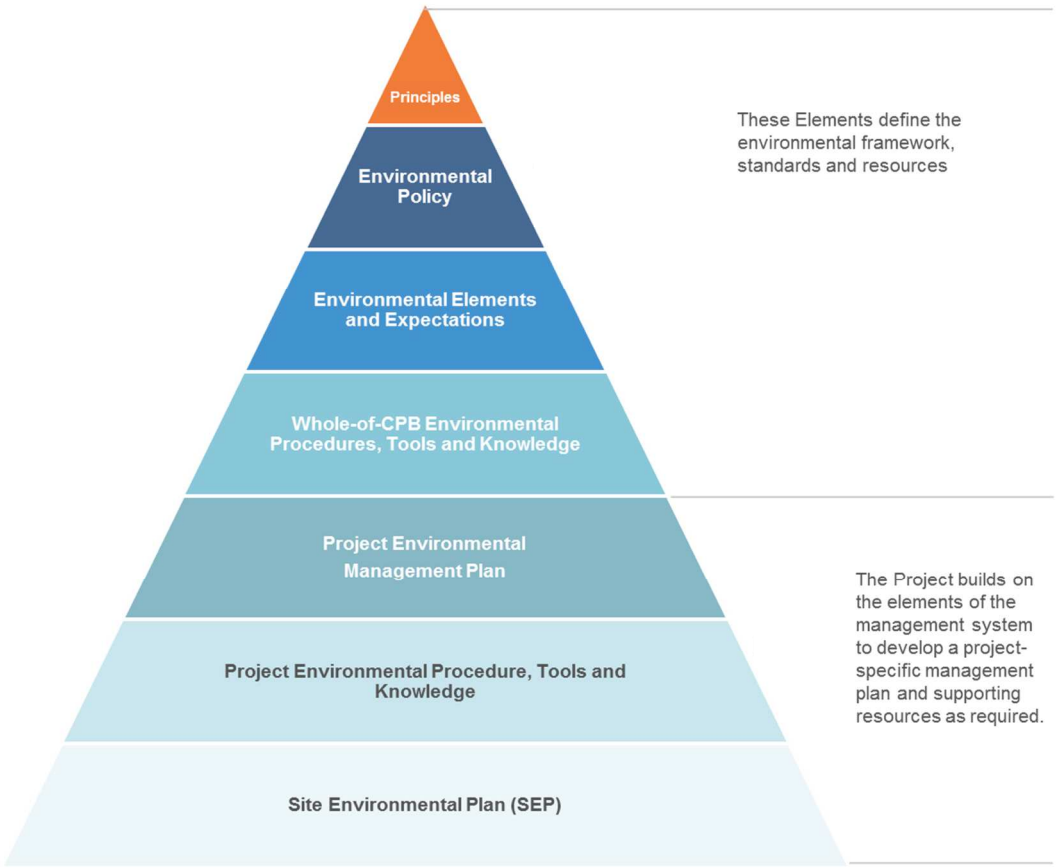


Figure 4: Elements of the Management Plan

3.1.2 Construction Environmental Management Plan (CEMP)

The CEMP describes the actions to be taken by the Project to comply with each Element and Expectation of the CDS-JV EMS.

This CEMP outlines the environmental management practices and procedures that are to be followed during the construction of this Project. It provides the overall framework for the system and procedures to ensure environmental impacts are minimised and legislative and other requirements are fulfilled.

The environmental management measures defined in this CEMP have been developed with consideration of the project requirements and safeguards and revised environmental management measures presented in the Submissions and Preferred Infrastructure Report.

This CEMP is consistent with:

- Guideline for the Preparation of Environmental Management Plans (DIPNR, 2004); and
- Roads and Maritime Specification D&C G36 – Environmental Protection.

3.1.3 Procedures, Knowledge and Tools

Procedures provide additional detail to support the CEMP in achieving compliance with Elements and Expectations.

Knowledge and Tools used in the implementation of the CEMP include templates, forms, training material and information technology systems. Procedures that will be implemented through this CEMP include:

- Manage Soil and Water Procedure (M5N-ES-PRC-PWD-0035)
- Manage Contaminated Land Procedure (M5N-ES-PRC-PWD-0036)
- Manage Work with Asbestos Procedure (M5N-ES-PRC-PWD-0037)
- Manage Acid Sulfate Soils Procedure (M5N-ES-PRC-PWD-0038)
- Manage Cultural Heritage Procedure (M5N-ES-PRC-PWD-0039)
- Manage Air Quality Procedure (M5N-ES-PRC-PWD-0040)
- Manage Hazardous Substances Procedure (M5N-ES-PRC-PWD-0041)
- Manage Flora and Fauna Procedure (M5N-ES-PRC-PWD-0042)
- Manage Environmental Noise Procedure (M5N-ES-PRC-PWD-0043)
- Manage Waste Procedure (M5N-ES-PRC-PWD-0044).

3.1.4 Construction Environmental Sub Plans

Construction Environmental Sub Plans have been prepared to identify requirements and processes applicable to specific impacts or aspects of the Project's activities. The Sub Plans address the PA requirements, other requirements, Revised Environmental Management Measures EIS and the SPIR where applicable.

The revised environmental management measures are a result of the progressive assessment process of the New M5 project. Initially, environmental management measures are proposed and documented in the New M5 EIS to minimise or manage potential environmental or social impacts. The EIS was placed on public exhibition and a Submissions and Preferred Infrastructure Report was prepared to respond to those issues raised by stakeholders during the exhibition period. The Submissions Report includes revised environmental management measures (REMMs) presented to address potential environmental or social impacts and issues raised during public exhibition of the EIS or as a result of additional assessment.

The list of construction environmental management sub plans, which include the relevant REMMs, that have been prepared for implementation through this CEMP include:

- Construction Air Quality Sub Plan (M5N-ES-PLN-PWD-0002)
- Construction Noise and Vibration Sub Plan (M5N-ES-PLN-PWD-0003)

- Construction Traffic and Access Sub Plan (M5N-ES-PLN-PWD-0004)
- Construction Soil and Water Quality Sub Plan (M5N-ES-PLN-PWD-0005)
- Construction Heritage Sub Plan (M5N-ES-PLN-PWD-0006)
- Construction Flora and Fauna Sub Plan (M5N-ES-PLN-PWD-0007).

Consistent with CDS-JV requirements, the following plans are also included:

- Construction Contaminated Land Management Plan (M5N-ES-PLN-PWD-0033).

A Construction Waste & Resource Sub Plan (M5N-ES-PLN-PWD-0008) has been prepared as a Sub Plan of the Sustainability Plan (M5N-ES-PLN-PWD-0020) and is also referred to in this CEMP.

Construction ancillary facilities are proposed to be established upon the Secretary's approval of the AFMP. Once established, the operation of the compounds would be managed in accordance with the approved CEMP and sub plans.

3.1.5 Site Environmental Plans

Site Environmental Plans (SEPs) are A3 plans that provide a visual display on a GIS aerial map of environmental constraints, physical protection measures and other key management measures to minimise impacts from construction activities on the environment and community. The reverse side of the A3 plan identifies the key controls specific to the construction area.

The SEPs are developed as the Project progresses and site conditions evolve to meet construction and permanent facilities requirements.

The SEPs will incorporate but not limited to the following:

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

The erosion and sediment control features of the SEPs consider *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 Project's Soil Conservationist, Supervisor, Foreman and Environment and Sustainability Manager, would prepare and update the SEPs. An update to the SEPs will not require the CEMP or sub plans to be updated as they will be a separately controlled document to the CEMP.

3.1.6 Other Plans, Strategies and Documents

A number of other plans, strategies and documents are required to be prepared under the CoA and other project requirements. The CEMP will reference these documents in relation to the source for the relevant compliance information and management requirements. These documents include but are not limited to the following:

- Geotechnical Model
- Spoil Management Plan
- Local Road Dilapidation Report
- Community Communication Strategy
- Ancillary Facilities Management Plan
- Road Safety Audits
- Green and Golden Bell Frog Plan of Management
- Biodiversity Offsets Package

- Design Plan
- Urban Design and Landscape Plan
- Solar Access and Overshadowing Report
- Flood Mitigation Strategy
- Sustainability Plan.

3.1.7 Synergy

Synergy is the Safety and Environmental reporting information technology system that will be used on the Project and consists of multiple modules including:

- SHE management – events including incidents, reportable events, hazards, stakeholder contacts, regulatory visits
- Metrics – environmental data such as material, water, energy and wastes
- Compliance – general applicability, typically used to track conditions and reporting
- Actions – assign and track actions

3.1.8 Hold Points

Internal Hold Points

CDS-JV management systems and processes establish internal hold points for key activities that require environmental management measures to be in place as identified in Table 12.

Table 12: Internal hold points

Process held	Permit / approval required	Where addressed
Activities outside of normal construction hours	Out of Hours Works Approval	Manage Environmental Noise Procedure Out of Hours Works Protocol CNVSP
Clearing/pruning vegetation, demolition, disturbing / excavating new area	Permit to Clear Land and Vegetation	Manage Flora and Fauna Procedure CFFSP
Discharge of all dewatering operations, including sediment basins and excavated areas retaining water	Permit to Dewater	Manage Soil and Water Procedure CSWQSP
Establishment of new minor ancillary facility	Minor Ancillary Facilities Permit	Ancillary Facilities Management Plan
Discovery of unexpected contamination	Project Manager approval	Manage Contaminated Land Procedure CCLMP
Discovery of unexpected heritage	Environment & Sustainability Manager approval	Manage Cultural Heritage Procedure CHSP
Discovery of unexpected threatened species	Environment & Sustainability Manager approval	Manage Flora and Fauna Procedure CFFSP

Other Hold Points

Other hold points from specifications are included in Table 13 and will be incorporated into work procedure documentation (e.g. Procedures, Construction Area Plans, Work Packs, and/or Inspection and Test Plans).

The commencement or recommencement of works may require release of a hold point by the CDS-JV Environment and Sustainability Manager or delegate.

Table 13: Other hold points

Hold Point Reference	Process held	Submission details	Where addressed
RMS D&C Specification G36			
3.1	Commencement of work not previously addressed by CEMS and CEMP documents and authorised by earlier Hold Point release.	At least ten (10) working days prior to the proposed commencement of the stage of Work Under the deed, submit the CEMP and associated sub-plans, EWMS and documents	Element 4
3.2.2	Commencement of any activity requiring an approval, licence and/or permit from an appropriate authority.	At least five (5) working days prior to the activity, provide to the RMS Representative evidence of receipt of the approval, licence and/or permit from the relevant authority.	Element 3
3.10	Any activity that causes or has the potential to cause harm to the environment due to your failure to meet your environmental obligations under the deed.	Verification that the failure has been rectified, and details of the measures implemented to prevent recurrence.	Element 9
4.2	Activities within the vicinity of actual or suspected contaminated land.	At least five (5) working days prior, submit your Remediation Action Plan to be prepared by you, and relevant procedures.	CCLMP
4.7	Commencement of blasting, pile driving, excavation by hammering or ripping, dynamic compaction or demolition operations or any other activities which may cause damage through vibration or air blast.	At least ten (10) working days prior, submit to the RMS Representative a copy of the Building Condition Inspection Reports and Vibration and Air Blast Management Sub-Plan or the combined Noise and Vibration Management Sub-Plan (where blasting is not required).	CNVSP
4.11	Transport of waste to a place that is not owned by RMS and is not a licensed waste facility.	Completed and signed original copy of ‘s.143 Notice’ received from the landholder receiving the waste with evidence that the Waste Site has the appropriate planning consent.	CWRSP
4.13	Working in or near environmentally sensitive areas	At least five (5) working days prior, provide to the RMS Representative a copy of the EWMS for working in or near the environmentally sensitive areas and written notice that the environmentally sensitive areas are clearly delineated with locations and boundaries signposted.	SEP’s
4.15.2	Taking possession of any land nominated or authorised by the Principal for use for the Contractor’s site facilities.	Pre-construction land condition assessment report for each area which you intend to use for the Contractor’s site facilities, and evidence of any necessary statutory and environmental approvals.	Construction Area Plans
RMS D&C Specification G38			
3.1.1	Commencement of work requiring the installation of erosion control and	Drawings prepared progressively for sections of the Site where work is to commence. The	CSWQSP

	sediment capture measures not previously addressed by ESCP and authorised by earlier Hold Point release.	drawing(s) must be submitted at least ten working days before disturbance of the surface of the section of the Site.	
3.1.1	Disturbance of the existing surface on a section of the site, other than for the installation of erosion and sediment capture measures.	Written advice that the measures described in the ESCP and included on the drawing submitted progressively for that section of the Site have been implemented or the date by which implementation will be completed. The advice must be forwarded at least five working days before the works are to commence.	CSWQSP
RMS D&C Specification G40			
2.4	Clearing any area of work.	Clearing and Grubbing Plan (Annexure G40/D) and report on the presence of weeds and unsound trees together with written notice that limits of clearing and areas of weed infestation identified in the ecologist report (Clause 2.4 (a) are marked), at least seven days before starting any clearing.	CFFSP

3.2 Consultation

Extensive stakeholder consultation has been undertaken throughout the development of the preliminary concept design and through exhibition of the EIS. EIS consultation included community information sessions, small group meetings and face-to-face meetings, where appropriate. Responses to submissions received during the EIS exhibition period are addressed in the Submissions (and Preferred Infrastructure) Report. Project information has also been provided via community updates and the project website. Outcomes from the Submissions Report and final Revised Environmental Management Measures (REMMs) have been included in this CEMP and associated sub-plans.

This CEMP (and associated sub plans) has been prepared in consultation with the relevant stakeholders as identified in Table 14. The CEMP has been provided to the following stakeholders:

- Canterbury-Bankstown Council
- Bayside Council
- City of Sydney Council
- Georges River Council
- Inner West Council
- Department of Primary Industries – Water
- Office of Environment and Heritage

Feedback has been received from the Office of Environment and Heritage (OEH) and the Department of Primary Industries (DPI) Water. These comments have been addressed in the CEMP and/or Community Communication Strategy. Responses related to clarification of legislative requirements for the project, clarification of mitigation strategies for impacts to third party property and infrastructure, and the need for identification of waterways and riparian zones. Marrickville Council (now Inner West Council) responded following review of the CEMP noting that it was an adequate procedural document.

CDS-JV responses to feedback received are included in the Consultation Comment and Review Register, which has been provided to DP&E for information.

Consultation requirements for documents other than the CEMP that are required by the CoA are summarised in Table 15.

Ongoing consultation with stakeholders, including the surrounding community, will be conducted throughout construction in accordance with the Community Communication Strategy.

Table 14: CEMP consultation required by the CoA and REMMs

CEMP / sub-plan	Dept of Planning and Environment	Dept of Primary Industries (Water)	Office of Environment and Heritage	Environment Protection Authority	Heritage Council of NSW	Aboriginal Stakeholders	Local Government	Emergency Services	Landowners / Community/ Misc Groups	Other
Construction Environment Management Plan	**A**	**C**	**C**				**C**			
Construction Noise and Vibration Sub Plan	**A**	**C**	**C**				**C**			
Out of Hours Work Protocol	**A**	**C**	**C**	**C**			**C**			
Construction Traffic and Access Sub Plan	**A**	**C**	**C**				**C**	**C**	**C**	**C**
Construction Soil and Water Quality Sub Plan	**A**	**C**	**C**	**C**			**C**			
Acid Sulfate Soils Sub Plan	**A**	**C**	**C**				**C**			
Construction Heritage Sub Plan	**A**	**C**	**C**		**C**	**C**	**C**			**C**
Construction Flora and Fauna Sub Plan	**A**	**C**	**C**				**C**			
Construction Air Quality Sub Plan	**A**	**C**	**C**	**C**			**C**			
Construction Waste and Resource Sub Plan		**C**	**C**				**C**			

A = Approval Required
C = Consultation Required
S = Submission Required

Table 15: Consultation requirements for other documents required by the CoA and REMMs

	Dept of Planning and Environment	Dept of Primary Industries	Dept of Primary Industries (Water)	Office of Environment and Heritage	Environment Protection Authority	Department of Environment	Heritage Council of NSW	Aboriginal Stakeholders	Roads and Maritime Services	Local Government	Emergency Services	Landowners / Community/ Misc Groups	Sydney Water	Other	Environmental Rep
Flood Review Report (CoA B25)	S			C						C		C			
Groundwater Modelling Report (CoA B27)	S		C												
Site Audit Statement (CoA B31)	S									S					
Urban Design and Landscape Plan (CoA B61)	A						C			C		C		C	
Compliance Tracking Program (CoA A14)	A														
Community Communication Strategy (CoA C1)	A														
Ancillary Facilities Management Plan (CoA D57)	A									C					
Arncliffe Construction Compound Sub-plan (CoA D58)	A			C											
Spoil Management Plan (Consistent with CTAMP) (CoA D51)	A									C					
Solar Access and Overshadowing Report (CoA B65)	S														
Blast Management Strategy (CoA D28)	S				C										
Water Quality Plan and Monitoring Program (CoA B28, REMM GW13)	A	C	C		C					C			C		
Green and Golden Bell Frog Plan of Management (CoA B14)	A			C											
Habitat Creation and Captive Breeding Plan (CoA B15)	A			C											
Biodiversity Strategy Progress Report (CoA B12)	S														
Biodiversity Offset Package (CoA B13)	A			C		C									
Flood Mitigation Strategy (CoA B23, REMM FD01)	S		C	C						C	C	C	C		

	Dept of Planning and Environment	Dept of Primary Industries	Dept of Primary Industries (Water)	Office of Environment and Heritage	Environment Protection Authority	Department of Environment	Heritage Council of NSW	Aboriginal Stakeholders	Roads and Maritime Services	Local Government	Emergency Services	Landowners / Community/ Misc Groups	Sydney Water	Other	Environmental Rep
Stormwater Drainage Report (CoA B29)	S									C					
Water Reuse Strategy (CoA B30)	A														
Landfill Closure Management Plan (CoA B32)	S				C										
Heritage Interpretation Plan (CoA B40, REMM NAH16, NAH17)	S						C			C			C		
Pedestrian and Cycleway Network Review (CoA B50)	A									C		C			
Pedestrian and Cycle implementation Strategy (CoA B51)	S									C		C			
Local Road Dilapidation Report (CoA B59)										S					
Tree Report (CoA B63)	A														
Community and Social Management Plan (CoA B66)	A									C		C			
Residual Land Management Plan (CoA B67)	A									C					
Temporary Noise Barrier Strategy (CoA D20)	A											C			
Heritage and Contributory Item Archival Recording and Research Report (CoA D37)	S						S			S		S			
Heritage Conservation Area Archival Recording and Research Report (CoA D38)	S						S			S		S			
Archaeological Research Design and Excavation Methodology (CoA D39, REMM NAH03)				C			C								
Archaeological Relics Management Plan (CoA D40)	C						C								
Excavation Report (CoA D41)	S						S			S		S			
Construction Parking and Access Strategy (CoA D50)	A														

	Dept of Planning and Environment	Dept of Primary Industries	Dept of Primary Industries (Water)	Office of Environment and Heritage	Environment Protection Authority	Department of Environment	Heritage Council of NSW	Aboriginal Stakeholders	Roads and Maritime Services	Local Government	Emergency Services	Landowners / Community/ Misc Groups	Sydney Water	Other	Environmental Rep
Construction Contamination Management Plan (CoA D54)	**S**				**C**					**C**					
Drainage Strategy for Camdenville Park (REMM FD17)										**C**					
Alexandra Canal Contamination Management Plan (REMM CM11)					**C**								**C**		

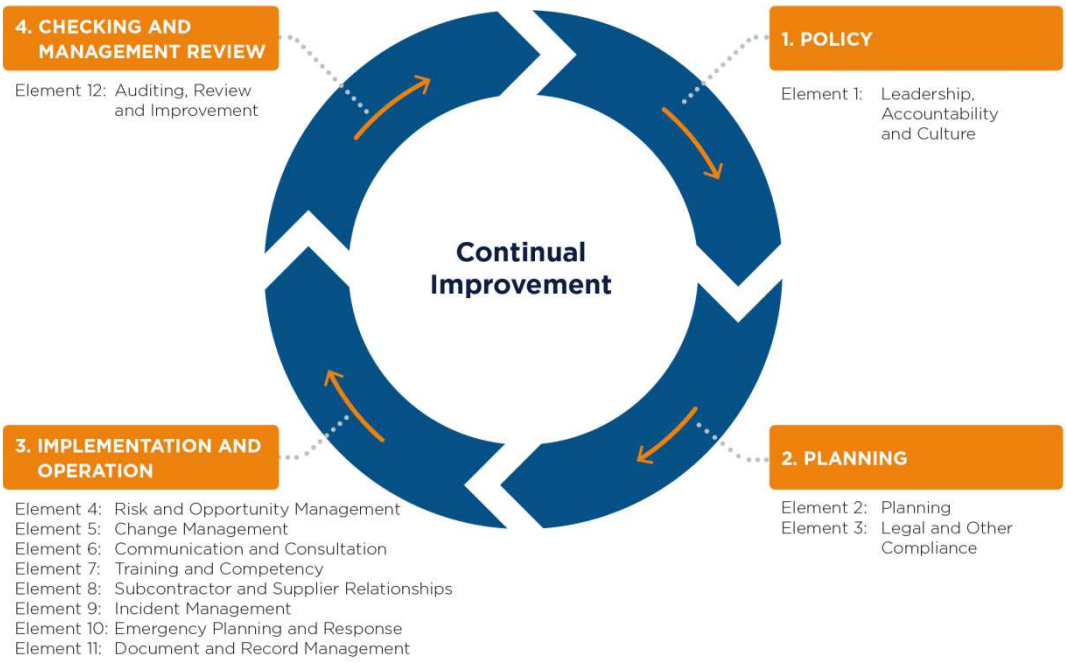
A = Approval Required
C = Consultation Required
S = Submission Required

3.3 Improvement

In addition to specifying the day-to-day environmental management of the Project, the CEMP details activities performed to deliver continuous improvement in environmental performance (Figure 5).

Continual improvement is achieved through constant measurement and evaluation, audit and review of the effectiveness of the CEMP and adjustment and improvement of the CEMP, Project environmental outcomes, and CDS-JV EMS

Figure 5: Continuous Improvement Mechanism



3.3.1 Revision of this Plan

This CEMP will be updated as required:

- To take into account 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 the NSW Department of Planning and Environment or any other Authority; or
- In response to internal or external audits or annual management reviews.
- Changes that effect components of the construction program in this CEMP

The updated plan must be endorsed by the Environment and Sustainability Manager and approved internally by the Project Director. Minor changes may be approved by the Environmental Representative. Minor changes would typically include those that:

- Are editorial in nature (e.g. staff and agency/authority name changes);
- Do not increase the magnitude of impacts on the environment when considered individually or cumulatively;
- Are in response to audit findings or periodic reviews; or
- Do not compromise the ability of the project to meet approval or legislative requirements.

Where the Environmental Representative deems it necessary, the CEMP or sub-plans will be provided to relevant stakeholders for review and comment if required and forwarded to the Secretary of DP&E for approval. Revisions to the plan will be provided to the Project Company for review prior to submission to stakeholders or the NSW Department of Planning and Environment.

3.4 Interactions with Other Management Plans

This CEMP is part of an integrated set of Project Plans. Table 16 below sets out interactions of this CEMP with the other plans with specific linkages between Plans addressed in Part B.

Table 16: CEMP Interactions with other plans

Project Management Plan Construction Environmental Management Plan							
Element of CEMP	**Design**	**Construction**	**Safety**	**Risk**	**Commercial**	**HR**	**Community & Stakeholder**
Leadership, Accountability and Culture			●			✓	
Planning			●		✓	●	
Legal and Other Compliance	✓	✓	●				●
Risk Management and Controls	✓	✓	✓	✓		●	
Change Management	●	●	●	●	●	●	●
Communication, Consultation and Participation			✓			✓	✓
Training and Competency			●			✓	
Subcontractor and Supplier Relationships	●		●	●	✓		
Incident Management			✓				●
Emergency Planning and Response			✓	●	●	●	●
Document and Records Management	●	●		●	●	●	●
Auditing, Review and Improvement			✓	●			

● Element (or subject) also addressed in other Plans
✓ Other plan directly interfaces with the Construction Environmental Management Plan

4. Significant Environmental Hazards and Environmental Sub Plans

This CEMP also includes Environmental Sub Plans (Part C), required by CoA D67(e)(vi) and D68, for environmental hazards which have been prepared in accordance with Project procedures. Environmental Sub Plans have been identified through the review and analysis of environmental reports, contractual documents, community and legal compliance requirements relating to the Project and professional experience. Each of the Environmental Sub Plans listed below and will be regularly reviewed during construction as the Project Risks Preview.

Table 17: Significant environmental hazards and associated environmental sub plans

Significant Environmental Hazards (Aspect)	Associated Potential Environmental Impact (Risk)	Environmental sub plans (Part C)
Tunnel excavation (evening and nights) and night time surface construction in accordance with CoA and EPL conditions	Noise, vibration and ground borne noise Sleep disturbance Community complaints, prosecution and fines	Construction Noise and Vibration Sub Plan
Spoil Haulage and re-use	Traffic delays Missed opportunities to maximise beneficial re-use Dust Noise Tracked sediment onto roads	Construction Traffic and Access Sub Plan Construction Air Quality Sub Plan Construction Noise and Vibration Sub Plan Construction Waste and Resource Sub Plan Construction Soil and Water Quality Sub Plan
Earthworks including surface excavations and installation of services generating dust and sediment laden runoff, disturbing acid sulfate soils and contaminated land	Community complaints Pollution of stormwater and waterways Pollution of groundwater Further contamination of soil Prosecution and fines Discovery of unidentified Aboriginal heritage artefact	Construction Soil and Water Quality Sub Plan Construction Air Quality Sub Plan Construction Heritage Sub Plan
Properties adjacent to works/ not acquired where direct neighbours have been acquired	Footprint not minimised Community disquiet Noise/dust from works Asbestos dust from demolitions	Construction Soil and Water Quality Sub Plan Construction Air Quality Sub Plan Ancillary Facilities Management Plan
Installation of piles (driven and bored) near heritage sites and the public	Community complaints, prosecution and fines Damage to heritage site, residence and commercial premises from vibration	Construction Noise and Vibration Sub Plan Construction Heritage Sub Plan
Establishment of site Buildings, workshop, chemical storage and site access points. **General plant operation on public roads**	Contamination of soil and stormwater from spills Community complaints for loss of amenity, parking, increased traffic on roads and new access points	Ancillary Facilities Management Plan Construction Traffic and Access Sub Plan

Significant Environmental Hazards (Aspect)	Associated Potential Environmental Impact (Risk)	Environmental sub plans (Part C)
Tunnelling generating sediment-laden groundwater and dewatering	Contamination of stormwater and waterways Community complaints, prosecution and fines Further contamination of soil Changes to groundwater level and quality	Construction Soil and Water Quality Sub Plan
Concreting works for structures, services generating concrete washout	Contamination of soil and stormwater	Construction Soil and Water Quality Sub Plan Construction Waste and Resource Sub Plan
Waste collection and storage	Litter, co-mingling, unwanted attraction of fauna, contamination of soil Fines for inappropriate disposal	Construction Waste and Resource Sub Plan
Vegetation clearing, both within approved and non-approved areas, generating dust and sediment laden runoff	Clearing outside of approved area Clearing of listed vegetation species Injury to fauna Community complaints Pollution of stormwater and waterways Prosecution and fines Discovery of unidentified Aboriginal heritage artefact Green and Gold bell Frog Impacts	Construction Flora and Fauna Sub Plan Construction Soil and Water Quality Sub Plan Construction Air Quality Sub Plan Construction Heritage Sub Plan
Demolition of buildings, both within approved and non-approved areas, generating dust	Clearing outside of approved area Clearing of heritage items Asbestos dust or other hazardous material Missed opportunities to maximise beneficial re-use Unexpected contamination soil	Construction Heritage Sub Plan Construction Waste and Resource Sub Plan Construction Air Quality Sub Plan Construction Soil and Water Quality Sub Plan

Part B: Implementation

Elements and Expectations

This section outlines in detail the key aspects for environmental management on the Project including:

- Expectations
- How they will be met
- Responsibilities
- Associated deliverables

The Construction Environmental Management Plan is structured using a common set of Elements and Expectations:

Element	Key aspects for managing this function on the Project
Expectation	The high-level outcomes achieved as part of each Element

Those Elements are:

- Element 1: Leadership, Accountability and Culture
- Element 2: Planning
- Element 3: Legal and Other Requirements
- Element 4: Risk and Opportunity Management
- Element 5: Change Management
- Element 6: Communication and Consultation
- Element 7: Training and Competency
- Element 8: Subcontractor Relationships
- Element 9: Incident Management
- Element 10: Emergency Planning and Response
- Element 11: Document and Record Management
- Element 12: Auditing, Review and Improvement

Element 1: Leadership, Accountability and Culture

All staff, employees and subcontractors will actively drive continuous improvement in environmental performance on the Project				
Expectations	**Procedures**	**How will we meet the expectation?** **(minimum requirements)**	**Responsible** Key Contributor	**Deliverables**
1.1 Environmental accountabilities, roles and responsibilities for managers, staff, employees and subcontractors are clearly defined, documented and communicated	D&C Deed Position description	**CDS-JV Responsibilities** CDS-JV shall ensure that employees, contractors and sub-contractors are aware of, and comply with, the conditions of this approval relevant to their respective activities CDS-JV shall be responsible for environmental impacts resulting from the actions of all persons that it invites onto the site, including contractors, sub-contractors and visitors. **Employee roles and responsibilities** Environmental responsibilities are included in all Position Descriptions. Roles that carry specific environmental accountabilities (e.g. those that supervise or manage work with specific environmental risks) will contain more detailed environmental content. The environmental responsibilities contained in Position Descriptions are communicated to each person by their immediate supervisor upon commencing in their role. Environmental performance goals will be set for individuals with environmental leadership roles. These will be assessed during the performance and development review process for relevant Employees.	**People and Capability Manager** **Support Services Director** Project Director Environmental and Sustainability Manager Line Managers	Position descriptions
1.2 Environmental leadership and commitment is demonstrated through measurable participation in environmental management	Leadership and Culture Procedure (M5N-ES-PRC-PWD-0017)	**Participation and measurement** All personnel in leadership roles on the Project participate in environmental management activities, including observations, incident reviews and Health Safety and Environment (HSE) committee meetings. In addition, Project management will: • Regularly review environmental performance against Project key performance indicators (KPIs) and raise corrective actions to maintain or improve environmental performance as necessary • Address pertinent environmental matters at communication forums.	**Project Director** Support Services Director Line managers Supervisory staff Environmental and Sustainability Manager	Measurement system output to include: - Observation records - Incident reviews - HSE Committee meeting (minutes) - Delivering toolbox talks
1.3 Environmental	Counseling and	**Environmental policy**	**Project Director**	Environmental policy

All staff, employees and subcontractors will actively drive continuous improvement in environmental performance on the Project				
Expectations	**Procedures**	**How will we meet the expectation?** **(minimum requirements)**	**Responsible** Key Contributor	**Deliverables**
expectations are clearly defined with appropriate reward and disciplinary processes in place	Discipline Employee Procedure (M5N-PC-PRC-PWD-0001)	A Project specific Environmental Policy (Appendix B1) has been developed by CDS-JV and communicated in Project inductions and prominently displayed at the Project. The Policy has been signed off by the Project Director **Project environmental rules** The Project Director and Environmental and Sustainability Manager will develop environmental rules at Project start-up to address key environmental matters. These rules will be documented, communicated and prominently displayed at the Project and will be reviewed at least every six months. Any person who breaches these rules will be managed in accordance with CDS-JV requirements for counseling, discipline and, if needed, termination. **Performance targets** Environmental performance targets for the Project have been identified in section 2.5 of this document. KPI's include lead and lag indicators. Measurable targets have been set for each KPI and an applicable time frame nominated. The targets are in line with CDS-JV Group and Business Unit targets.	Support Services Director People and Capability Manager	displayed and communicated in site inductions Project environmental rules KPIs defined
	Conduct Performance and Development Review Procedure (M5N-PC-PRC-PWD-0002)	**Managing personal performance** Environmental performance goals will be set for individuals with environmental leadership roles (refer to Element 1.1 above) during the performance and development review process. Performance and development reviews occur regularly and include an assessment of performance against any individual environmental goals in addition to Project environmental KPIs.	**Support Services Director** Line Managers People and Capability Manager	Performance and development reviews

Element 2: Planning

We will formally and systematically plan for effective environmental management on the Project.				
Expectations	**Procedures**	**How will we meet the expectation?** **(minimum requirements)**	**Responsible** Key Contributor	**Deliverables**
2.1 Adequate resources are provided to effectively implement the CEMP	Project Management Plan (M5N-PM-PLN-PWD-0001)	**Resources** The Project budget includes sufficient allowances to implement the CEMP, including people, technical environmental expertise, equipment, materials, training, plant, and infrastructure. The Environmental and Sustainability Manager is consulted in setting and revising (forecasting) the Project budget on a weekly to monthly basis. Sufficient people are appointed to the Project to implement the CEMP. The Project organisation chart within the Project management plan illustrates the resources allocated specifically to environmental management.	**Support Services Director** Commercial Director Environmental and Sustainability Manager People and Capability Manager	Project budget Project forecasts Organisational structure in Project Management Plan (M5N-PM-PLN-PWD-0001) Training matrix Training schedule
	MIRRA (Monitoring, Inspections, Reporting, Review, Audit) Schedule	**Environmental monitoring** The Environmental and Sustainability Manager is accountable for developing the Environmental Monitoring Schedule prior to any works commencing on the Project. The schedule will be tracked using Synergy. The Environmental and Sustainability Manager will identify all equipment, equipment maintenance (including calibration) and personnel required to implement the schedule and ensure necessary allowances in the Project budget and forecasts. All environmental monitoring on the Project is planned according to the requirements of the procedure Environmental Monitoring and is defined where relevant in the environmental sub plans within Part C of this Plan.	**Environmental and Sustainability Manager**	Environmental Monitoring Schedule Environmental Sub Plans Environmental input into Project budget Project forecasts Synergy
2.2 IT systems are defined and established		**Define and set up IT Systems** Information technology systems required to manage environment on the Project are defined and established prior to works commencing. Systems to be used include: • Synergy – Reporting and recording all environmental incidents, audit results and corrective actions • ARMs – To manage environmental risk registers • JD Edwards (NGER module) to capture energy use and emissions, and water and waste data • GIS – To assist in the development of SEP's across the Project	**Environmental and Sustainability Manager**	Synergy Prism set up and containing data SEP's

We will formally and systematically plan for effective environmental management on the Project.				
Expectations	**Procedures**	**How will we meet the expectation?** **(minimum requirements)**	**Responsible** Key Contributor	**Deliverables**
2.3 Environmental sub plans are prepared for Significant Environmental Hazards	Significant Environmental Hazards (SEH) Procedure (M5N-ES-PRC-PWD-0014)	**Identify Significant Environmental Hazards** Significant environmental hazards (SEH) relating to the Project's activities have been identified through the review and analysis of environmental reports, contractual documents, risk assessments, and community and legal compliance requirements relating to the Project (Element 3) and supported by professional experience of the assessor. The Project SEH list in Part A Section 4 is reviewed by the Environmental and Sustainability Manager at a minimum of 6 monthly intervals. The review should be supported by the current environmental risk and opportunities identification and analysis assessment (Element 4) and Project environmental performance.	**Environmental and Sustainability Manager**	Significant Environmental Hazards in Part A Section 4 Environmental sub plans contained in Part C
	Environmental sub-plans - Preparation	**Environmental sub plans** Environmental management sub plans have been prepared to address the following Project environmental impacts: • Construction Soil and Water Quality Sub Plan • Construction Flora and Fauna Sub Plan • Construction Air Quality Sub Plan • Construction Heritage Sub Plan • Construction Traffic and Access Sub Plan • Construction Noise and Vibration Sub Plan The Environmental sub plans (and the Construction Waste and Resource Use Sub Plan of the Sustainability Plan) will take into account contractual, legislative and various approval requirements (for example the PA and EPBC approval conditions). The Environmental sub plans are reviewed for on-going relevance and accuracy by the Environmental and Sustainability Manager. The frequency of review is triggered by incident history (Element 9), changes to the Project, including contract variations (Element 5), and management review requirements (Element 12). Reviews are documented and records retained in the Project document management system.	**Environmental and Sustainability Manager** Support Services Director	Reviews of SEH and environmental Sub Plans

Element 3: Legal and Other Requirements

We will identify and comply with CDS-JV EMS requirements, contractual requirements and all applicable environmental legislation, standards and codes of practice.				
Expectations	**Procedures**	**How will we meet the expectation?** **(minimum requirements)**	**Responsible** Key Contributor	**Deliverables**
3.1 Relevant legal, contractual and other requirements are identified and maintained in a legal and other obligations register	SHE Legal and Other Requirements Procedure (M5N-HS-PRC-PWD-0001) EnviroLaw	**Identifying environmental obligations** The Environmental and Sustainability Manager has reviewed the Contract, construction methodology and program and identified all: • Contractual conditions specific to environmental management • Regulatory approvals required and associated conditions • Specific requirements of local, state and federal laws that are additional to the requirements of Project approvals using CDS-JV's online subscription to EnviroLaw • Targets and objectives in CDS-JV Business Unit or whole of CDS-JV Business Plans. The sources and details of, and means of compliance with the above, are captured within an Obligations Register. Summary details of all environmental licences, permits and authorities required by the Project and details of business critical environmental obligations are included in the Project's Rights and Obligations Summary. As a minimum, the obligations register contains: • Source of the obligation • Extent of the obligation (word-for-word if practical) • Where the management measure for the obligation is addressed in the CDS-JV systems documentation (for example CEMP, sub plans, standalone plans) Environmental obligations and their respective management measures, timing and responsibility are provided in subordinate environmental documentation (for example sub plans, procedures). Documentary evidence must be available to show that all owners of obligations have been informed of their responsibility and are in a position to deliver the obligation.	**Support Services Director** **Environmental and Sustainability Manager** Project Director Commercial Director	Obligations Register Business critical environmental obligations included in Project's Rights and Obligations Summary Project Management Plan (M5N-PM-PLN-PWD-0001)

We will identify and comply with CDS-JV EMS requirements, contractual requirements and all applicable environmental legislation, standards and codes of practice.				
Expectations	**Procedures**	**How will we meet the expectation?** **(minimum requirements)**	**Responsible** Key Contributor	**Deliverables**
3.2 All necessary environmental approvals are obtained prior to commencing relevant works and surrendered on completion	SHE Legal and Other Requirements Procedure (M5N-HS-PRC-PWD-0001)	**Obtaining and surrendering environmental approvals in general** Approvals required to deliver the Project are obtained prior to the commencement of any activities relating to the scope of the approval. The timing to obtain each necessary regulatory approval is determined and included within the Project program linked to relevant activities. Approvals expected to be obtained for the Project include but are not limited to the following: • Instrument of Approval under the EP&A Act (PA) • Environment Protection Licence (EPL) will be required for activities listed in Schedule 1 of the POEO Act • Any works on Crown land • EPBC Approval • CASA - Prior to use of construction cranes or other construction equipment associated with the Project that penetrates the Obstacle Limitation Surface (OLS) of Sydney Kingsford Smith Airport, CDS-JV will consult and obtain necessary approvals from the Civil Aviation Safety Authority (CASA), Sydney Airport Corporation, Air Services Australia and the Secretary of the Australian Department of Infrastructure and Regional Development (DIRD). Aquifer Interference approvals have not yet commenced under the Water Management Act 2000. An Aquifer Interference approval may be required in the future. At least five (5) working days prior to the activity, copies / evidence of approvals will be provided to the Client. Details of all approvals and licences (including applications and decision notices where appropriate) are maintained on the Project filing system. Approvals documentation is maintained in accordance with the requirements of Element 11 of the CEMP. All regulatory approvals will be surrendered according to the requirements of the approval or, where not stated, as soon as practical following the completion of the activity to which the approval relates. The Obligations Register will be updated to include conditions associated with newly received regulatory approvals.	**Environmental and Sustainability Manager** Project Engineers Line Managers	Approvals in program Approval documentation Approval and licence conditions maintained in Project filing system Updated Obligations Register

We will identify and comply with CDS-JV EMS requirements, contractual requirements and all applicable environmental legislation, standards and codes of practice.				
Expectations	**Procedures**	**How will we meet the expectation?** **(minimum requirements)**	**Responsible** Key Contributor	**Deliverables**
3.3 Work is planned and executed to ensure compliance	SHE Legal and Other Requirements Procedure (M5N-HS-PRC-PWD-0001)	**Planning for compliance** The Environmental and Sustainability Manager or their delegate is consulted upon commencement of development of all Construction Area Plans (CAPs) and Work Packs, and throughout their development. All controls necessary to ensure compliance are included in the CAPs and Work Packs and in the environmental sub plans (Part C of this Plan). CAP's and Work Packs should include a diagram that clearly shows the controls to be implemented. The Project program is updated to include new approvals determined to be necessary following the review of work plans. CAPs and Work Packs are reviewed by the Environmental and Sustainability Manager prior to the commencement of works described in their scope.	**Environmental and Sustainability Manager** Quality Manager Supervisors Project Engineers Design Manager	Reviewed CAPs and Work Packs by Environmental and Sustainability Manager Update Project program
	Develop Construction Area Plan Procedure (M5N-ES-PRC-PWD-0018) Develop Work Pack Procedure (M5N-ES-PRC-PWD-0019)	**Implementing controls** Controls required to achieve compliance, as detailed in the CAPs, Work Packs, Sub Plans and Site Environment Plans will be implemented before the relevant works commence. The Obligations Register contains an explanation, or link to an environmental Sub Plan containing an explanation, of how compliance with each listed requirement is to be achieved and how the Project will regularly demonstrate compliance with the requirement (if relevant).	**Line Managers** **Supervisors** **Engineers** Environmental and Sustainability Manager	Engineered (physical) and administrative controls (e.g. procedures, forms, training) in place
3.4 Inspections, observations and monitoring are performed to ensure compliance is maintained	Conduct Task Observations Procedure (M5N-ES-PRC-PWD-0020) Various Environment Management Procedures http://qnpho8.thiess.aus/ExtContent/hseas/Index.htm	**Inspections and observations** Controls are to be inspected regularly to ensure their ongoing suitability and effectiveness. Inspections and observations are planned and conducted according to the requirements of the Workplace Hazard Inspections and Observations Procedures. The outcomes of inspections are captured on the inspection checklists. Corrective actions are raised, tracked and closed out in the Synergy – Action Plan Module or through the inspection records (for actions closed out within 72 hours) for all controls found to be inadequate.	**Supervisors** Environmental and Sustainability Manager Engineers Line Managers	Inspection schedules Inspection checklists Observation records Corrective actions in Synergy – Action Plan Module or inspection records
	MIRRA (Monitoring, Inspections, Reporting, Review, Audit) Schedule	**Environmental monitoring** Environmental monitoring is carried out to establish pre-construction benchmarks, confirm compliance with the conditions of environmental approvals and laws, and to provide early indication of potential adverse impacts to the environment or community.	**Environmental and Sustainability Manager**	Environmental Monitoring Schedule Monitoring records

We will identify and comply with CDS-JV EMS requirements, contractual requirements and all applicable environmental legislation, standards and codes of practice.				
Expectations	**Procedures**	**How will we meet the expectation?** **(minimum requirements)**	**Responsible** Key Contributor	**Deliverables**
		All monitoring is planned and conducted according to the requirements of the procedure *Environmental Monitoring* and as detailed in the environmental sub plans (Part C of this Plan). Environmental monitoring results are interpreted to identify actual and potential non-compliances and events that may result in nuisance, environmental harm, and unacceptable loss of amenity or community complaints. Corrective actions are taken immediately where required or are raised and managed using the Synergy – Action Plan Module.		Calibration records Corrective actions
3.5 All non-compliances are reported as incidents	Investigate SHE Incidents Procedure (M5N-HS-PRC-PWD-0002) Manage and Report SHE Incidents Procedure (M5N-HS-PRC-PWD-0003)	**Reporting non-compliances** All non-compliances are recorded and reported as incidents in the Synergy. This includes events involving an action being taken against the Project by a regulator.	**Support Services Director** **Environmental and Sustainability Manager** Quality Manager	Incident reports
3.6 All energy and greenhouse data are collected and entered into JDE	Manage Energy Procedure (M5N-ES-PRC-PWD-0015)	**Greenhouse and energy** All sources of energy use and production and greenhouse gases, including those relating to subcontractors, will be identified and recorded in the NGER data checklist. All data on energy used and produced and greenhouse gases emitted, including that which relates to subcontractor activity, will be captured and entered into JDE. Data entered into JDE for the Project must be at least 95% accurate. Projects will certify that the NGER procedure is being implemented on a monthly basis via the monthly HSE Statistics Report (a function of Synergy). All relevant records relating to the reporting of NGER data will be retained for seven years. Any NGER data to be reported to the Client will be extracted from JDE using the Business Intelligence Tool. NGER data will be reported to the client at a frequency to be agreed with the client and when CDS-JV report any data to the regulator.	**Environmental and Sustainability Manager** **Commercial Director** Support Services Director	NGER subcontractor register NGER data checklist Completed NGER subcontractor records Monthly HSE Statistical reports

We will identify and comply with CDS-JV EMS requirements, contractual requirements and all applicable environmental legislation, standards and codes of practice.				
Expectations	**Procedures**	**How will we meet the expectation?** **(minimum requirements)**	**Responsible** Key Contributor	**Deliverables**
3.7 Personnel on the site have access to current versions of relevant legislation, standards and codes of practice.	SHE Legal and Other Requirements Procedure (M5N-HS-PRC-PWD-0001) EnviroLaw	**Updates to legislation, standards and codes of practice** Access to all relevant legislation will be available to personnel via EnviroLaw or other online resources (e.g. state or Commonwealth government websites or www.austlii.edu.au). Updates to legislation, standards and codes of practice will be reviewed to determine relevance. Work practices, the environmental sub plans attached to this CEMP, and Obligations Register will be altered where appropriate to ensure compliance and that all affected personnel are informed in a timely manner. Regulatory approvals will be obtained or amended as necessary, work practices altered to ensure compliance and all affected personnel informed in a timely manner.	**Environmental and Sustainability Manager**	Updates distributed
3.8 Disputes with Approval conditions		In the event of a dispute between the CDS-JV / SMC and a public authority, in relation to an applicable requirement in this approval or relevant matters relating to the activity, either party may refer the matter to the Secretary for resolution. The Secretary's determination of any such dispute shall be final and binding on the parties unless further statutory approval is required.	**Support Services Director** Environmental and Sustainability Manager	Project correspondence Determination letter
3.9 Compliance Tracking	Compliance Tracking Program (M5N-ES-PRC-PWD-0030)	The Project shall establish a compliance tracking program to track compliance with the requirements of the Planning Approval. The Project shall undertake compliance tracking in accordance with the Compliance Tracking Program	**Environmental and Sustainability Manager**	Compliance Reports Notifications Closeout Reports

Element 4: Risk and Opportunity Management

We will use a risk management approach during all stages of the Project to identify, assess, control and review environmental risks and harness opportunities.				
Expectations	**Procedures**	**How will we meet the expectation?** **(minimum requirements)**	**Responsible** Key Contributor	**Deliverables**
4.1 Systematic processes are defined and implemented for identifying environmental risks and opportunities at all stages of the Project	Significant Environmental Hazards Procedure (M5N-ES-PRC-PWD-0014) Develop Construction Area Plan Procedure (M5N-ES-PRC-PWD-0018) Develop Work Pack Procedure (M5N-ES-PRC-PWD-0019) Develop Site Environment Plan Procedure (M5N-ES-PRC-PWD-0016)	Environmental risks and opportunities associated with activities, products and services of the Project will be identified and recorded in the Environmental Risk Register, which is retained in ARMs (refer to Appendix B4 Environmental Risk and Opportunities Register). Environmental risks and opportunities are considered during all subsequent Project risk assessments as per the Project Risk Management Plan (M5N-RM-PLN-PWD-0001) This includes: • The Tender Risk Assessment conducted at bid stage for major tangible risks • Opportunities identified in the Initial Sustainability Management Plan • Environmental Impact Statement • Principal Risk Assessment • Safety/Environment-in-Design workshops conducted throughout the Project • Construction Area Plans (CAP) risk assessments • Work Pack risk assessments • Job Safety Environmental Analysis (SWMS) • START/Restart Cards. The Environmental and Sustainability Manager is involved in the Principal Risk Assessment and Safety/Environment-in-Design workshops and has approval authorities for all other risk assessment types (except for START/Restart Cards) to ensure environmental risks and opportunities are adequately raised and addressed.	**Project Director** **Support Services Director** **Environmental and Sustainability Manager** Design Manager Project Engineers Supervisors Line Managers	Environmental Risks and Opportunities Register Significant Environmental Hazards identified in bid updated in Project risk register Construction Area Plan risk assessments Work Pack risk assessments Site Environment Plan (SEP) Appendix B4
4.2 Identified risks and opportunities are analysed and evaluated according to agreed criteria and recorded in a risk register	Significant Environmental Hazards Procedure (M5N-ES-PRC-PWD-0014) Develop Construction Area Plan Procedure (M5N-ES-PRC-PWD-0018) Develop Work Pack Procedure (M5N-ES-	**Analysing environmental risks and opportunities** Each environmental risk will be evaluated and assigned a rating which is determined using the consequence and likelihood criteria in the Risk Management Procedure. The influence of existing controls is considered in determining the risk rating. For each environmental risk: • An owner is assigned by the Project Director • Existing controls are recorded, including the owner of that control • The residual risk will be evaluated. Opportunities will be assessed to determine whether or not they can be implemented on	**Support Services Director** **Environmental and Sustainability Manager** Project Director Project	Register of Environmental risks and opportunities Significant Environmental Hazards identified in bid updated in Project risk register Construction Area Plan risk assessments

We will use a risk management approach during all stages of the Project to identify, assess, control and review environmental risks and harness opportunities.				
Expectations	**Procedures**	**How will we meet the expectation?** **(minimum requirements)**	**Responsible** Key Contributor	**Deliverables**
	PRC-PWD-0019) Develop Site Environment Plan Procedure (M5N-ES-PRC-PWD-0016)	the Project and be based on a cost-benefit business case for the opportunity. Advice is sought from the Environmental and Sustainability Manager as necessary by the Project team to ensure CAP, Work Pack, SWMS, risk assessments & EWMS are as informed and accurate as possible.	Engineers	Work Pack risk assessments Site Environment Plan (SEP) Appendix B4
4.3 Environmental controls appropriate to the level of risk are identified, documented and implemented	Significant Environmental Hazards Procedure (M5N-ES-PRC-PWD-0014) Develop Construction Area Plan Procedure (M5N-ES-PRC-PWD-0018) Develop Work Pack Procedure (M5N-ES-PRC-PWD-0019) Develop Site Environment Plan Procedure (M5N-ES-PRC-PWD-0016)	**Identifying adequate controls** If the risk rating returns a result of 'medium' or above, then additional controls sufficient to reduce the risk rating to 'low' or an alternative acceptable level using cost effective designs and engineering and/or administrative controls are to be utilised. Residual risks with a high or extreme risk rating will be considered 'significant' and must be controlled using appropriate systems of work, including environmental sub plans and Project work procedure, along with available "hard controls". Approval to proceed as per the Risk Management Plan (M5N-RM-PLN-PWD-0001) is required. Accountability for the implementation of each control is assigned and a due date set for its implementation. Controls are selected in consultation with the Environmental and Sustainability Manager to achieve the following, in order of preference: • Eliminate the risk by not performing the relevant activity • Substitute by performing the relevant activity in a way that presents a lower risk • Implement physical (engineered) controls (e.g. sediment basins, check dams) • Implement administrative controls (e.g. procedures, training, inspections). (Note: In ARMs, the term used for an existing control is 'control'; the term used for additional controls to be implemented is 'treatment').	**Environmental and Sustainability Manager** **Line Managers** Project Engineers	
		Implementing controls Controls are implemented by the person accountable by the due date. No activity is commenced until all relevant controls are implemented.	**Line Managers**	Controls in place (engineered or administrative)

We will use a risk management approach during all stages of the Project to identify, assess, control and review environmental risks and harness opportunities.				
Expectations	**Procedures**	**How will we meet the expectation?** **(minimum requirements)**	**Responsible** Key Contributor	**Deliverables**
4.4 Feasible opportunities are implemented		**Implementing opportunities** Opportunities identified and for which a business case has been developed are submitted to the appropriate member of the Project leadership team for approval. Once approved, accountability for implementation of the opportunity is assigned and the opportunity is implemented. Environmental and cost benefits are recorded and reported in monthly reporting.	**Support Services Director** **Line Manager**	Monthly reports Case studies
4.5 Identified environmental risks and controls are communicated to all relevant personnel	Construction Management Plan Conduct SHE Leadership Visits Procedure (M5N-HS-PRC-PWD-0004) Communicate, Cooperation and Consultation Knowledge	**Communications in line with Construction Planning** The environmental risks, controls and accountabilities identified are communicated to all relevant personnel. This is achieved through the preparation and communication of the construction methodology, CAPs, Work Packs, the conduct of Safety/Environment-in-Design workshops and the preparation of SWMS.	**Line Manager** **Project Engineers** Environmental and Sustainability Manager	Toolbox talk content and attendee records Pre-start meeting content Records of communications and meetings
		HSE Communications Environmental risks, controls and accountabilities are also communicated through delivery of HSE communications, including HSE Committee meetings, toolbox talks and pre-start meetings.	**Environmental and Sustainability Manager** Project Engineers Supervisors Safety Director	Site induction content Toolbox talk content and attendee records Pre-start meeting content Records of communications and meetings
	Project Training Plan	**Communication through training** Nominated administrative controls, including procedures and training, will be communicated through the delivery of training in their requirements. The planning and delivery of this training is provided according to the requirements of the Human Resources Management Plan.	**People and Capability Manager** Environmental and Sustainability Manager	Training schedule Training matrix Training records

We will use a risk management approach during all stages of the Project to identify, assess, control and review environmental risks and harness opportunities.				
Expectations	**Procedures**	**How will we meet the expectation?** **(minimum requirements)**	**Responsible** Key Contributor	**Deliverables**
4.6 Regular inspections and monitoring are conducted to check effectiveness of controls	MIRRA (Monitoring, Inspections, Reporting, Review, Audit) Schedule	**Inspections, observations and monitoring** The processes for inspections, observations and monitoring are described in Expectation 3.4 of the CEMP.	**Environmental and Sustainability Manager** Support Services Director Project Engineers Supervisors	[See Expectation 3.4]
4.7 Environmental risks and controls are regularly reviewed	Significant Environmental Hazards Procedure (M5N-ES-PRC-PWD-0014) Develop Construction Area Plan Procedure (M5N-ES-PRC-PWD-0018) Develop Work Pack Procedure (M5N-ES-PRC-PWD-0019) Develop Site Environment Plan Procedure (M5N-ES-PRC-PWD-0016)	**Risk review** The relevance and adequacy of environmental risks and controls identified in this CEMP, the Significant Environmental Hazard Assessment, CAP and Work Pack risk assessments are reviewed and updated according to the Project Risk Management Plan (M5N-RM-PLN-PWD-0001)	**Support Services Director** Environmental and Sustainability Manager Design Manager Project Engineers	Environmental Risk Register Updated risk registers in ARMs, CAPs and Work Packs

Element 5: Change Management

We will identify and manage environmental consequences arising from permanent and temporary changes to the Projects planned operations.				
Expectations	**Procedures**	**How will we meet the expectation?** (minimum requirements)	**Responsible** Key Contributor	**Deliverables**
5.1 Changes to planned operations that have potential environmental /approval consequences are identified	Significant Environmental Hazards Procedure (M5N-ES-PRC-PWD-0014) Develop Construction Area Plan Procedure (M5N-ES-PRC-PWD-0018) Develop Work Pack Procedure (M5N-ES-PRC-PWD-0019) Develop Site Environment Plan Procedure (M5N-ES-PRC-PWD-0016)	**Identifying change - Internal** Personnel promptly report any 'medium' or 'major' changes that could affect the environment and community. A 'medium' or 'major' change could result from a change to design, plant (fixed and mobile), systems, personnel and work methods such that the absence of a considered review could compromise the Project's ability to comply with its obligations and/or result in an inadequate range of controls which could lead to an incident or result in community nuisance. A 'medium' change is one which includes permanent changes to Work Pack methodology or work conditions. A 'major' change is one which is site-wide or requires a revision of CAP's. Changes to activities where a SWMS or START/Restart card was utilised to plan and manage risk will be identified and amended as described in respective procedures by the designated risk owners / task managers. Personnel have received appropriate training to identify changes and apply change management processes. This includes all supervisory staff being informed of the need to have changes approved prior to commencing relevant works. **Identify Change - External** Any changes to the scope of the infrastructure activity shall be subject to a consistency review. Should the review identify activity scope and environmental impacts inconsistent with the assessed infrastructure activity, a modification to the infrastructure activity approval would be required. Documents called upon as part of the Projects Planning Approval that will require amendment as a result of the change will require consultation and/or approval from relevant government agencies. The consultation and approval requirements are provided in section 3.2 of this CEMP. Changes that result in minor amendments to the CEMP will be reviewed by the ER and managed in accordance with element 11 (section 11.3). In instances where new scopes of work will be undertaken and where these new scopes	**Support Services Director** **Environmental and Sustainability Manager** Design Manager Project Engineers Supervisors Line Managers	Training matrix Training records Change Requests Consistency Review

		are not addressed by this CEMP, the CEMP will be updated and provided to the Client (at least 10 working days prior to commencement of the work) and to relevant consultation and approval authorities. Minor changes will be reviewed and approved by the ER.		
5.2 Risks associated with identified changes are assessed and controlled before changes are implemented	Develop Work Pack Procedure (M5N-ES-PRC-PWD-0019) Develop Site Environment Plan Procedure (M5N-ES-PRC-PWD-0016)	**Risks associated with change** All proposed changes are documented, including the assessment of risks relating to the change. Key personnel affected by the change are involved in the risk assessment. All changes are requested or sponsored by a supervisor or manager, who then becomes the change owner. Input from environmental personnel is sought as necessary. The approach to risk assessment and the implementation of controls will follow the requirements of Element 4 of the CEMP.	**Support Services Director** **Environmental and Sustainability Manager** Supervisors Line Managers	Change Requests Revised risk assessments
5.3 All changes with environmental consequences are authorised before they are implemented	Manage Work Permits Procedure (M5N-HS-PRC-PWD-0005) Develop Site Environmental Pan Procedure (M5N-ES-PRC-PWD-0016)	**Approvals of change** All change requests are approved by the supervisor or manager of the change owner, or as otherwise required by the Project delegations, before any relevant work commences and a record is maintained. This must include any approvals associated with revised CAPs and Work Packs by the Environmental and Sustainability Manager.	**Line Managers** Design Managers Supervisors Environmental and Sustainability Manager	Change Requests
5.4 Controls associated with change are communicated to all affected personnel	Conduct Pre Start Briefing Procedure (M5N-HS-PRC-PWD-0006)	**Communication of change** Affected personnel will be consulted and understand the effects of change before the relevant works commence. This is achieved through toolbox talks, daily pre-start meeting, HSE committees or forums arranged to specifically address changes.	**Line Managers** **Supervisors** Design Manager	Toolbox talk material Pre-start meetings Attendance records Meeting minutes
5.5 Project changes and effects on Approvals		Any changes to the scope of the infrastructure activity shall be subject to a consistency review. This includes changes to both permanent and design and changes to construction. Should the review identify activity scope and environmental impacts inconsistent with the assessed infrastructure activity, a modification to the infrastructure approval would be required.	**Environment and Sustainability Manager** **Design Manager** Line Managers	Change Requests Consistency Reviews

Element 6: Communication and Consultation

We will effectively and openly communicate and consult with external and internal stakeholders to create an environment of trust, openness and involvement.				
Expectations	**Procedures**	**How will we meet the expectation?** **(minimum requirements)**	**Responsible** Key Contributor	**Deliverables**
6.1 External environmental stakeholders are identified	Community Communication Strategy (M5N-CS-PLN-PWD-0008)	**Identifying external stakeholders** A comprehensive stakeholder analysis will be performed to identify external stakeholders and their interests in the environmental management of the Project. This will include community members and others who could be affected by the Project works, as well as government and environmental lobby groups. The Environmental and Sustainability Manager will be involved in the analysis process.	**Community Manager** Support Services Director Environmental and Sustainability Manager	Stakeholder register or database Stakeholder Analysis
6.2 Relationships with external stakeholders are effectively managed	Community Communication Strategy M5N-CS-PLN-PWD-0008 Risk Management Plan (M5N-RM-PLN-PWD-0001)	**Managing relationships** Activities performed to effectively manage relationships with external stakeholders include: • Identifying environmental risks that relate to stakeholder interests by considering the impacts to stakeholders (documented in Risk Register and/or Stakeholder Analysis) • Determining suitable controls and activities to mitigate risks (general controls and activities documented in Risk Register and/or Stakeholder Analysis, details in environmental management plans, CAPs, Work Packs and SWMS) • Performing inspections, audits, stakeholder engagement and monitoring activities to assess the effectiveness of controls • Actively engaging stakeholders through open communication and involvement. The Community Communication Strategy includes the process for notifying external stakeholders of upcoming works, including works outside of normal working hours.	**Environmental and Sustainability Manager** **Community Manager** Support Services Director	Risk Register and/or Stakeholder Analysis Risk assessments in CAPs, Work Packs, SWMS Environmental sub plans and Procedures Audit reports Monitoring results Communications material Forums and opportunities for stakeholder engagement
6.3 Internal consultative forums are established with regular meetings scheduled,	Conduct Pre Start Briefing Procedure (M5N-HS-PRC-PWD-0006) Toolbox talk record (M5N-HS-FRM-PWD-	**Consultative forums** A schedule of communication forums will be developed which includes: • Managers' meetings that are to address HSE matters at least monthly • Environmental Toolbox Talks at least monthly	**Support Services Director** Environmental and Sustainability Manager Safety Director	Minutes of meetings Toolbox Talks Pre-Start meetings Attendance records

We will effectively and openly communicate and consult with external and internal stakeholders to create an environment of trust, openness and involvement.				
Expectations	**Procedures**	**How will we meet the expectation?** **(minimum requirements)**	**Responsible** Key Contributor	**Deliverables**
conducted, documented and communicated	0001) Pre-start meeting record (M5N-HS-FRM-PWD-0001) Project WHS Management Plan (M5N-HS-PLN-PWD-0001)	• Pre-start meetings prior to commencing a shift • HSE Committees. The Project Director will establish appropriate environmental interfaces with the Project Company and regulatory bodies. Records will be kept of all HSE communication activities (e.g. attendance records). The effectiveness of the meeting outcomes will be reviewed six-monthly.		
	Synergy - Action Plans Module	**Actions from consultative forums** Actions arising from consultative forums are assigned and communicated to a responsible person and confirmed as being completed. The Project will identify, track and complete environmental related actions using Synergy – Action Plans Module.	**Community Manager** Environmental and Sustainability Manager	Synergy – Action Plans Module
	Signage and markings - Workplace hazards	**HSE signs and notice boards** Dedicated HSE notice boards will be prominently located and maintained with current information.	**Safety Director** Environmental and Sustainability Manager	Signs and notice boards installed with current environmental content
6.4 Environmental complaints and enquiries are recorded and responded to appropriately	Community Communication Strategy M5N-CS-PLN-PWD-0008 Event classification matrix – Synergy Construction Environmental Management Plan (M5N-ES-PLN-PWD-0001)	**Responding to complaints and enquiries** A Construction Complaints Management System, consistent with AS 4269: Complaints Handling has been developed for the Project, which is included in the Community Communication Strategy. Information on all complaints received, including the means by which they were addressed, whether resolution was reached and whether mediation was required will be included in a complaints register. The information contained within the register will be made available to the DP&E on request. All environmental related complaints will be classified according to the Incident Classification Matrix and recorded in Synergy. Details to be captured are as per the Community Communication Strategy. Complaints are treated as an incident and managed according to Element 9 of the CEMP. Corrective actions are agreed and implemented, with accountabilities and time frames assigned. The complainant or enquirer is notified of the intended Project response once approved by the Project Director or delegate.	**Community Manager** **Environmental and Sustainability Manager** Support Services Director	Incident records Records of communications with Business Unit and Corporate

We will effectively and openly communicate and consult with external and internal stakeholders to create an environment of trust, openness and involvement.				
Expectations	**Procedures**	**How will we meet the expectation?** **(minimum requirements)**	**Responsible** Key Contributor	**Deliverables**
	MIRRA (Monitoring, Inspections, Reporting, Review, Audit) Schedule Construction Environmental Management Plan (M5N-ES-PLN-PWD-0001)	**Changes to environmental monitoring** Environmental monitoring programs will be reviewed to address matters raised through valid complaints and consultations with stakeholders. Amendments to the monitoring program will be adequate to allow early identification of conditions that are likely to result in further complaints and/or exceedances. Data will be analysed to identify actual and potential impacts to the community, and corrective actions implemented.	**Environmental and Sustainability Manager** Community Manager	Monitoring schedule Monitoring records Corrective actions in Synergy – Action Plan Module
	Community Communication Strategy M5N-CS-PLN-PWD-0008	**Client and internal notifications** The Business Unit Environmental and Sustainability Manager and Corporate Communications Manager are notified of complaints that have or are likely to generate media interest. CDS-JV will notify the Project Company if a complaint is made by anyone in respect of any aspect of the construction activities.	**Project Director** Community Manager	Record of communication
6.5 The effectiveness of internal and external stakeholder engagement is evaluated and improved	Community Communication Strategy M5N-CS-PLN-PWD-0008	**Evaluation of internal and external communications** The effectiveness of internal communication and consultation activities is formally reviewed at least every six months. The effectiveness of external communication and consultation activities is formally reviewed at least annually. The Environmental and Sustainability Manager participates in both of these reviews, which are led by the Project Director and include the Community and Stakeholder Liaison Manager and Safety Manager. The Environmental and Sustainability Manager will also regularly attend and review the effectiveness of forums and recommend changes to the scheduling or style of forum.	**Project Director** **Community Manager** Environmental and Sustainability Manager Safety Director	Meeting minutes

Element 7: Training and Competency

We will ensure that Project personnel can completely perform their duties and meeting environmental obligations.				
Expectations	**Procedures**	**How will we meet the expectation?** **(minimum requirements)**	**Responsible** Key Contributor	**Deliverables**
7.1 All personnel have completed an induction containing relevant environmental information before they are authorised to work on the Project	Develop and Deliver Project Inductions Procedure (M5N-PC-PRC-PWD-0003) Induction Guideline Knowledge Training Plan (M5N-PC-PLN-PWD-0002)	**Inductions** All personnel, subcontractors and visitors will undergo an induction before commencing work on-site. The induction addresses general and Project-specific environmental issues, including: • CDS-JV's environmental policy • Purpose and objectives of the CEMP • How the CEMP will be implemented on-site • Requirements of due diligence and duty of care • Conditions of environmental licences, permits and approvals • High-risk environmental activities on the Project and their controls • What to do when working in or near environmentally sensitive areas • Potential environmental emergencies on Site • What to do in the event of an environmental incident or emergency. • Reporting and notification requirements for pollution and other environmental incidents • An assessment will be conducted upon completion of the induction. Induction materials are reviewed at least annually and amended to reflect changes to Project environmental risks, the status of community relations and the occurrence of incidents.	**Environmental and Sustainability Manager** People and Capability Manager Safety Director	Induction materials Training attendance records Completed induction assessments Earlier revisions of Induction materials
7.2 A training plan is developed and documented	Identify and Manage Project Training Procedure (M5N-PC-PRC-PWD-0004) Safety and Health Management Plan Project Management	**Identifying training needs** Environmental training needs required to deliver this CEMP are identified and documented within the Project's training matrix. In populating the training matrix, the environmental training requirements for each role are addressed, including competency, needs and capability. The Environmental and Sustainability Manager will be consulted in developing the	**Environmental and Sustainability Manager** **People and Capability Manager**	Training matrix Performance and Development management plans Subcontractor agreements

We will ensure that Project personnel can completely perform their duties and meeting environmental obligations.				
Expectations	**Procedures**	**How will we meet the expectation?** **(minimum requirements)**	**Responsible** Key Contributor	**Deliverables**
	Plan (M5N-PM-PLN-PWD-0001) Training Plan (M5N-PC-PLN-PWD-0002)	training matrix. The performance and development management process provides an opportunity to identify and plan the delivery of training needs not provided in the training matrix, or that are necessary to aid in the development of the individual. Subcontractor training and competency responsibilities will be included in subcontractor agreements.		Subcontractor Start-Up Meeting minutes
	Identify and Manage Project Training Procedure (M5N-PC-PRC-PWD-0004) Training Plan (M5N-PC-PLN-PWD-0002)	**Scheduling training needs** A Project training schedule will be developed to plan the delivery of training needs identified in the training matrix. Refresher training intervals will also be stated where applicable.	**People and Capability Manager** Environmental and Sustainability Manager	Training schedule Training records
7.3 Personnel are trained and assessed according to the training plan	Identify and Manage Project Training Procedure (M5N-PC-PRC-PWD-0004) Develop and Assess Training Procedure (M5N-PC-PRC-PWD-0005) Training Plan (M5N-PC-PLN-PWD-0002)	**Provide training resources** All resources to deliver the training schedule, including personnel, equipment, funding and materials, will be allowed for in the Project budget. Environmental training requirements for the Project will be identified and included into the Training Plan	**Support Services Director** Environmental and Sustainability Manager People and Capability Manager	Project budget
	Training Plan (M5N-PC-PLN-PWD-0002)	**Delivery of training** All training identified in the training matrix will be delivered according to the training schedule. Training and development needs identified through the performance and development process will be achieved as per time frames nominated in individual plans. Personnel delivering environmental training must be deemed competent by the Environmental and Sustainability Manager or Business Unit Environmental and Sustainability Manager.	**Environmental and Sustainability Manager** People and Capability Manager	Training records

We will ensure that Project personnel can completely perform their duties and meeting environmental obligations.				
Expectations	**Procedures**	**How will we meet the expectation?** **(minimum requirements)**	**Responsible** Key Contributor	**Deliverables**
	Develop and Assess Training Procedure (M5N-PC-PRC-PWD-0005) Training Plan (M5N-PC-PLN-PWD-0002)	**Training evaluation and review** Training assessments and evaluation forms will be used to assess the effectiveness of training. Training evaluation and feedback will be reviewed and used to improve the quality of environmental training delivered on the Project. The training matrix and schedule will be completely reviewed at least annually or prior to the commencement of major new tasks.	**People and Capability Manager** Environmental and Sustainability Manager	Training evaluation forms Training matrix
7.4 Training records are maintained and accessible to relevant personnel	Project Management Plan (M5N-PM-PLN-PWD-0001) Training Plan (M5N-PC-PLN-PWD-0002)	**Training records** Records of all training activities, including inductions, will be maintained. Records will include the name and role of the attendee, the name of the course and, where applicable, reference to the document controlled version of the material presented, and a copy of the assessment completed.	**People and Capability Manager** Environmental and Sustainability Manager	Training records
7.5 Tool Box training	Training Plan (M5N-PC-PLN-PWD-0002)	Toolbox talks will be one method of raising awareness and educating personnel on issues related to all aspects of construction including environmental issues. The toolbox talks are used to ensure environmental awareness continues throughout construction. Toolbox talks will be tailored to specific environmental issues relevant to upcoming works. Relevant environmental issues may include (but are not limited to): • Noise management, hours of work, including management strategies to be implemented for out of hours works; • Noise minimisation measures; • Erosion and sediment control; • Emergency and spill response; • Construction traffic and parking; • Aboriginal and Non-Aboriginal heritage • Weed management; • Dust control; • Flora and fauna management and threatened species protection; • Contaminated land management	**Environmental and Sustainability Manager** Supervisors	Training Records

We will ensure that Project personnel can completely perform their duties and meeting environmental obligations.				
Expectations	**Procedures**	**How will we meet the expectation?** **(minimum requirements)**	**Responsible** Key Contributor	**Deliverables**
		• Sustainability measures, including waste reduction, reuse and recycling. Targeted environmental awareness training will be provided to individuals or groups of workers with a specific authority or responsibility for environmental management or those undertaking an activity with a high risk of environmental impact. Topics covered may include those detailed above, or others deemed necessary in the lead up to or during construction. These will include: • Contaminated land management – Alexandria landfill • Acid sulfate soils management • Specific heritage management • Green and Gold Bell Frog management To promote environmental awareness amongst the construction team, environmental alerts or HSE communications will be issued as required. Alerts will be communicated through daily pre-start meetings, toolbox talks or activity-specific pre-start meetings. In addition, SEPs will be made available or displayed, as appropriate, to promote awareness of environmental constraints.		
7.6 Daily Pre-starts	Training Plan (M5N-PC-PLN-PWD-0002)	The pre-start meeting is a tool for informing the workforce of the day's activities, safe work practices, environmental protection practices, work area restrictions, activities that may affect the works, coordination issues with other trades, hazards or other information that may be relevant to the day's work. Supervisory staff is responsible for preparing and delivering a pre-start briefing for each work crew at the beginning of each shift or commencement of a new work activity. Daily pre-start meetings are generally succinct in nature and take approximately 10-15 minutes. The environmental component of pre-starts will be determined by relevant supervisory staff and environment personnel and will include any environmental issues that could potentially be impacted by, or impact on, the day's activities	**Supervisors**	Training Records Pre-start checklists

Element 8: Subcontractor Relationships

We will build effective relationships with our subcontractors to ensure they positively contribute to environmental management and performance on the Project.

Expectations	Procedures	How will we meet the expectation? (minimum requirements)	Responsible Key Contributor	Deliverables
8.1 Selection processes ensure that subcontractors meet CDS-JV's minimum environmental requirements	Pre Award Questionnaire Tool	**Subcontractor selection and engagement** The selection of subcontractors engaged on the Project includes assessment using the procedure Pre-Award Evaluation. The Environmental and Sustainability Manager should be consulted to ensure accurate completion of this evaluation. The Environmental and Sustainability Manager will be consulted on environmental requirements of subcontracts and the adequacy of proposed conditions. Subcontractors will be made aware of CDS-JV's environmental requirements during the tender process and Start-Up meetings.	**Commercial Director** Project Engineers Environmental and Sustainability Manager	Pre-Award Evaluation Subcontractor Agreements
8.2 Planning requirements of all subcontractor work scopes are completed and communicated prior to commencing work	Administer Sub Contractors and Suppliers Procedure (M5N-PC-PCR-PWD-0001)	**Identify, complete and communicate planning requirements and documentation** The scope of work to be performed by each subcontractor is reviewed to determine whether it includes works for which Project planning and environmental risk assessments have been performed. If so, the subcontractor is formally informed of all relevant risks and existing Project documents, systems and procedures to be followed prior to commencing works (having been informed of these during the tendering process). These may include the contents of the construction methodology, CAPs and Work Packs and environmental sub plans in this CEMP. If the scope of works includes activities not already addressed in Project planning and risk assessment, then an appropriate risk assessment is performed and either existing documentation is revised, or new documentation produced (e.g. SWMS). In either case, the subcontractor is formally informed of all requirements prior to commencing works.	**Line Manager** Project Engineers Environmental and Sustainability Manager	Construction Area Plans (CAPs) Work Packs SWMS Records of subcontractor notification
	Construction Environmental Management Plan (M5N-ES-PLN-PWD-0001) Manage Energy procedure (M5N-ES-PRC-PWD-0015)	**Compliance requirements** For high risk environmental activities (refer to Element 3 of this CEMP), the Environmental and Sustainability Manager will review the subcontractor's scope of works and SWMS with the supervising Engineer and: • Identify any new issues relevant to the subcontractor's scope of works • Identify any additional compliance requirement not captured • Identify necessary approvals not already in place and obtain those approvals prior	**Support Services Director** **Environmental and Sustainability Manager** Project Engineers Commercial	Records of subcontractor notification

We will build effective relationships with our subcontractors to ensure they positively contribute to environmental management and performance on the Project.				
Expectations	**Procedures**	**How will we meet the expectation?** **(minimum requirements)**	**Responsible** Key Contributor	**Deliverables**
		to any works commencing • Update the HSE Reporting System licence database, relevant environmental sub plans and Obligations Register of new approvals and their conditions. The Environmental and Sustainability Manager will review the CAP, Work Packs, and SWMS for high risk environmental issues as described in Element 3. The subcontractor will be informed of all relevant items and the controls, procedures and documents to be followed and implemented in order to achieve compliance during the tendering process. This will be reinforced during the Start-Up meeting. The subcontractor will be informed of the requirement to provide all relevant data relating to their works as per the National Greenhouse and Energy Reporting Act 2007 (Commonwealth).	Director	
8.3 Subcontractor documentation is submitted and reviewed to meet Project requirements	Administer Sub Contractors and Suppliers Procedure (M5N-PC-PCR-PWD-0001)	**Documentation preparation and review** The subcontractor will provide CDS-JV with all required environmental documentation prior to commencing work on the Project as described in the executed agreement, including any requirement to produce a Construction Environmental Sub Plan. Any further requirements will be agreed by the Commercial Director and the Environmental and Sustainability Manager.	**Project Engineer** Environmental and Sustainability Manager	Subcontractor environmental documentation
8.4 Changes to the scope of work are managed as a Project change	Construction Environmental Management Plan (M5N-ES-PLN-PWD-0001)	**Manage changes/variations** Changes and variations to subcontractor scopes of work will be assessed as a change according to the requirements of Element 5 of the CEMP. Documentation will be amended accordingly.	**Line Manager** Project Engineers Commercial Director	Change Requests
8.5 Subcontractors actively participate in environmental management on the Project	Conduct task Observation Procedure Conduct Pre Start Briefing Procedure	**Subcontractor environmental participation** Subcontractors will participate in HSE communication forums and monitoring activities, as a minimum, including: • Project induction • Scheduled HSE management meetings, toolbox talks, pre-start meetings, HSE committees (as required) • HSE observations, inspections and audits	**Project Engineers** Commercial Director Environmental and Sustainability Manager	Attendance records Monitoring records

We will build effective relationships with our subcontractors to ensure they positively contribute to environmental management and performance on the Project.				
Expectations	**Procedures**	**How will we meet the expectation?** **(minimum requirements)**	**Responsible** Key Contributor	**Deliverables**
		• Incident investigations (as required) • Development or review of safe work systems and SWMS (as required).		
	Construction Environmental Management Plan (M5N-ES-PLN-PWD-0001)	**Subcontractor training** Subcontractors will undergo all necessary environmental training including any required by the Project. The required training will be determined by reviewing the training matrix relative to the scope of work and roles being filled or supplied by the subcontractor. The delivery and management of training will be as per Element 7 of the CEMP.	Project Engineers Environmental and Sustainability Manager	Subcontractor training records
8.6 Subcontractors are reviewed to assess their performance and compliance with our minimum environmental requirements.	Construction Environmental Management Plan (M5N-ES-PLN-PWD-0001) Project Management Plan (M5N-PM-PLN-PWD-0001) Workplace hazard inspections	**Subcontractor audits and reviews** If Subcontractors are using or are permitted to use their own environmental management system the subcontractor must demonstrate their EMS is certified to ISO14001 and implemented (preferably demonstrated by an independent audit). In such instances the Environmental and Sustainability Manager will audit their EMS within two months of start-up and at least once each six months for subcontractors carrying out high-risk activities thereafter in accordance with audit and review procedures described in Element 12 of this CEMP. Subcontractors will be regularly inspected and observed for environmental performance as per Element 3 of this CEMP	**Environmental and Sustainability Manager** Project Engineers Supervisors	Audit reports Inspection and monitoring records

Element 9: Incident Management

We will effectively respond to, report and investigate all incidents. We will take appropriate corrective actions and share associated lessons.				
Expectations	**Procedures**	**How will we meet the expectation?** **(minimum requirements)**	**Responsible** Key Contributor	**Deliverables**
9.1 All incidents are followed by appropriate response and notification	Investigate SHE Incidents Procedure (M5N-HS-PRC-PWD-0002) Event classification matrix – Synergy Manage a Crisis Procedure (M5N-CS-PRC-PWD-0001) Construction Environmental Management Plan (M5N-ES-PLN-PWD-0001)	**Incident response** The immediate response to all incidents is to make the area safe and undertake measures to prevent further environmental harm. An assessment will be made in consultation with the Environment and Sustainability Manager to ensure that responses do not result in further harm. In the event of an environmental incident, Roads and Maritime's Environmental Incident and Classification and Reporting Procedure (Appendix B6) shall be implemented. The Roads and Maritime procedure provides references to: • Types of 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 Roads and Maritime procedure covers the management of events such as, but not limited to: • Spills of fuels, oils, chemicals and other hazardous materials. • Unauthorised discharge from sediment basins or other containment devices. • 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. • Unauthorised damage or destruction to any State or locally significant relic or Heritage item. • 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; CoA; or any agency permit condition.	**Project Director** **Support Services Director** **Supervisors** Environmental and Sustainability Manager Community Relations Manager Project Engineers	Records of incident notifications

We will effectively respond to, report and investigate all incidents. We will take appropriate corrective actions and share associated lessons.				
Expectations	**Procedures**	**How will we meet the expectation?** **(minimum requirements)**	**Responsible** Key Contributor	**Deliverables**
		• Works undertaken without appropriate approval or assessment under the EP&A Act 1979. • Works undertaken that are not in accordance with a Project assessment. • Unauthorised dumping of waste. **Initial incident notification** The Project Director, Environment and Sustainability Manager and Community Relations Manager are to be notified immediately of the following incidents: • All Class 1 and Class 2 environmental incidents • High Potential Incidents (HPIs). The Environment and Sustainability Manager is also to be notified of any actual Class 3 environmental incident, procedural or legal breach. For Class 1 incidents and HPIs, the Project Director will immediately notify the Business Unit General Manager, the Business Unit Environment and Sustainability Manager and the Corporate Communications Manager. The Project Director will also notify the Business Unit General Manager of the need to activate the Project's Emergency Response Procedure and the Group Crisis Management Plan if necessary. **Client notification** CDS-JV will immediately notify the Project Company and RMS in writing as soon as it: 1. Becomes aware of any breach or potential breach or non-compliance or potential non-compliance with the conditions or requirements of any Law, Approval or Environmental Document in the performance of CDS-JV's Activities. 2. Becomes aware of any information, fact or circumstance where, if the Project Company or RMS were to be aware of such information, fact or circumstance, the Project Company or RMS would be required to notify any Authority of that information, fact or circumstance pursuant to any Law relating to the Environment, or 3. Notifies any Authority of any matter pursuant to any Law relating to the environment, in which case CDS-JV will provide to the Project Company and RMS a copy of the notification and of any subsequent correspondence with the Authority in relation to the subject of the notification.		

We will effectively respond to, report and investigate all incidents. We will take appropriate corrective actions and share associated lessons.				
Expectations	**Procedures**	**How will we meet the expectation?** **(minimum requirements)**	**Responsible** Key Contributor	**Deliverables**
		External Notification The Environment and Sustainability Manager will notify EPA and the Secretary DPE, as follows: • As required by the POEO Act and project EPL in relation to any pollution incident and provide the Secretary with a record of any such notification • Notify the EPA / Secretary within 24 hours of any incident with actual or potential significant off-site impacts on people or the biophysical environment, with full written details provided within 7 days • Where Incidents occur on weekends, public holidays and site shutdown, the Secretary shall be notified on the next business day • Meet the requirements of the Secretary or relevant public authority (as determined by the Secretary) to address the cause or impact of any incident, as it relates to Planning approval, within such period as the Secretary may require **Preserve the incident scene** Scenes of environmental Class 1 and 2 incidents and HPI's are to be preserved until the incident investigation team has collected relevant data and evidence (see below).		
9.2 All incidents are entered into and closed out in Synergy	Manage and Report SHE Incidents Procedure (M5N-HS-PRC-PWD-0003) Event classification matrix – Synergy	**Incident classification and reporting** Environmental incidents will be classified using the Incident Classification Matrix by the Environmental and Sustainability Manager in consultation with the Project Director. All environmental incidents, including community complaints, will be reported using Synergy within three calendar days. Root causes will be identified and recorded in Synergy for all Class 1, 2 incidents and HPIs (and optionally for Class 3 incidents). All statutory notices received from regulators, including penalty notices and fines, will be entered as Environmental Legal Issue incidents upon receipt.	**Environmental and Sustainability Manager** Support Services Director Supervisors	Incident records Root cause coding

We will effectively respond to, report and investigate all incidents. We will take appropriate corrective actions and share associated lessons.				
Expectations	**Procedures**	**How will we meet the expectation?** **(minimum requirements)**	**Responsible** Key Contributor	**Deliverables**
9.3 Incident investigations are conducted appropriate to the type of incident	Manage and Report SHE Incidents Procedure (M5N-HS-PRC-PWD-0003)	**Project incident investigations** All incidents will be investigated according to the requirements of Managing HSE Incidents - Synergy. The level of investigation needed will depend on the incident classification. Corrective actions, including those required to help prevent future incident occurrences, are a key outcome of incident investigations. Incident investigation reports are to be uploaded to Synergy. **Statutory authority investigations** Before any staff member is questioned by officers of a statutory authority they will endeavour to consult the Project Director to determine whether Legal Counsel is needed. Regulatory inspectors must be given appropriate assistance during their own investigations.	**Support Services Director** Environmental and Sustainability Manager Supervisors Project Engineers	Incident investigation reports
9.4 All personnel conducting incident investigations are trained to competently perform the task	Manage and Report SHE Incidents Procedure (M5N-HS-PRC-PWD-0003)	**Incident investigation teams competent and trained** The selection of the investigation team will be up to the Project Director and will depend upon the severity of the incident, and the availability of experienced personnel. However, the investigation team does need to have a mix of both Operational and HSE Staff. The following should be considered when selecting an investigation team: • Statutory requirements • CDS-JV Corporate requirements • Technical specialists with an understanding of the work process • Administrative Support • Mix of skills and experience • Potential conflict of interest for any proposed member.	**Support Services Director** Project Director	

We will effectively respond to, report and investigate all incidents. We will take appropriate corrective actions and share associated lessons.				
Expectations	**Procedures**	**How will we meet the expectation?** **(minimum requirements)**	**Responsible** Key Contributor	**Deliverables**
9.5 Corrective and preventative actions are taken after incidents and lessons are shared with other Projects	Manage and Report SHE Incidents Procedure (M5N-HS-PRC-PWD-0003)	**Corrective & preventative actions** Following an incident, corrective and preventative actions will be identified, assigned to the appropriate person/s and closed out according to set time frames. Time frames are set to ensure damage incurred is rectified and any chance of recurrence is eliminated as soon as practicable. The Synergy – Action Plan Module will be used to assign and track corrective actions. All corrective actions will include reference to the relevant incident record for ease of tracking.	**Support Services Director** Project Director Environmental and Sustainability Manager	Corrective action records on Synergy – Action Plan Module
	SHE Alert Tool (M5N-HS-FRM-PWD-0003)	**SHE alerts** SHE Alerts will be submitted for all Class 1 and 2 incidents and HPIs to the Project Director and Environmental and Sustainability Manager for distribution outside of the Project team. SHE Alerts will also be raised for all other incident types at the discretion of the Environmental and Sustainability Manager, Project Director or Environmental and Sustainability Manager.	**Project Director** **Environmental and Sustainability Manager** Support Services Director	SHE Alerts
9.6 High potential and repeat incidents are regularly reviewed by the Project management team	Manage and Report SHE Incidents Procedure (M5N-HS-PRC-PWD-0003)	**Reviews** Each month the Environmental and Sustainability Manager will, as a minimum, identify trends in incidents (as a minimum, all Class 1 and 2 incidents and HPIs) and trends in root causes to suggest the nature of preventative actions which are warranted. The Project Director will approve actions to address incident occurrences and incident and root cause trends. Actions will be managed using the Synergy – Action Plan Module.	**Project Director** **Environmental and Sustainability Manager** **Support Services Director**	Monthly Project reports Corrective actions

Element 10: Emergency Planning and Response

We will actively prepare for and respond to emergencies.				
Expectations	**Procedures**	**How will we meet the expectation?** (minimum requirements)	**Responsible** Key Contributor	**Deliverables**
10.1 Potential emergencies are identified using a formal risk assessment process	Incident Response Plan for Construction (M5N-HS-PLN-PWD-0003) Conduct Construction Area Risk Assessment Procedure (M5N-RM-PRC-PWD-0001)	**Identifying potential emergencies** Risk assessments conducted in accordance with Element 4 of the CEMP are used to identify potential emergencies on the Project. Activities found to have an environmental consequence of 4 or 5 as per the definitions for environmental consequence contained within the Risk Management Procedure will be considered potential emergencies.	**Environmental and Sustainability Manager** Project Director Support Services Director	Risk Register Principal Risk Assessment
10.2 Emergency response plans and procedures are developed and regularly reviewed	Incident Response Plan for Construction (M5N-HS-PLN-PWD-0003) Manage a Crisis Procedure (M5N-CS-PRC-PWD-0001) Project WHS Management Plan (M5N-HS-PLN-PWD-0001)	**Incident response plan** An Incident Response Plan for Construction (M5N-HS-PLN-PWD-0003) that addresses all identified potential environmental emergencies with specific emergency procedures for each different potential emergency will be developed. The plan will address or include the following: • Nominated and trained emergency coordinator and emergency wardens • Explanation of communications to be performed during an emergency • Explanation of what a crisis is as compared to an emergency and what to do in the event of a crisis • The details of emergency services contacts • Emergency assembly locations • A detailed location map showing the site in relation to local public roads • A detailed site layout diagram • Information about personnel and facilities available to help emergency services • Specific emergency procedures for each potential emergency identified that aim to protect human health and environmental values, including assessment of resources required to respond to that emergency • Post-emergency actions.	**Support Services Director** Project Director Environmental and Sustainability Manager Safety Director	Incident Response Plan and procedures

		The Incident Response Plan for Construction (M5N-HS-PLN-PWD-0003) will be updated at least annually or when there are significant changes to Project activities or in response to revised and new risk assessments. The Manage and Report SHE Incidents Procedure (M5N-HS-PRC-PWD-0003) and Manage and Report SHE Incidents Procedure (M5N-HS-PRC-PWD-0003) will be followed in the first instance in the event of an environmental incident. The Environment and Sustainability Manager and Project Director or nominated delegates will notify Roads and Maritime, WCX M5 AT, the Environmental Representative, parent companies and relevant authorities, where required. Notification and reporting to Roads and Maritime would be undertaken in a consistent manner with the *Roads and Maritime Environmental Incident Classification and Reporting Procedure*.		
		Pollution Incident Response Management Plan As required by the POEO Act, CDS-JV will prepare, implement and test a Pollution Incident Response Management Plan for premises and activities covered by the Project's Environment Protection Licence.	**Support Services Director** Environmental and Sustainability Manager Safety Director	Pollution Incident Response Management Plan
10.3 Adequate resources are provided to effectively implement emergency response plans and procedures	Project Management Plan (M5N-PM-PLN-PWD-0001)	**Emergency response plans adequately resourced** Resources required to implement the Incident Response Plan for Construction (M5N-HS-PLN-PWD-0003) will be available on the Project and be maintained. These are planned and allowed for in accordance with the Commercial Management Plan and the Human Resources Management Plan. Necessary resources include: • An emergency coordinator and emergency wardens • Hydrocarbon spill response kits, including floating booms to prevent spills to waterways and sediment ponds, • Fire-fighting equipment • Barricading • Vehicles • Earthmoving equipment.	**Support Services Director** Commercial Director People and Capability Manager	Project budget Organisational structure in Project Management Plan

10.4 Environmental emergency response drills are conducted	Incident Response Plan for Construction (M5N-HS-PLN-PWD-0003) Plan for Emergencies Procedure (M5N-HS-PRC-PWD-0007)	**Environmental emergency response drills** Environmental emergency response drills will be conducted at least every six months. The emergency scenario of the drills will be rotated to avoid repetition and be relevant to the activities occurring at the time. The Safety Manager will keep records of the results of all drills. Where testing and evaluation shows a deficiency in either emergency preparations or the Incident Response Plan for Construction (M5N-HS-PLN-PWD-0002), appropriate corrective and preventive actions are taken and raised and managed using the Synergy – Action Plan Module.	**Safety Director** Support Services Director Environmental and Sustainability Manager	Emergency response drill records Corrective action records in Synergy – Action Plan Module
10.5 Employees, contractors and visitors are given appropriate emergency response training.	Incident Response Plan (M5N-HS-PLN-PWD-0003) Plan for Emergencies Procedure (M5N-HS-PRC-PWD-0007)	**Emergency training** Emergency coordinators and wardens are trained to implement the Incident Response Plan for Construction (M5N-HS-PLN-PWD-0003). Specific training requirements will be identified and captured within the training matrix and will be delivered according to the requirements of Element 6 of the Human Resources Management Plan. Visitors are informed of requirements during the visitors' induction. **General workforce training and awareness** All personnel and subcontractors will receive training to inform them of their roles and responsibilities in the event of an emergency. This training and awareness will be provided during Project induction.	**People and Capability Manager** Environmental and Sustainability Manager Safety Director	Training matrix Training schedule Training and induction records

Element 11: Document and Record Management

We will maintain accurate documents and records relevant to our Environmental Management System.				
Expectations	Procedures	How will we meet the expectation? **(minimum requirements)**	**Responsible** Key Contributor	Deliverables
11.1 Current versions of all relevant documents and records are available and controlled	Archive Retrieve and Dispose of Records Procedure (M5N-QA-PRC-PWD-0001)	**Document and record management** All documents and records referred to within and required to implement the CEMP (including the plan itself) will be controlled and maintained according to Project's Document and Records Management Plan, which is consistent with the procedure, Document and Record Management – CDS-JV Projects. A full list of environmental documents and records is provided within this procedure and below. **Document types** The types of documents to be controlled include: • Procedures • Protocols • Flow charts • Forms • Management plans • Checklists • Templates (e.g. audit template, training matrix). **Types of records** The types of records likely to be generated on the Project that are to be stored and maintained include: • Environmental monitoring results and reports • Complaints and enquiries received • Notifications received by regulators • Audit reports • Completed inspections and observations • Waste tracking certificates • Training records (including inductions) • Incident and non-conformance reports • Associated actions taken and follow-up actions in response to environmental incidents and environmental complaints	**Quality Manager** Environmental and Sustainability Manager	Controlled and maintained documents and records

We will maintain accurate documents and records relevant to our Environmental Management System.				
Expectations	Procedures	How will we meet the expectation? **(minimum requirements)**	**Responsible** Key Contributor	Deliverables
		• Calibration records for monitoring equipment • Monthly reports • Meeting minutes • Records as required under the National Greenhouse and Energy Reporting Act 2007 • HSE Alerts • Additional records identified in RMS D&C G36 Any editing and access restrictions to environmental documents and records and who has authority to dispose of nominated documents and records comprise: • Environmental and Sustainability Manager to authorise the disposal of any environmental documents or records. The minimum document retention periods beyond practical completion for environmental documents and records will be in accordance with G36, records must be held for at least five years after the Construction Completion Date. **Document control authorities** This CEMP, and subsequent revisions, must be authorised by the Environmental and Sustainability Manager and approved by the Project Director, the Environmental Representative and SMC before being submitted for approval to the Secretary, Department of Environment and Planning. The Plan will be submitted for the approval of the Secretary no later than one month prior to the commencement of construction, or as otherwise agreed by the Secretary. The following environmental sub plans will also follow this internal and external approval process: • Construction Air Quality Sub Plan (M5N-ES-PLN-PWD-0002) • Construction Noise and Vibration Sub Plan (M5N-ES-PLN-PWD-0003) • Construction Traffic and Access Sub Plan (M5N-ES-PLN-PWD-0004) • Construction Soil and Water Quality Sub Plan (M5N-ES-PLN-PWD-0005) • Construction Heritage Sub Plan (M5N-ES-PLN-PWD-0006) • Construction Flora and Fauna Sub Plan (M5N-ES-PLN-PWD-0007) All other new and revised environmental documents and records must be approved by the Environmental and Sustainability Manager.		

We will maintain accurate documents and records relevant to our Environmental Management System.				
Expectations	Procedures	How will we meet the expectation? **(minimum requirements)**	**Responsible** Key Contributor	Deliverables
11.2 Documents and records are stored in the appropriate systems.	Archive Retrieve and Dispose of Records Procedure (M5N-QA-PRC-PWD-0001)	All environmental documents and records generated on the Project will be stored and managed using Keystone with the following exceptions: • Environmental monitoring data will be managed and stored using Prism • Whole of CDS-JV environmental performance data will be managed and stored in JDE, including: - Water - Waste • Energy and Greenhouse Gases • Incident reports and corrective actions will be stored and managed using Synergy • Risk registers will be retained in ARMs. **Availability of documents** Subject to confidentiality, all documents subject to the CoA, including this CEMP will be made available for public inspection if requested. Confidential information, which may include the location of threatened species, Aboriginal objects or places and personnel contact details, will be removed from all documents provided or made available to the public. This CEMP is available to all personnel and sub-contractors via the Project document control management system. An electronic version of the CEMP is available on the project website, in accordance with CoA 5. Copies of this CEMP will be distributed via the project document management system to: CDS-JV Project Director; Environmental Representative; Environment & Sustainability Manager; Community Relations Manager; Roads & Maritime Representative; WCX M5 AT Representative; and Independent Certifier.	**Quality Manager**	Controlled and maintained documents and records

We will maintain accurate documents and records relevant to our Environmental Management System.				
Expectations	Procedures	How will we meet the expectation? **(minimum requirements)**	**Responsible** Key Contributor	Deliverables
11.3 Document Approvals – External parties		Documents called upon as part of the Projects Planning Approval will require consultation and/or approval from relevant government agencies. The consultation and approval requirements are provided in section 3.2 and table 12 of this CEMP. Minor Amendments to the CEMP will be approved by the Projects appointed Environmental Representative (ER). Minor Amendments are defined as follows: • Are editorial in nature (e.g. staff and agency / authority name changes) • Do not increase the magnitude of impacts on the environment when considered individually or cumulatively • Do not compromise the ability of the Project to meet contractual, approval or legislative requirements	**Project Director** **Support Services Director** Environmental and Sustainability Manager	

Element 12: Auditing, Review and Improvement

We will continually improve our Environmental Management Systems and environmental performance by monitoring and reviewing their effectiveness.				
Expectations	Procedures	How will we meet the expectation? **(minimum requirements)**	**Responsible** Key Contributor	Deliverables
12.1 Environmental performance trends are identified and corrective actions are implemented as required	Investigate SHE Incidents Procedure (M5N-HS-PRC-PWD-0002) Manage and Report SHE Incidents (M5N-HS-PRC-PWD-0003)	**Performance trends** Environmental performance will be reviewed and reported at least monthly to identify trends. Performance will be assessed against both lead and lag measures and relative to specific targets agreed as per Expectation 1.3 of the CEMP, and in the Environmental Sub Plans in Part C. Action plans will be developed to improve performance as required, corrective and preventative actions will be managed using the Synergy – Action Plan Module.	**Environmental and Sustainability Manager** Project Director Support Services Director	Monthly reports Corrective & Preventative actions in Synergy – Action Plan Module
12.2 A monthly environmental report is produced and distributed	Manage Reporting and Review Procedure (M5N-PM-PRC-PWD-0001) SWTC's	**General reporting requirements** Environmental reporting is required throughout the various stages of the Project. The Environment and Sustainability Manager will be responsible for drafting and issuing the reports as required under the contract and approval. Reporting requirements identified in the Project documents are addressed in Appendix B5. **Monthly reporting requirements** A monthly environment report will be prepared for the Project Director for inclusion in the monthly Project report. This report will include the following: • Analysis of performance against Project, business unit and corporate environmental targets. Part A of this CEMP • Analysis of performance against targets set in the environmental Sub Plans, including monitoring results • Details of each environmental incident on the Project for that period including actions taken and outstanding • Confirmation that the CEMP is compliant with the CDS-JV EMS by referring to the number and results of inspections, audits, observations and monitoring • Confirmation that the NGER procedure has been implemented during the month • Any environmental innovations implemented on the Project.	**Environmental and Sustainability Manager** Support Services Director	Monthly Environment Report Regular compliance certificate

We will continually improve our Environmental Management Systems and environmental performance by monitoring and reviewing their effectiveness.				
Expectations	Procedures	How will we meet the expectation? **(minimum requirements)**	**Responsible** Key Contributor	Deliverables
		The Monthly SHE Statistical Report in Synergy will be completed and approved by the Project Director. This includes reporting on the currency of the CEMP, compliance with the CEMP and issues and initiatives arising during the period.	**Project Director** Environmental and Sustainability Manager	Monthly HSE Statistical Report
12.3 Regular management reviews are conducted to determine the effectiveness of the CEMP	Manage Reporting and Review Procedure (M5N-PM-PRC-PWD-0001)	**Management system reviews** A review of the Project's environmental management system (EMS), will be conducted in accordance with Planning Approval conditions to ensure its continuing suitability and effectiveness. This will involve a formal meeting attended by the management team and may include a review of systems from other functional areas. An agenda will be agreed prior to the meeting and minutes kept. Necessary system improvements identified will be raised as corrective actions in the Synergy – Action Plan Module. The review will consider: • Opportunities to improve environmental management processes and practices; • Client and agency feedback; • Consideration of non-conformances and deficiencies; • Consideration of effectiveness of corrective and preventative actions; and • Changes or developments in the CPB Contractors environmental management system. The outcomes of the reviews may result in the amendment of this CEMP or related documents, revision to the environmental management system, risk assessment review, re-evaluation of the Project's objectives and targets as well as feeding into other Project documents. Necessary system improvements will be identified and raised as corrective actions in Synergy.	**Support Services Director** Environmental and Sustainability Manager Quality Manager	EMS review agenda, presentations and minutes Management review presentation material Corrective and preventative actions in Synergy – Action Plan Module
12.4 Audits are undertaken to ensure compliance with the requirements of the CEMP	HSE Audits, reviews and improvement Audit, Review and Improvement Group HSE governance	**Compliance with construction environmental management plan** Regular audits and reviews will be conducted to confirm compliance with the CEMP and associated Obligations. A schedule of audits and reviews will be developed and maintained and include: • Project planning reviews (conducted by Business Unit HSE Manager or delegate)	**Environmental and Sustainability Manager** Support Services Director	Audit reports Corrective and preventative actions in Synergy – Action Plan Module

We will continually improve our Environmental Management Systems and environmental performance by monitoring and reviewing their effectiveness.				
Expectations	Procedures	How will we meet the expectation? **(minimum requirements)**	**Responsible** Key Contributor	Deliverables
	monitoring	• Project mobilisation audits (conducted by Business Unit HSE Manager or delegate) • Subcontractor audits (for subcontractors performing high risk activities) • High-risk activity audits • Construction Environmental Management Plan audits (conducted by Business Unit Environmental and Sustainability Manager or delegate) • Compliance and Legislative audits (conducted by BUEM or competent 3rd party) • Construction Environmental Management Plan required by Department of Planning and Infrastructure (conducted by Environmental and Sustainability Manager). Environmental audits will be conducted at regular intervals during construction of the Project to ensure compliance. Internal and external environmental audits will be undertaken in accordance with AS/NZS ISO 19011. An indicative audit schedule is included in Appendix B5. Action plans will be developed to improve performance as required. Necessary corrective actions will be managed using Synergy.		
12.5 Compliance Tracking	Compliance Tracking Program	**Compliance tracking program** In accordance with the Planning Approval conditions CDS-JV will develop and implement a Compliance Tracking Program to track compliance with the requirements of the Infrastructure Approval. Periodic review of the compliance status will be undertaken with reports provided to the Secretary every three months. The Compliance Tracking Program (CTP) developed for the Project includes the following: (a) Provisions for the notification of the Secretary prior to the commencement of construction and prior to the commencement of operation of the Project (including prior to each stage, where works are being staged); (b) provisions for periodic review of the compliance status of the Project against the requirements of this approval; (c) provisions for periodic reporting of compliance status to the Secretary, including a Pre-Construction Compliance Report, quarterly Construction Compliance Reports, for the duration of construction, and a Pre-Operation Compliance Report; (d) a program for independent environmental auditing in accordance with ISO 19011:2003 Guidelines for Quality and/ or Environmental Management Systems Auditing;	**Environment and Sustainability Manager**	Tracking program

We will continually improve our Environmental Management Systems and environmental performance by monitoring and reviewing their effectiveness.				
Expectations	Procedures	How will we meet the expectation? **(minimum requirements)**	**Responsible** Key Contributor	Deliverables
		(e) mechanisms for recording environmental incidents during construction and actions taken in response to those incidents; (f) provisions for reporting environmental incidents to the Secretary and relevant public authorities during construction; (g) procedures for rectifying any non-compliance identified during environmental auditing, review of compliance or incident management; and (h) provisions for ensuring all Employees, contractors and sub-contractors are aware of, and comply with, the conditions of this approval relevant to their respective activities. The CTP describes how the requirements of the PA will be met and sets out a program and frequency for compliance reporting and independent auditing.		
12.6 All audits are undertaken by suitably qualified and experienced personnel	Audit, Review and Improvement	**Auditor competency** Persons conducting audits and reviews will be suitably experienced and qualified. There are two levels of internal auditor that can be obtained, these being Auditor and Lead Auditor. A mix of general education, specific auditor training and work experience are considered in determining the level of auditor. Auditors must be approved by the Business Unit Environmental and Sustainability Manager.	**Support Services Director**	Training records

Part C: Appendix A

The following environmental sub plans are part of this CEMP:

- Construction Air Quality Sub Plan (CAQSP; M5N-ES-PLN-PWD-0002)
- Construction Noise and Vibration Management Plan (CNVMP; M5N-ES-PLN-PWD-0003)
- Construction Traffic and Access Sub Plan (CTASP; M5N-ES-PLN-PWD-0004)
- Construction Soil and Water Quality Sub Plan (CSWQSP; M5N-ES-PLN-PWD-0005)
- Construction Heritage Sub Plan (CHSP; M5N-ES-PLN-PWD-0006)
- Construction Flora and Fauna Sub Plan (CFFSP; M5N-ES-PLN-PWD-0007)
- Construction Waste and Resource Sub Plan (CWRSP; M5N-ES-PLN-PWD-0008), also a sub-plan to the Sustainability Plan

Note that the CNVMP, CHSP, CFFSP and the Construction Contaminated Land Management Plan (M5N-ES-PLN-PWD-0033) include sensitive area plans that identify the relevant environmental constraints within and around the project footprint. These constraints are incorporated into the Site Environment Plans (SEPs) as described in Section 3.1.5.

Appendix A1: Construction Air Quality Sub-Plan

Appendix A2: Construction Noise and Vibration Management Plan

Appendix A3: Construction Traffic and Access Management Plan

Appendix A4: Construction Soil and Water Sub-Plan

Appendix A5: Construction Heritage Sub-Plan

Appendix A6: Construction Flora and Fauna Sub-Plan

Appendix A7: Construction Waste and Resource Sub-Plan

Part D: Appendix B

Appendix B1: Project Environmental Policy

WestConnex New M5

Environmental Policy

CPB Contractors, Dragados, Samsung Joint Venture (CDS-JV) is committed to achieving excellence in the delivery of environmental outcomes. We strive to strike the balance between delivering economic and operational outcomes during design and construction whilst meeting our environmental obligations.

CDS-JV is committed to:

- Continual improvement and the prevention of pollution through regular reviews of our environmental performance.
- The identification of construction aspects and environmental impacts associated with construction activities and ensuring the effective risk control measures are in place.
- Complying with all applicable legislative, regulatory and other requirements associated with the design and construction of the project
- Promoting good environmental practice and community relationship management both internally and with external project stakeholders

CDS-JV will apply the following practices:

- Promoting a culture of innovation, engagement and participation towards all activities
- Management team will demonstrate a personal visible commitment to our environmental culture and ensure all workers are empowered and understand the requirements of the Environmental Management System.
- Setting frameworks that strive to minimise environment and community impacts by the application of appropriate risk management techniques throughout the design and construction cycles.
- Environmental objectives, targets and key performance indicators established at all levels of the project with performance against these monitored and analysed to provide baseline for continual improvement.
- The implementation of environmental plans and procedures eliminate or minimise environmental risk from construction activities.
- All environmental incidents must be reported in accordance with the incident notification requirements, they must be thoroughly investigated and appropriate corrective action undertaken with the aim of preventing recurrence of the incident.
- Effective communication, cooperation and consultation channels in place to consult with internal and external stakeholders who may impact upon the environment.
- Provide employees with information, training and support they require to meet our objectives.
- Monitoring, auditing and review implementation to ensure continuous improvement.

Authorisation

..... **Date:** 30 May 2016

Tim Orpen

Project Director

Appendix B2: Environmental Roles and Responsibilities

R= Responsible C= Contributor	Project Director	Support Services Director	Environmental and Sustainability Manager	Design Manager	Project Engineers	Supervisors	Line Managers (Surface / Tunnel / M&E / Project Controls Mangers)	People and Capability Manager	Commercial Director	Quality Manager	Community Manager	Safety Director
Element 1 Leadership, Accountability and Culture												
1.1 Environmental accountabilities, roles and responsibilities for managers, staff and Employees are clearly defined, documented and communicated	C	R	C				C	R				
1.2 Environmental leadership and commitment is demonstrated through measurable participation in environmental management	R	C	C			C	C					
1.3 Environmental expectations are clearly defined with appropriate reward and disciplinary processes in place	R	R					C	C				
Element 2 Planning												
2.1 Adequate resources are provided to effectively implement the CEMP		R	R					C	C			
2.2 IT systems are defined and established			R									
2.3 Environmental Sub-Plans are prepared for Significant Environmental Hazards		C	R									
Element 3 Legal and Other Compliance												
3.1 Relevant legal, CDS-JV EMS requirements, contractual and other requirements are identified and maintained in a legal and other obligations register	C	R	R						C			
3.2 All necessary environmental approvals are obtained prior to commencing relevant works			R		C		C					
3.3 Work is planned and executed to ensure compliance			R	C	R	R	R			C		
3.4 Inspections, observations and monitoring are performed to ensure compliance is maintained			R		C	R	C					
3.5 All non-compliances are reported as incidents		R	R							C		
3.6 All energy and greenhouse data are collected and entered into JDE		C	R						R			

R= Responsible C= Contributor	Project Director	Support Services Director	Environmental and Sustainability Manager	Design Manager	Project Engineers	Supervisors	Line Managers (Surface / Tunnel / M&E / Project Controls Mangers)	People and Capability Manager	Commercial Director	Quality Manager	Community Manager	Safety Director
3.7 Personnel on the site have access to current versions of relevant legislation, standards and codes of practice			R									
3.8 Disputes with Approval Conditions		R	C									
3.9 Compliance Tracking			R									
Element 4 Risk Management and Controls												
4.1 Systematic processes are defined and implemented for identifying environmental risks at all stages of the Project	R	R	R	C	C	C	C					
4.2 Identified risks are analysed and evaluated according to agreed criteria and recorded in a risk register	C	R	R		C							
4.3 Environmental controls appropriate to the level of risk are identified, documented and implemented			R		C		R					
4.4 Feasible opportunities are implemented		R					R					
4.5 Identified environmental risks and controls are communicated to all relevant personnel			R		R		R	R				C
4.6 Regular inspections and monitoring are conducted to check effectiveness of controls		C	R		C	C						
4.7 Environmental risks and controls are regularly reviewed		R	C	C	C							
Element 5 Change Management												
5.1 Changes to planned operations that have potential environmental consequences are identified		R	R	C	C	C	C					
5.2 Risks associated with identified changes are assessed and controlled before changes are implemented		R	R			C	C					
5.3 All changes with environmental consequences are authorised before they are implemented			C	C		C	R					
5.4 Controls associated with change are communicated to all affected personnel				C		R	R					

R= Responsible C= Contributor	Project Director	Support Services Director	Environmental and Sustainability Manager	Design Manager	Project Engineers	Supervisors	Line Managers (Surface / Tunnel / M&E / Project Controls Mangers)	People and Capability Manager	Commercial Director	Quality Manager	Community Manager	Safety Director
5.5 Project Changes and effects on Approvals			R	R			C					
Element 6 Communication and Consultation												
6.1 External environmental stakeholders are identified		C	C								R	
6.2 Relationships with external stakeholders are effectively managed		C	R								R	
6.3 Internal consultative forums are established with regular meetings scheduled, conducted, documented and communicated		R	C								R	R
6.4 Environmental complaints and enquiries are recorded and responded to appropriately	R	C	R								R	
6.5 The effectiveness of internal and external stakeholder engagement is evaluated and improved	R		C								R	C
Element 7 Training and Competency												
7.1 All personnel have completed an induction containing relevant environmental information before they are authorised to work on the Project			R					C				C
7.2 A training plan is developed and documented			R					R				
7.3 Personnel are trained and assessed according to the training plan		R	R					C				
7.4 Training records are maintained and accessible to relevant personnel			C					R				
7.5 Toolbox Training			R			C						
7.6 Daily Pre-starts						R						
Element 8 Subcontractor Relationships												
8.1 Selection processes ensure that subcontractors meet CDS-JV's minimum environmental requirements			C		C				R			
8.2 Planning requirements of all subcontractor work scopes are completed and communicated prior to commencing work		R	R		C		R		C			
8.3 Subcontractor documentation is submitted and reviewed to meet Project requirements			C		R							

R= Responsible C= Contributor	Project Director	Support Services Director	Environmental and Sustainability Manager	Design Manager	Project Engineers	Supervisors	Line Managers (Surface / Tunnel / M&E / Project Controls Mangers)	People and Capability Manager	Commercial Director	Quality Manager	Community Manager	Safety Director
8.4 Changes to the scope of work are managed as a Project change					C		R		C			
8.5 Subcontractors actively participate in environmental management on the Project			C		R				C			
8.6 Subcontractors are reviewed to assess their performance and compliance with our minimum environmental requirements			R		C	C						
Element 9 Incident Management												
9.1 All incidents are followed by appropriate response and notification	R	R	C		C	R					C	
9.2 All incidents are entered into and closed out in the HSE Reporting System (Synergy)		C	R			C						
9.3. Incident investigations are conducted appropriate to the type of incident		R	C		C	C						
9.4 All personnel conducting incident investigations are trained to competently perform the task	C	R										
9.5 Corrective and preventative actions are taken after incidents and lessons are shared with other Projects	R	R	R									
9.6 High potential and repeat incidents are regularly reviewed by the Project management team	R	R	R									
Element 10 Emergency Planning and Response												
10.1 Potential emergencies are identified using a formal risk assessment process	C	C	R									
10.2 Emergency response plans and procedures are developed and regularly reviewed	C	R	C									C
10.3 Adequate resources are provided to effectively implement emergency response plans and procedures		R						C	C			
10.4 Emergency response drills are conducted		C	C									R
10.5 Employees, contractors and visitors are given appropriate emergency response training			C					R				C

R= Responsible C= Contributor	Project Director	Support Services Director	Environmental and Sustainability Manager	Design Manager	Project Engineers	Supervisors	Line Managers (Surface / Tunnel / M&E / Project Controls Mangers)	People and Capability Manager	Commercial Director	Quality Manager	Community Manager	Safety Director
Element 11 Document and Record Management												
11.1 Current versions of all relevant documents and records are available and controlled			C							R		
11.2 Documents and records are stored in the appropriate systems										R		
11.3 Document Approvals – External Parties	R	R	C									
Element 12 Auditing, Review and Improvement												
12.1 Environmental performance trends are identified and corrective actions are implemented as required	C	C	R									
12.2 A monthly environmental report is produced and distributed	R	C	R									
12.3 Regular management reviews are conducted to determine the effectiveness of the CEMP		R	C							C		
12.4 Audits are undertaken to ensure compliance with the requirements of the CEMP		C	R									
12.5 Compliance Tracking			R									
12.6 All audits are undertaken by suitably qualified and experienced personnel		R										

Appendix B3: Environmental Obligations Register

Source	Ref no	Obligation	Document Reference
Environmental Planning and Assessment Act 1979	S115W	The Minister's approval is required for State Significant Infrastructure.	A State Significant Infrastructure application has been made to the Minister, with requirements issued by the Director-General
	S115Z	Pubic consultation for the Environmental Impact Statement is required.	Requirements from the final approval will be included in the CEMP and other Sub Plans as applicable
	S115ZG	Approvals that do not apply to Part 5.1 Projects.	Monitoring of compliance with approval conditions is outlined in Element 3
	S115ZI	Comply with the terms Minister for Planning's approval for the Project. Obtain the Minister's approval for any Project modifications that are not consistent with the planning approval.	A change management process to determine if modifications are consistent with the planning approval is outlined in Element 5
Protection of the Environment Operations Act 1997	S47	Do not carry out or allow an activity listed in Schedule 1, or carry out work to enable such an activity, unless the premises are licensed by the EPA.	Environmental Protection Licence to be sought for the Project as per Element 3
	S48	Road construction: meaning the construction, widening or re-routing of roads if it results in the existence of 4 or more traffic lanes (other than bicycle lanes or lanes used for entry or exit) for 1 kilometres of their length in the metropolitan area, or 5 kilometres in length in any other area, where the road is classified, or proposed to be classified, as a freeway or tollway under the Roads Act 1993.	
	S115	Do not risk harming the environment by willfully or negligently:	CWRSP, CSWQSP and CAQSP
	S116	Disposing of waste unlawfully	
	S117	Causing any substance to leak, spill or otherwise escape (whether or not from a container), or	
		Emitting an ozone depleting substance	
	S148	Notify the EPA immediately of pollution incidents where material harm to the environment is caused or threatened.	External notification requirements included in Element 9
	S167	Properly and efficiently maintain and operate any installed pollution control equipment (including monitoring devices).	Element 3 CSWQSP
Environmentally Hazardous Chemicals Act 1985	S28	Obtain a licence to undertake prescribed activities involving environmentally hazardous chemicals or declared chemical wastes.	Approvals and licences will be sought as per Element 3
Dangerous Goods (Road and Rail Transport) Act 2008	S9	Ensure that dangerous goods are transported in a safe manner.	CSWQSP

Source	Ref no	Obligation	Document Reference
Pesticides Act 1999	S12	Use pesticides in an environmentally sensitive manner.	CFFSP Risk Assessment for the task
	S13	Do not use an unregistered pesticide without a permit.	
	S14	Read the label or permit for the pesticide.	
	S15	Use registered pesticides in accordance with instructions on the label.	
	S17	Do not use any restricted pesticide unless authorised by a certificate of competency or a pesticide control order under the Act.	
		Compliance with pesticide codes of practice is required.	
National Greenhouse and Energy Reporting Act, 2007 and Regulations 2008		Accounting and reporting of greenhouse gases produced and energy consumed during construction. Applicability dependent on thresholds.	Sustainability Plan
Water Management Act 2000	S56, S57, 60A, 60F	Do not take water from a water source (a lake, river or estuary or place where water occurs naturally on or below the surface of the ground, and includes coastal waters) without an access licence. This is also relevant to unregulated river access licences.	Roads authorities are exempt from requiring a Water Access Licence for road construction and maintenance activities under Schedule 5, Part 1, clause 2 of the *Water Management (General) Regulation 2011*
	S89	Do not use water on land (unless supplied by a water utility, irrigation corporation or in accordance with basic landholder rights) without a water use approval.	Under the EP&A Act the Project is exempt from water use approvals.
	S91A		
	S90	Do not construct/use a water supply work, drainage work or flood work without the appropriate approval.	Under the EP&A Act the Project is exempt from water management works approvals.
	S91B		
	S91C		
	S91D		
	S91	Do not deposit material, excavate, or remove material within a watercourse bank, shore or bed, or on land 40 metres inland, or interfere with the likely flow of water to such a body, without a controlled activity approval.	Under the EP&A Act the Project is exempt from activity approvals (excluding aquifer interference activities). Aquifer Interference approvals have not yet commenced. DPI Water will be consulted in regards to ongoing licensing requirements under this Act.
	S91E		
	S91F		
Water Act 1912	S21B	Obtain a licence or permit for construction or use of 'work' for purposes including the taking and using of water.	Note that this Act is being progressively repealed by the Water Management Act

Source	Ref no	Obligation	Document Reference
	S105	Obtain a licence where interference with groundwater is likely to occur.	2000 and does not apply to areas of the state where water sharing plans are in place. Groundwater and surface water within and near the Project are covered by the following Water Sharing Plans: Groundwater Metropolitan Region Groundwater Sources and the Greater Metropolitan Region Unregulated River Water Sources
	S112 S116D S121A	Note that a licence is required if groundwater is to be used for any purpose.	
	S180	Obtain an approval for controlled works. These include works which occur on a designated floodplain, which can prevent land from being flooded or which can affect water flow to or from a river or lake.	
Protection of the Environment Operations Act 1997	S120 S122	Do not cause water pollution (other than to a sewer), except in accordance with the conditions of any EPA licence.	CSWQSP
Sydney Water Act 1994	S49	Approval to discharge wastewater to sewer and trade Waste Agreement.	Approvals and licences will be sought as per Element 3. CSWQSP
Protection of the Environment Operations Act 1997	S139	Do not operate plant if it emits noise caused by poor maintenance or operation.	CNVSP
	S140	Do not cause noise by failing to properly and efficiently deal with materials.	CNVSP
Protection of the Environment Operations Act 1997	S124	Do not operate plant which emits air pollution caused by poor maintenance or operation.	CAQSP
Protection of the Environment Operations (Clean Air) Regulation 2010	S15	Excessive impurities are visible for a continuous period of more than 10 seconds.	CAQSP
	Schedule 4	Air emission concentrations for scheduled premises.	CAQSP
Protection of the Environment Operations Act 1997	S142A – S142E	Do not cause or permit land pollution other than under authority of a licence or regulation. (However it is not a land pollution offence to place virgin excavated natural material or lawful pesticides and fertilisers on land, or by placing matter on land that has been notified to the EPA as an unlicensed landfill and which is operated in accordance with the regulations).	CSWQSP
Contaminated Land Management Act 1997	S60	Notify the EPA if: Contaminants exceed thresholds contained in guidelines or the regulations where contamination has entered or will foreseeably enter neighbouring land, the atmosphere, groundwater or surface water	CCLMP, CSWQSP

Source	Ref no	Obligation	Document Reference
		Contaminants in soil are equal to or exceed guideline levels with respect to the current or approved use of the land	
		Contamination meets other criteria that may be prescribed by the regulations.	
Noxious Weeds Act 1993	S13	As a public authority occupier of land, to control noxious weeds on the land as required under the control category or categories specified in relation to the weeds concerned.	CFFSP
	S16	Notify relevant control authority within 3 days of becoming aware that a notifiable weed (W1 weed) is on land. (or ought reasonably to have known).	
	S30	Must not scatter or cause to scatter notifiable weed material.	
	S32	Do not move or use machinery or equipment within NSW or interstate that has a notifiable weed on it.	
National Parks and Wildlife Act 1974	S118A	Do not harm any animal or pick native plant that is of a threatened species, endangered population or endangered ecological community, or its habitat and critical habitat except in accordance with a planning approval.	CFFSP
	S118C		
	S118D		
	S117	Do not pick protected native plants without a licence.	CFFSP
	S131		Under the EP&A Act the Project is exempt from this licence.
	S98	Do not harm critical habitat except as in accordance with a planning approval.	CFFSP
	S120	Do not harm native fauna (other than listed unprotected fauna) except in accordance with a planning approval or licence.	CFFSP
	S127		
	132C		
Threatened Species Conservation Act 1995 and Threatened Species Conservation Amendment Act 2002	S6-S9	Relates to the protection of species, ecological communities, populations and critical habitat listed as endangered or vulnerable.	CFFSP.
	S91	Permit required for the translocation of plant species / individuals.	CFFSP
			Under the EP&A Act the Project is exempt from this licence.
		Consultation shall be carried out with OEH in accordance with EP&A Act approvals. Approvals may be required to remove vegetation in some areas should it be required.	CFFSP
Native Vegetation Act 2003	S12	Only clear native vegetation in accordance with a planning approval or property vegetation plan.	Under the EP&A Act the Project is exempt from this licence

Source	Ref no	Obligation	Document Reference
Fisheries Management Act 1994	S205	Do not harm any mangroves, seagrasses or other marine vegetation on public water land protected by the regulations without a permit.	Under the EP&A Act the Project is exempt from this licence
	S218	Prior to construction, alteration or modification of a dam weir or reservoir on a waterway the Project is required to notify the Minister and incorporate a bypass or fish-way if requested from the DP&I NSW.	Approvals and licences will be sought as per Element 3.
			CFFSP
	S219	Do not block fish passage without a permit.	Under the EP&A Act the Project is exempt from this licence
Environment Protection Biodiversity Conservation Act, 1999 (Cwealth)	Part 13	Do not kill, injure or take a member of a listed threatened species without a permit.	As part of the preparation of the Environmental Impact Statement it will be confirmed if the works trigger this act.
			Applicable controls will be identified as part of this process and will be included in the Construction Flora and Fauna Sub Plan
Protection of the Environment Operations Act 1997 and Amendment Act 2005	S115	Do not dispose of waste in a manner that harms or is likely to harm the environment.	CWRSP
	S143	Do not litter in a public place or an open private place. Do not litter from a vehicle.	CWRSP
	S145	Only deposit advertising material in receptacles provided for mail or newspapers or under the door of the premises.	
	S146	Do not deposit advertising material on or in vehicles.	
	S146A	Do not transport waste to a place that cannot lawfully be used as a waste facility for that waste.	
	S146B		
	S47	Do not undertake a scheduled waste activity unless in accordance with an environmental protection licence.	
	Schedule 1	A licence must be obtained when construction and demolition wastes are applied to land under certain circumstances. This includes the reincorporation of crushed road base material back into roads and the placing of excess fill material onto properties. A licence is not required if the material:	CWRSP
		Is VENM	
		Does not exceed 200 tonnes in the Sydney, Newcastle and Wollongong areas, or 20,000 tonnes outside these areas	
		Is covered by a “general exemption”. (Current exempted materials are ENM, recycled aggregates and raw mulch. These exemptions are conditional and require some chemical testing of materials before they are placed onto land).	

Source	Ref no	Obligation	Document Reference
		A licence must be obtained if more than 2,500 tonnes (or cubic metres) are stored on a stockpile site at any one time, or more than 30,000 tonnes of waste is received per year from off site.	
Protection of the Environment Operations (Waste) Regulation 2005	Reg'n cl. 42	When disposed offsite asbestos must be taken to a landfill which may lawfully receive the waste. The person delivering the waste must notify the landfill that it contains asbestos and unload it in a way which prevents the generation of dust.	CWRSP
	Reg'n cl.49	Comply with general requirements for the transport of waste. For example, any vehicle used by the person to transport waste must be kept in a clean condition and be maintained so as to prevent spillage of waste. For some wastes only licensed transporters can be used.	CWRSP
Heritage Act 1977	S56-57	Do not undertake an activity that will affect a place, building, work, relic, moveable object or precinct which is subject to an Interim Heritage Order or is listed on the State Heritage Register without approval from the Heritage Council.	Under the EP&A Act the Project is exempt from this licence
	S139	Do not disturb or excavate land with knowledge or reasonable cause to suspect that the disturbance or excavation will or is likely to result in a relic being discovered, exposed, moved, damaged or destroyed; or Do not disturb or excavate land on where a relic has been discovered or exposed.	Under the EP&A Act the Project is exempt from this licence
	S146	Notify the heritage Council on discovery of a relic.	CCHSP
National Parks and Wildlife Act 1974	S86	Do not harm or desecrate an Aboriginal object or Aboriginal place without consent.	CCHSP
	S89A	Notify the NPWS within reasonable time of becoming aware of the location or discovery of certain Aboriginal objects.	CCHSP
	S90	An Aboriginal heritage impact permit may be issued.	Under the EP&A Act the Project is exempt from this licence
Aboriginal and Torres Strait Islander Heritage Protection Act 1984 (Cwealth)	S20	Report any discovery of Aboriginal remains to the Federal Minister for the Environment and Heritage.	CCHSP
	S22	Comply with the provisions of any declaration in relation to a significant Aboriginal area or object.	CCHSP

Appendix B4: Environmental Risk Register

The Environmental Risk Analysis has been undertaken in accordance with the principles of the Australian and New Zealand standard AS/NZS ISO 31000: 2009 Risk Management – Principles and Guidelines. The risk analysis involved:

- Ranking the risk of each identified potential impact by identifying the consequences of the impact and the likelihood of each impact occurring
- Considering the probable effectiveness of the proposed mitigation measures to determine the likely residual risk of each impact.

The CDS-JV Environmental Risk Register is provided in Table D4. The table identifies the construction aspects of the Project, the associated potential environmental impacts and a risk rating for those impacts. Applicable management measures are nominated within the Construction Environmental Management Plan which are identified in the table. Management measures may include physical controls, procedures, forms, checklists, monitoring requirements and permits. A revised risk rating, assuming the controls nominated within the environmental management plans are implemented, are also included in the table.

Refer to table D1 for the Likelihood of the event occurring.

Refer to table D2 for the Consequence if the event occurs.

Refer to table D2 for the Risk Rating.

Table D1: Likelihood criteria

Probability (likelihood)	Description (1)	Description (2)	Description (3)
Almost certain (5)	Common /Frequent Occurrence	Can be expected to occur 75% – 99%	More than 1 event per month
Likely (4)	Is known to occur or “It has happened regularly”	Can quite commonly occur 50% - 75%	More than 1 event per year
Possible (3)	Could occur or “I’ve heard of it happening”	May occasionally occur 25% - 50%	1 event per 1 to 10 years
Unlikely (2)	Not likely to occur very often	May infrequently occur 10% - 25%	1 event per 10 to 100 years
Rare (1)	Conceivable but only in exceptional circumstances	May occur in exceptional circumstances 0% - 10%	Less than 1 event per 100 years

Table D2: Consequence criteria relevant to environment and heritage

Consequence (impact)	Description
Negligible (1)	Short term ecological damage
Minor (2)	Limited but medium term ecological damage
Moderate (3)	Major but recoverable ecological damage
Major (4)	Heavy ecological damage, costly restoration
Substantial (5)	Permanent widespread ecological damage

Table D3: Risk Rating

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

Table D4: CDS-JV Environmental risk register

Note: Risk rankings are identified as extreme (E), very high (VH), high (H), moderate (M), and low (L).

Construction aspect (Significant Environmental Hazard)	Potential Environmental Impact (risk)	L	C	Initial risk rating	Environmental management	L	C	Residual risk rating
Vegetation clearance / grubbing / demolition	Clearing outside of approved area / beyond drawing requirements	5	2	M10	CFFSP	1	2	L6
	Impacts on unexpected threatened species	2	4	H15	CFFSP	1	4	H14
	Displacement of, or injury to fauna including Green and Gold Bell Frog	3	2	M8	CFFSP GGBF PoM Arncliffe Site Specific AFMP	2	2	L7
	Spread of noxious weeds via personnel, plant / equipment, topsoil/mulch	3	2	M8	CFFSP	2	2	L7
	Generation of dust leading to amenity, community nuisance	5	3	VH18	CAQSP	3	3	H13
	Removal of heritage listed trees, loss of screening for heritage properties or impacts to heritage curtilage (beyond approved impacts)	3	4	VH19	CCHSP	1	4	H14
	Complete / partial loss of heritage value for future generations due to insufficient archival recording	5	2	M10	CCHSP	1	2	L6

Construction aspect (Significant Environmental Hazard)	Potential Environmental Impact (risk)	L	C	Initial risk rating	Environmental management	L	C	Residual risk rating
	Erosion and sedimentation impacts on downstream waterways due to exposed land, inadequate controls or failure of controls	5	2	M10	CSWQSP	3	2	M8
	Erosion and sedimentation impacts on downstream wetlands (Botany Bay incl RAMSAR) due to exposed land, inadequate controls or failure of controls	2	4	H15	CSWQSP	1	4	H14
	Inappropriate disposal of waste including demolition, vegetation and hazardous or special waste, including asbestos	5	4	E23	CWRSP CLCSP CCLMP	3	2	M8
	Missed opportunities to maximise beneficial re-use of wastes	5	1	L5	CWRSP Sustainability Management Plan Spoil Management Plan	3	1	L3
Earthworks and excavation	Generation and mobilisation of dust from construction sites and spoil removal trucks impacting receivers including residents, businesses, vegetation and habitats	5	2	M10	CAQSP CSWQP	4	2	M9
	Generation of odour	3	4	VH19	CAQSP	3	3	H13
	Disturbance or damage of unidentified Aboriginal heritage artefact	1	4	H14	CCHSP	1	3	M11
	Disturbance or damage of non-Aboriginal heritage item	4	3	VH17	CCHSP	2	3	H12
	Noise and vibration impacts on nearby receivers	5	3	VH18	CNVSP TNBS	3	2	M8
	Erosion and sedimentation impacts on downstream waterways due to exposed land, inadequate controls or failure of controls	5	3	VH18	CSWQSP	3	3	H13

Construction aspect (Significant Environmental Hazard)	Potential Environmental Impact (risk)	L	C	Initial risk rating	Environmental management	L	C	Residual risk rating
	Erosion and sedimentation impacts on downstream wetlands (Botany Bay) due to exposed land, inadequate controls or failure of controls	2	4	H15	CSWQSP	1	4	H14
	Pollution of groundwater	1	3	M11	CSWQSP	1	2	L6
	Distribution of or mis-management of unexpected contamination or acid sulfhate soils	5	3	VH18	CSWQSP CCLMP	2	3	H12
	Incorrect disposal of contaminated spoil (including asbestos)	5	4	E23	CWRSP CCLMP	2	3	H12
	Discharge of polluted water	4	3	VH17	CSWQSP	3	3	H13
	Noise and vibration impacts on nearby receivers, including out of hours impacts	5	3	VH18	CNVSP TNBS	4	2	M9
Establishment and operation of ancillary facilities	Amenity and visual impacts on nearby receivers due to compounds, including light spill and overshadowing	5	2	M10	AFMP CEMP TNBS	4	2	M9
	Spread of pathogens or noxious weeds via personnel, plant / equipment, topsoil/mulch	4	2	M9	CFFSP	3	2	M8
	Dust impacts to receivers due to stockpiling, exposed surfaces, material handling	5	2	M10	CAQSP CSWQSP	3	2	M8
	Noise and vibration impacts on nearby receivers, including out of hours impacts	5	3	VH18	CNVSP TNBS	4	2	M9
	Failure of construction water treatment plant leads to uncontrolled discharge or discharge that doesn't meet Infrastructure Approval or EPL conditions	4	4	VH20	CSWQSP	3	4	VH19
	Contamination of soil or water from spill or leak of dangerous or hazardous materials from plant / equipment	5	2	M10	CSWQSP	4	1	L4
	Contamination of soil or water from spill or leak of dangerous or hazardous materials from bulk storage	3	4	VH19	CSWQSP	2	2	L7

Construction aspect (Significant Environmental Hazard)	Potential Environmental Impact (risk)	L	C	Initial risk rating	Environmental management	L	C	Residual risk rating
	Erosion and sedimentation impacts on downstream waterways due to exposed land, inadequate controls or failure of controls	5	2	M10	CSWQSP	2	2	L7
	Inappropriate disposal of waste including hazardous or special waste, including asbestos	3	4	VH19	CWRSP	2	3	H12
	Inappropriate disposal of office wastes	5	1	L5	CWRSP	3	1	L3
	Traffic and parking impacts due to increased number of construction vehicles, site access arrangements	5	2	M10	CTASP TMP	3	2	M8
	Tracking of mud at ancillary facilities access points	4	2	M9	CAQSP CSWQSP	3	1	L3
General construction activities	Breach of PA or EPL conditions, legal or client requirements leading to PINs, fines, prosecution, loss of reputation, strained relationships, contractual implications	5	4	E23	CEMP and sub plans	3	3	H13
	Minor incidents, e.g. small leaks / spills, that do not cause or threaten material harm to the environment	5	1	L5	CEMP CSWQSP	4	1	L4
	Serious incidents, e.g. uncontrolled release of concrete washout water, water treatment plant, major fuel spill, that cause or threaten material harm to the environment	4	4	VH20	CEMP CSWQSP	2	4	H15
	Generation of dust due to cutting/grinding/sawing equipment, material /waste/spoil handling; and generation of exhaust emissions due to inappropriate plant maintenance	5	2	M10	CAQSP	3	2	M8
	Noise and vibration impacts on nearby receivers, including out of hours impacts resulting in structural damage or community complaints	5	3	VH18	CNVSP	3	3	H13

Construction aspect (Significant Environmental Hazard)	Potential Environmental Impact (risk)	L	C	Initial risk rating	Environmental management	L	C	Residual risk rating
	Inappropriate disposal / management of waste including hazardous or special waste, asbestos and other contaminated material (including Alexandria landfill)	5	3	VH18	CWRSP CLCSP	3	2	M8
	Visual impacts on nearby receivers due to light spill, construction works, overshadowing	5	2	M10	AFMP Work Pack	2	1	L2
	Traffic and parking impacts due to increased number of construction vehicles, site access arrangements	5	2	M10	CTASP	4	2	M9
	Contamination of soil or water from spill or leak of dangerous or hazardous materials from plant / equipment	5	2	M10	CSWQSP	4	1	L4
	Inappropriate management of concrete wastes, overtopping of washout area (e.g. during a rain event)	5	3	VH18	CSWQSP	2	2	L7
	Uncontrolled (beyond design) release of sediment basins of runoff from disturbed areas resulting in uncontrolled discharge to soils or water	5	3	VH18	CSWQSP	2	3	H12
	Litter, inappropriate use of co-mingling and waste receptacles	5	1	L5	CWRSP[	3	1	L3
	Failure to realise opportunities to recycle water to reduce discharge, beneficial re-use of materials	5	1	L5	CWRSP	3	1	L3
Tunnel excavation	Vibration leading to structural damage or cosmetic damage	5	4	E23	CNVSP Blast Management Strategy	2	3	H12
	Regenerated noise impacts on nearby receivers, including out of hours impacts, resulting in sleep disturbance or community complaints	5	2	M10	CNVSP	3	2	M8
	Vibration leading to damage of heritage items	3	3	H13	CNVSP Blast Management Strategy	2	3	H12

Construction aspect (Significant Environmental Hazard)	Potential Environmental Impact (risk)	L	C	Initial risk rating	Environmental management	L	C	Residual risk rating
	Changes to groundwater level and quality leading to contamination, changes in salinity, ASS	4	3	VH17	CSWQSP	2	3	H12
	Inappropriate disposal of spoil	5	3	VH18	CWRSP	3	2	M8
	Inappropriate disposal of contaminated groundwater	5	4	E23	CSWQSP	1	4	H14
Spoil transport, deliveries, general plant operation on public roads	Traffic impacts due to increased number of construction vehicles (heavy and light vehicles) and vehicle movements	5	2	M10	CTASP	4	2	M9
	Generation of dust due to material /waste/spoil loading and unloading; and generation of exhaust emissions due to inappropriate plant maintenance	5	2	M10	CAQSP	3	2	L8
	Tracking of mud or waste on public roads	4	2	M9	CAQSP CSWQSP	3	1	L3
	Noise and vibration impacts on receivers near construction site or along haul roads (during standard hours)	4	2	M9	CNVSP	3	2	L8
	Noise and vibration impacts on receivers near construction site or along haul roads (out of hours)	5	3	VH18	CNVSP	3	3	H13
	Haulage and deliveries being undertaken outside of approved hours leading to breach of CoA or EPL conditions	5	2	M10	CNVSP Spoil Management Plan	2	2	L7
Utilities Installation	Breach of PA or EPL conditions, legal or client requirements leading to PINs, fines, prosecution, loss of reputation, strained relationships, contractual implications	5	4	E23	CEMP and sub plans	3	3	H13
	Disturbance or damage of unidentified Aboriginal heritage artefact	1	4	H14	CCHSP	1	3	M11
	Disturbance or damage of non-Aboriginal heritage item	4	3	VH17	CCHSP	2	3	H12
	Clearing outside of approved area / beyond drawing requirements	5	2	M10	CFFSP	3	2	M8

Construction aspect (Significant Environmental Hazard)	Potential Environmental Impact (risk)	L	C	Initial risk rating	Environmental management	L	C	Residual risk rating
	Generation and mobilisation of dust impacting receivers including residents, businesses, vegetation and habitats	5	2	M10	CAQSP CSWQP	4	2	M9
	Noise and vibration impacts on nearby receivers, including out of hours impacts resulting in structural damage or community complaints	5	3	VH18	CNVSP	3	3	H13
	Traffic impacts due to increased number of construction vehicles (heavy and light vehicles) and vehicle movements	5	2	M10	CTASP	4	2	M9
	Serious incidents, e.g. uncontrolled release of concrete washout water, water treatment plant, major fuel spill, that cause or threaten material harm to the environment	4	4	VH20	CEMP CSWQSP	2	4	H15
	Erosion and sedimentation impacts on downstream waterways due to exposed land, inadequate controls or failure of controls	5	2	M10	CSWQSP	2	2	L7

Appendix B5: Auditing and Reporting

E1 Audit Schedule

Audit	Details	Timing	Responsibility	Recipient of audit report
Internal audit	Compliance with approval and legal requirements, Roads and Maritime specifications, CEMP and approvals	Annually (alternate 6 monthly to the audit below)	Environment and Sustainability Manager	CDS-JV WCX M5 AT Environmental Representative
External audit	Compliance with EMS (ISO 14001) in accordance with CPB Contractors requirements	Annually (alternate 6 monthly to the audit above)	External independent auditor	CDS-JV WCX M5 AT Environmental Representative
External audit	Compliance with the CEMP in accordance with D&C Deed	Not exceeding 5 months and 15 business days	WCX M5 AT External independent auditor	CDS-JV WCX M5 AT Independent Certifier Environmental Representative

E2 Compliance Reporting

Item	Details	Timing	Responsibility	Recipient of report
Compliance tracking program	Describes how PA will be met and sets out a program and frequency for compliance reporting and auditing	Development and implementation prior to construction	Environment and Sustainability Manager	NA (Requires DPE approval)
Pre-construction compliance audit	Status against PA before construction starts	Once, prior to commencement of construction	Environment and Sustainability Manager	DP&E; WCX M5 AT; Environmental Representative
Construction compliance audit	Status against PA during construction phase	Quarterly throughout construction	Environment and Sustainability Manager	DP&E; WCX M5 AT; Environmental Representative
Pre-operation compliance audit	Status against PA before operation starts	Once, prior to commencement of operation	Environment and Sustainability Manager	DP&E; WCX M5 AT; Environmental Representative

E3 Reporting Requirements

Report	Details	Frequency	Standard	Responsibility	Recipient of Report
Monthly environmental report	To be incorporated into the Project monthly report - to address environmental statistics (e.g. incidents, regulatory action, complaints on environmental issues), monitoring program performance, key environmental issues.	Monthly, by the 5th Business Day of each month	D&C Deed	Environment and Sustainability Manager	WCX M5 AT, Roads and Maritime Independent Certifier parent companies
Environmental Representative monthly report	Monthly report on the matters specified (ER's Project obligations) under the conditions of PA for the preceding month	Monthly within seven days for the end of each month for the duration of construction of the Project, or as otherwise agreed by the Secretary	PA	Environmental Representative	DP&E WCX M5 AT CDS-JV
EPL reporting	Details of any required monitoring, non-compliances with conditions of EPL	As detailed in the EPLs	CDS-JV EPLs	Environment and Sustainability Manager	EPA
EPL annual returns	Report on compliance with EPL	Annually	EPA annual return pro forma	Environment and Sustainability Manager	EPA

Appendix B6: Roads and Maritime Environmental Incident Classification and Reporting Procedure

Transport
Roads & Maritime
Services

Environmental Incident Classification and Reporting Procedure

September 2017

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About this release

Title	Environmental Incident Classification and Reporting Procedure

Approval		
Prepared by	Environment Manager Performance Improvement	Scott Machar
Reviewed by	Director Environment Operations	Sally Durham
Approved by	Director Environment	Michael Crowley

Document Control			
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Contents

Acronyms and definitions	
Acronym	**Definition**
DE	(Roads and Maritime Services) Director Environment
DEO	(Roads and Maritime Services) Director Environment Operations
DPE	Department of Planning and Environment
Environmental harm	Any act that degrades or pollutes the environment
EPA	NSW Environment Protection Authority
EP&A Act	*Environmental Planning and Assessment Act 1997*
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999*
EPL	Environment Protection Licence
POEO Act	*Protection of the Environment Operations Act 1997*
REF	Review of Environmental Factors
Roads and Maritime	NSW Roads and Maritime Services
SEQC	(Roads and Maritime Services) Safety Environment and Quality Co-ordinator
SEQO	(Roads and Maritime Services) Safety Environment and Quality Officer

1. Introduction

1.1 Aim

The Environmental Incident Classification and Reporting Procedure (the Procedure) aims to ensure Roads and Maritime Services workers and contractors understand how to classify, respond to and report environmental incidents that occur as a result of Roads and Maritime managed activities.

1.2 Objectives

The objectives of the Procedure are to:

- Ensure all relevant Roads and Maritime workers, managers and contractors are made aware of environmental incidents promptly and can respond accordingly
- Ensure site workers understand the immediate environmental incident reporting requirements
- Ensure all workers understand reporting timeframes, including statutory requirements
- Ensure incidents are reported to enable monitoring, sharing of lessons learnt and response to emerging environmental incident trends
- Comply with statutory obligations to report certain environmental incidents to regulators and other relevant government agencies (see section 5.1).

1.3 Scope and coverage

This Procedure is applicable to all Roads and Maritime activities where environmental incidents may occur. This includes (but is not limited to):

- Temporary activities, such as preliminary investigations (e.g. geotechnical and environmental surveys) and the construction and maintenance of Roads and Maritime assets
- Activities at Roads and Maritime properties and facilities
- Vessels operated by Maritime division
- Activities undertaken by contractors on behalf of Roads and Maritime.

The requirements of this Procedure must be communicated to all Roads and Maritime workers and contractors (e.g. during inductions) who are undertaking activities where incidents may occur.

The Procedure is for internal reporting processes, except where incidents are identified that need to be notified to regulators, and other relevant authorities (see section 5.1).

The procedure does NOT cover environmental incidents caused by:

- Operational road and traffic activities of the general public (e.g. vehicle accidents, fires caused by discarded cigarette butts)
- Boating accidents (except those involving Roads and Maritime vessels)
- Dumping of materials by members of the public on Roads and Maritime roadsides or land (except where hazardous materials are unexpectedly found during road construction or maintenance activities). Illegal dumping should be reported to the NSW Environment Protection Authority (EPA)
- Marine oil and chemical spills covered by the National Plan for Maritime Environmental Emergencies (Australian Maritime Safety Authority, 2014).

2. Environmental incident classification

There are three categories of environmental incidents, as detailed in Table 2.

Table 2: Environmental incident classification

Category	Description	Examples	
Category 1	Potential breaches of legislation or failures of process that result in actual off-site environmental harm, or residual on-site environmental harm or Works undertaken outside approved areas, without required approval or without environmental assessment or Any Material Harm pollution incident as defined by Part 5.7 of the *Protection of the Environment Operations Act 1997* (POEO Act).	Pollution Incidents	Discharge of waters from site not in accordance with any approval requirements (e.g. discharge criteria in an Review of Environmental Factors (REF) safeguard or Environment Protection Licence (EPL) condition)
			Pollution, or potential pollution, of waters
			Unmanaged vehicle tracking of materials or emissions of dust, offensive odours or noise beyond the site boundary that are not managed in accordance with approval requirements and/or might impact on nearby land users
			Pollution incidents that threaten harm to the health or safety of people (e.g. odours)
			Unauthorised or illegal disposal or transport of waste
			A spill or other incident that causes pollution to land
		Conservation Breaches	Unauthorised harm or damage to native flora and fauna (terrestrial or aquatic/marine)
			Unauthorised dredging or reclamation works within a watercourse
			A fire caused by Roads and Maritime activities that travels beyond the boundary causing or potentially causing harm to the environment or community
		Heritage Breaches	Unauthorised harm to Aboriginal objects and Aboriginal places
			Unauthorised damage to any State or locally significant relic or Heritage item, or item listed on the Roads and Maritime Section 170 register

Table 2: Environmental incident classification			
Category	**Description**	**Examples**	
		Planning and compliance breaches	Failure to comply with the requirements of: • The *Environmental Planning and Assessment Act 1997* (EP&A Act), including exempt activities, Part 5 determinations and Part 5.1 approvals • An *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) approval • An EPL • A CEMP or environmental work method statement • A permit from a regulator (e.g. under the *Fisheries Management Act 1994*)
Category 2	Failures of process or events that do not result in off-site environmental harm, or residual on-site environmental harm. These incidents may result in temporary on-site environmental harm that can be rectified to pre-existing conditions.	A procedural, administrative or technical breach of environmental requirements, including: • Failure to prepare or submit required documents, reports or other correspondence • Failure to comply with the requirements of: ○ The *Environmental Planning and Assessment Act 1997* (EP&A Act), including exempt activities, Part 5 determinations and Part 5.1 approvals ○ An *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) approval ○ An EPL ○ A CEMP or environmental work method statement ○ A permit from a regulator (e.g. under the *Fisheries Management Act 1994*).	
		Spills and discharges that do not leave a site boundary and are cleaned up without residual on-site environmental harm, and the area of temporary impact can be restored to pre-existing conditions	
		A fire that is contained on site and does not cause or potentially cause adverse impact to the environment or community	
Reportable Event	An event or unexpected find that occurs outside the scope of reasonable environmental controls and mitigation measures	Sediment or site water travelling beyond a site boundary, and where it can be demonstrated that: • Erosion and sediment controls were installed and maintained in accordance with an erosion and sediment control plan, and • The cause of the incident was reasonably unforeseen or the weather (rain, wind etc) event exceeded the design capacity of controls. Note these events are considered to have occurred (and the response should commence in accordance with Section 3) when sediment or site water first travels beyond the site boundary (e.g. when an appropriately sized and maintained sediment basin commences overtopping)	
		An unexpected archaeological find that is being managed in accordance with the "Roads and Maritime	

Table 2: Environmental incident classification		
Category	**Description**	**Examples**
		Standard Management Procedure - Unexpected Archaeological Finds"
		An unexpected threatened species find that is being managed in accordance with the "Roads and Maritime Biodiversity Guidelines – unexpected threatened species finds procedure"
		An unexpected find of contaminated soils, asbestos or other potentially hazardous substances during construction or maintenance works. Note that once a particular contaminant is identified or found for the first time (either during project planning or construction phases) it is then reasonably expected to be found, so additional finds need not be reported in this category.
Regulatory Action	Formal regulatory action from an environmental regulator (that has not already been reported in conjunction with another incident)	Formal regulatory action from an environmental regulator includes, but is not limited to: • Penalty infringement notices (PINs) • Clean up notices • Prevention notices • Official cautions / warnings • EPA show cause notifications.

Note: For any incident where there is associated formal regulatory action from an environmental regulator, copies of this correspondence must be forwarded to envops@rms.nsw.gov.au in addition to the Environmental Incident Report (see section 4).

3. Environmental incident response

3.1 Considerations and steps for environmental incident response

The step-by-step response for Category 1 incidents, Category 2 incidents and Reportable Events is detailed in Table 3.1a (activities undertaken by contractors) and Table 3.1b (activities undertaken by Roads and Maritime Regional Maintenance). However, some key points apply throughout all stages of the response to any environmental incident:

- If in doubt, treat all incidents as Category 1 to ensure reporting timeframes can be met
- Strong consideration should be given to notifying:
    - Roads and Maritime Corporate Communications for any incidents that have potential for community or media attention (see section 4.4)
    - Roads and Maritime Work Health and Safety Branch for any incidents that involve actual or potential risks to worker health and safety (see section 4.4).
- The person responsible for operational management of the site/activity shall assume responsibility for the response to the incident and direct actions as necessary and in accordance with this Procedure
- A Roads and Maritime Environment Manager can consult with the Director Environment Operations (DEO) to reclassify the category of an incident where appropriate.

Any Regulatory Action received (that has not already been reported in conjunction with another incident) should be immediately forwarded to the envops@rms.nsw.gov.au mailbox, and followed by an immediate phone call to the relevant Roads and Maritime Environment Manager, who will immediately advise the DEO. Consideration should then be given as to whether an environmental incident has occurred (see section 2) that should be reported in accordance with this section.

Table 3.1a: Environmental incident response – activities undertaken by contractors				
Step	**Action**	**Responsibility for completing action**	**Timeframe**	
			Category 1 Incidents	Category 2 Incidents / Reportable Events
1	Stop work in relevant area (if necessary) and take actions to prevent adverse impact to human health or the environment. Note human health and safety is the primary concern, and no action should be taken if it is not safe to do so.	Person who identifies incident	Immediate	Immediate
2	Advise the contractor site management team.	Person who identifies incident	Immediate	Immediate
3	Advise the Roads and Maritime project management team and the relevant Roads and Maritime Environment Manager.	Contractor	Immediate	Day of the incident
4	Consider if the incident is a pollution incident that constitutes Material Harm in accordance with Part 5.7 of the POEO Act. For Material Harm pollution incidents, notify relevant agencies (see section 5.2). Sites with an EPL should implement their Pollution Incident Response Management Plan.	Contractor	Immediate	Immediate
5	Advise DEO by phone. The DEO may request photographs and a brief summary of known information via email. The following Roads and Maritime managers should also be notified by phone as relevant: • Director Environment (Major Projects) • Director Environment (Motorways).	Roads and Maritime Environment Manager	Immediately following advice of the incident	N/A
6	Where relevant, notify incident to appropriate regulatory agency (see section 5.1). Note this does not refer to the requirement to notify Material Harm pollutions incidents (see Step 4).	Contractor	As required by legislation	As required by legislation
7	Complete the incident report form (see section 4.2), including sign-off from Roads and Maritime Project Manager, and submit to Roads and Maritime Environment Manager* (see sections 4.3 and 4.4).	Contractor	Within 3 business days of the incident	Within 3 business days of the incident
8	Sign and submit incident report form to envops@rms.nsw.gov.au.	Roads and Maritime Environment Manager	On the day of receipt of the form	On the day of receipt of the form
9	For Material Harm pollution incidents, provide a written report to each relevant authority (see section 5.2).	Contractor	Within 7 days of the incident	N/A
10	Undertake incident investigation (level of investigation to be appropriate to the severity of the incident) to determine root cause and any necessary corrective actions. Summarise findings in 'Incident Lessons Learnt' template and submit to Environment Manager for review.	Contractor	Within 1 month of incident	N/A
11	Submit final Incident Lessons Learnt to envops@rms.nsw.gov.au.	Roads and Maritime Environment Manager	Within 1 week of receipt	N/A
12	Consider the need for any required corrective actions to be addressed through a management system (e.g. corrective action request).	Roads and Maritime Environment Manager and project team	As appropriate	As appropriate

*Alternate workflow / signatory arrangements may be required for projects where a third party is involved (e.g. a delivery authority). These arrangements can be confirmed with the relevant Roads and Maritime Environment Manager.

Table 3.1b: Environmental incident response – activities undertaken by Regional Maintenance (including contractors or RMCC on behalf of Regional Maintenance)

Step	Action	Responsibility for completing action	Timeframe	
			Category 1 Incidents	Category 2 Incidents / Reportable Events
1	Stop work in relevant area (if necessary) and take actions to prevent adverse impact to human health or the environment. Note human health and safety is the primary concern, and no action should be taken if it is not safe to do so.	Person who identifies incident	Immediate	Immediate
2	Advise the Roads and Maritime site management team and the relevant Roads and Maritime Environment Manager and Safety Environment Quality Officer (SEQO) / Safety Environment Quality Co-ordinator (SEQC).	Person who identifies incident	Immediate	Immediate
3	Advise DEO by phone. The DEO may request photographs and a brief summary of known information via email. The relevant Regional Maintenance Manager must also be notified.	Environment Manager	Immediate	N/A
4	Consider if the incident is a pollution incident that constitutes Material Harm in accordance with Part 5.7 of the POEO Act. For Material Harm pollution incidents, notify relevant agencies (see section 5.2). Sites with an EPL should implement their Pollution Incident Response Management Plan.	DEO	Immediately following advice of the incident	N/A
5	Where relevant, notify incident to appropriate regulatory agency (see section 5.1). Note this does not refer to the requirement to notify Material Harm pollutions incidents (see Step 4).	Environment Manager	As required by legislation	As required by legislation
6	Complete the incident report form (see section 4.2), including sign-off from Roads and Maritime Project Manager, and submit to SEQC (see section 4.3).	Relevant Roads and Maritime site representative	Within 3 business days of the incident	Within 3 business days of the incident
7	SEQC to sign and submit incident report form to relevant Environment Manager (see section 4.4).	SEQC	On the day of receipt of the form	On the day of receipt of the form
8	Sign and submit incident report form to envops@rms.nsw.gov.au.	Environment Manager	On the day of receipt of the form	On the day of receipt of the form
9	For Material Harm pollution incidents, provide a written report to each relevant authority (see section 5.2).	DEO	Within 7 days of the incident	N/A
10	Undertake incident investigation (level of investigation to be appropriate to the severity of the incident) to determine root cause and any necessary corrective actions. Summarise findings in 'Incident Lessons Learnt' template and submit both to Environment Manager for review. Consider the need for any required corrective actions to be addressed through a management system (e.g. corrective action request).	SEQC	Within 1 month of incident	N/A
11	Submit final Incident Lessons Learnt to envops@rms.nsw.gov.au.	Roads and Maritime Environment Manager	Within 1 week of receipt	N/A

Copies of formal regulatory action from an environmental regulator (that has not already been reported in conjunction with another incident) must be forwarded to the relevant Roads and Maritime Environment Manager (and SEQC/SEQO for Regional Maintenance projects) and envops@rms.nsw.gov.au immediately upon receipt.

3.2 Critical incidents

Some Category 1 incidents require escalation so relevant members of the Roads and Maritime Executive are aware of the incident and ready to respond as necessary. Category 1 incidents will be deemed 'Critical Incidents' for escalation to the Executive when they have the potential for:

- Regulatory action (e.g. EPA Penalty Infringement Notice) and/or
- Reputational damage (e.g. media coverage) and/or
- Significant environmental harm.

Guiding factors that will be considered when determining whether there has been 'significant' environmental harm include:

- When there has been actual or potential harm to the health or safety of people or to the environment that is not trivial
- Actions required to prevent, mitigate or make good the actual or potential environmental harm are likely to exceed $10,000

When a potential 'Critical Incident' is reported, the DEO will immediately brief the Director Environment (DE) who will make a determination on whether it will be considered a 'Critical Incident'. The DE will then brief the Roads and Maritime Chief Executive and relevant Executive Director, as well as any other members of the Executive as appropriate. When the DE cannot be contacted, the DEO will make the determination and make the relevant Executive briefings.

4. Environmental incident reporting

4.1 Environmental incident report form

The Environmental Incident Report Form should be completed for Category 1 incidents, Category 2 incidents and Reportable Events, and is available on the Roads and Maritime website.

4.2 Completing the incident report form

All parts of the Incident Report Form must be completed in accordance with this procedure and following the instructions within the form. The Form (and any subsequent reports) must only include factual information. Speculation about the causes and outcomes of incidents are not to be included.

The Form must be signed by the following:

Signatory	Reason
The person making the report	The person witnessed the incident or has the most knowledge of the incident, and can provide sufficient factual information.
The Roads and Maritime Project Manager	To ensure all relevant Roads and Maritime parties can be made aware of the incident, and appropriate resources can be allocated and/or approved to respond to the incident. This also ensures the project management team are aware of any environmental performance trends if multiple incidents occur.
Safety Environment and Quality Co-ordinator (Roads and Maritime Regional Maintenance only)	To ensure Regional Maintenance management system staff are aware of the incident, and any necessary management system changes can be made once corrective actions and lessons learnt are finalised.
The relevant Roads and Maritime Environment Manager	Concurrence that the incident is adequately described, and the immediate actions and corrective actions are appropriate.

As noted in Table 3.1a, alternate signatory arrangements may be required for projects where a third party is involved (e.g. a delivery authority). These arrangements can be confirmed with the relevant Roads and Maritime Environment Manager.

4.3 Submitting the incident report form

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

Completed Incident Report Forms should be submitted by the Roads and Maritime Environment Manager to the Environment Operations mailbox:

- envops@rms.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 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.

4.4 Roads and Maritime contacts

The relevant Environment Manager for each region and Project Office is the first point of contact for enquiries relating to environmental incidents. Current contacts for all Roads and Maritime Environment Managers can be found on the Roads and Maritime website.

Environment Managers can also provide contact details for other relevant contacts during an incident, such as Communications or Work, Health and Safety.

The DEO oversees the application of this Procedure, and can be contacted in the absence of the relevant Environment Manager for Category 1 incidents:

- Phone - (02) 8843 3048

5. Regulatory agency notification

5.1 Notification of Material Harm pollution incidents

5.1.1 Definition of 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 (see section 5.1.3) 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.

5.1.2 Determining if an incident should be considered Material Harm

As soon as a person becomes aware of a pollution incident that has the potential to cause Material Harm, the Category 1 incident response should be followed (see Table 3.1a and Table 3.1b above). The determination on whether a pollution incident should be considered Material Harm should be made in accordance with Table 5.1.2.

Table 5.1.2: Determination of Material Harm pollution incidents

Project delivery	Material Harm determination
Activities undertaken by Regional Maintenance	The DEO should make the determination (and any associated notifications) on whether a pollution incident should be considered Material Harm. If the DEO is not available, the relevant Environment Manager should seek advice from other Roads and Maritime Environment Branch Directors, or make the material harm determination themselves. If no assistance can be obtained and it is suspected that a pollution incident should be considered Material Harm, the project should notify the relevant authorities in accordance with Table 5.1.3a or Table 5.1.3b (as relevant).
Activities undertaken by contractors	The contractor project team should make the determination (and any associated notifications) on whether a pollution incident should be considered Material Harm. The relevant Roads and Maritime Environment Manager or Environment Branch Director may contact the DEO 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 Roads and Maritime believes a pollution incident should be considered Material Harm but the contractor disagrees, Roads and Maritime is required by law to notify EPA and other relevant authorities. In this instance the DEO or DE would make a determination on whether the incident should be notified by Roads and Maritime as Material Harm. Roads and Maritime 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, Roads and Maritime and its contractors should always err on the side of notification.

When in doubt, communicate!

Note: Roads and Maritime is not responsible for notifying a Material Harm pollution incident caused by a traffic or vehicle accident where notification has already occurred by someone at the scene. However, if it is believed notification has not been undertaken, Roads and Maritime should undertake notification in accordance with section 5.1.3. Environment Branch can provide advice in this instance (see section 4.4).

5.1.3 Relevant authorities to notify

The relevant authorities that must be notified for a Material Harm pollution incident are listed in tables 5.1.3a and 5.1.3b 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 the two tables.

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 5.1.3a: 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 • Western Lands Commissioner for the Western Division (except any part of the Western Division within the area of a local council).	Local council - contact Office of Local Government on 4428 4100, or visit the Office of Local Government website Western Lands Commissioner – phone 6883 5400

Table 5.1.3b: 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	The Appropriate Regulatory Authority*, being either: • Local council • Western Lands Commissioner for the Western Division (except any part of the Western Division within the area of a local council).	Local council - contact Office of Local Government on 4428 4100, or visit the Office of Local Government website Western Lands Commissioner – phone 6883 5400
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	Fire and Rescue NSW	1300 729 579

* The appropriate contact for the Appropriate Regulatory Authority and Public Health Unit will vary according to the geographic location of the activity. These contact numbers should be found in advance and stored for immediate access (e.g. in a project's Construction Environmental Management Plan and/or on site notice boards) should a pollution incident need to be notified.

5.1.4 The relevant information to provide

It is important to avoid speculation on origin, causes or outcomes of a pollution incident in discussions with the authorities. 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 (see above). 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 EPL conditions or the Work Health and Safety Act 2011).

5.2 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 5.2. Additional requirements adopted by Roads and Maritime are indicated in *italics*. Any notification to regulatory agencies should be indicated in the Environmental Incident Report Form to confirm that any required notifications have been initiated.

Table 5.2: Regulatory agency notification requirements

Legislation / issue	Regulating authority	Section / requirement
Commonwealth Aboriginal and Torres Strait Islanders Heritage Protection Act 1984	Department of the Environment and Energy	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 Roads and Maritime activities have contaminated land or if Roads and Maritime owns land that has been contaminated.
Heritage Act 1977	Office of Environment and Heritage	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	Office of Environment and Heritage	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 Roads and Maritime 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.
Breach of Conditions of Approval (projects approved under Part 5.1 of the EP&A Act)	Department of Planning and Environment (DPE)	DPE should be notified by the project proponent when there has been a breach of a Condition of Approval (CoA). There may also be other notification requirements included in the CoA.
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.*

5.3 Requests for written reports from regulatory authorities (activities delivered internally by Roads and Maritime)

Should Roads and Maritime directly receive a request from a regulatory authority for a written report regarding an environmental incident, Environment Branch and Legal Branch 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. Environment Branch will coordinate with Legal Branch 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.

Appendix B7: Property Condition Claim Process

Property Condition Surveys

Properties located within 50 metres of construction or tunnelling work are offered a pre-construction property condition survey at no cost to the owner. Pre-construction ground and infrastructure condition surveys are undertaken with the agreement of the property owner and any occupier. Surveys must be carried out by an independent assessor, who is appropriately qualified and experienced for the specific element of ground or infrastructure being surveyed.

Property condition survey invitations are sent via mail – two letters, sent ten working days apart – and further contact is made via phone calls and/or door knocks with those who have not yet responded. Letters are sent by the Property team, phone calls and door knocks are conducted by the Community team.

CDS-JV receives a copy of the report within 5 days of the survey being conducted. Reports contain a written summary and high resolution digital still photos. Written reports provide an indicative assessment of the overall condition of the building, in particular noting any defects or observable problem areas, and are reviewed by an appropriately qualified structural engineer. The interior and exterior of the properties are digitally photographed using a high resolution digital camera. CDS-JV prepares a detailed record that, at a minimum, includes dated photographs of the pre-construction conditions of all the ground and infrastructure that may be affected, and summary descriptions of the pre-construction condition of the ground and infrastructure.

Property Damage Process

In the event a stakeholder contacts the project team regarding property damage the team will implement the Property Damage Claims Process (outlined in the figure below).

The damage will be investigated immediately and assessed. Remediation, compensation and/or repairs to any damage would take place within a reasonable timeframe, generally after the work in the area was completed, at a time suitable to the resident or property owner.

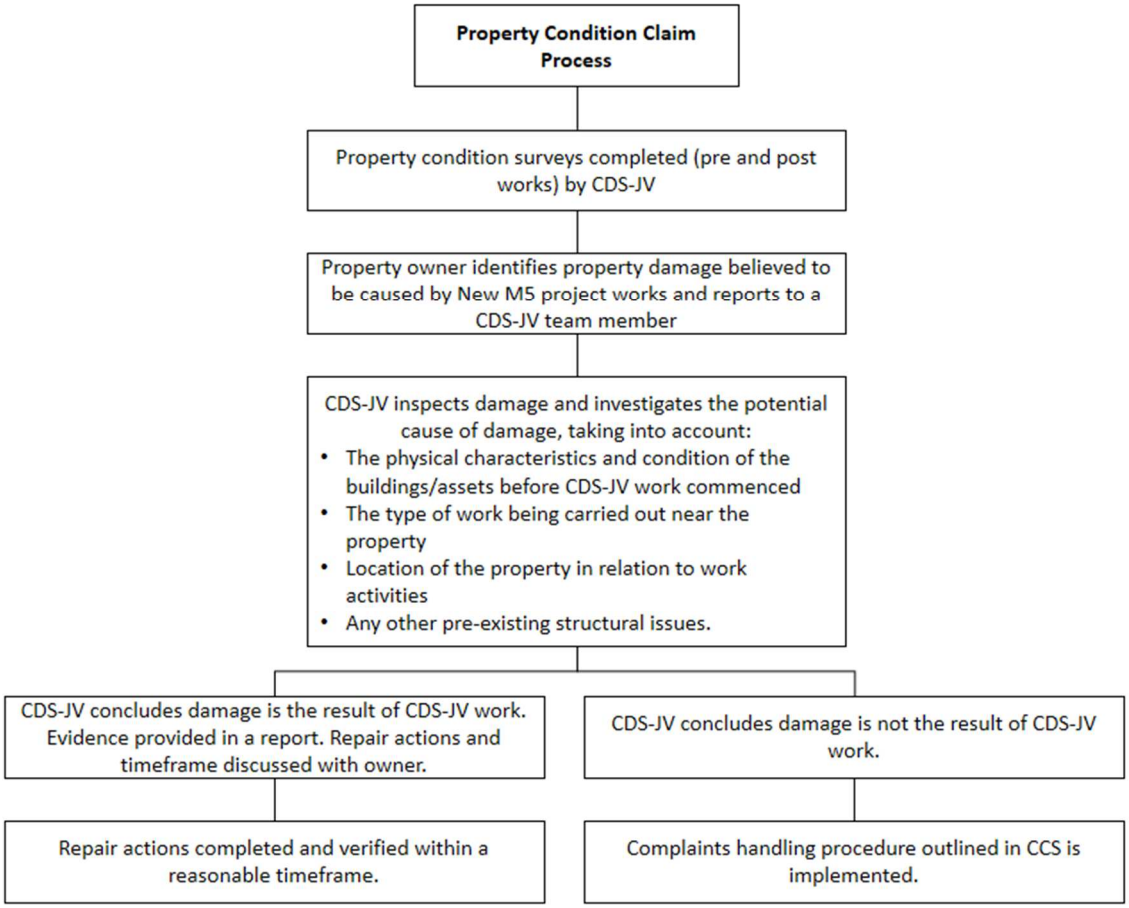

Figure B7: Property condition claim process

Appendix B8: CEMP approval limitations

The table below provides the restrictions and required updates applied to the CEMP and sub-plans by the respective letters of approval issued by the Department of Planning and Environment. A hold is placed on relevant activities as identified below. Where hold points apply, the relevant action to release the hold point / restriction is identified. The status column provides the current status against each required action and identifies where the issue is now closed.

Table B8: Limitations on CEMP and sub-plan approvals.

Document	Updates and/or hold points identified	Action required	Reference	Status
CEMP	Minor amendments required	Update CEMP with requested amendments and resubmit to DP&E	DP&E letter: Re. WestConnex New M5 Project, Infrastructure Approval (SSI 6788), Condition D68(a): Construction Environmental Management Plan, dated 4/08/2016, Attachment 1	Addressed by Revision 5 of the CEMP. Closed
CTASP	Minor amendments required	Update CTASP with requested amendments and resubmit to DP&E	DP&E letter: Re. WestConnex New M5 Project, Infrastructure Approval (SSI 6788), Condition D68(a): Construction Traffic and Access Management Plan, dated 26/07/2016, Attachment 1	Addressed by Revision 5 of the CTASP. Closed
	Additional consultation required	Updated CTAMP to be provided to Rockdale City Council and NSW Police for additional consultation for an agreed time frame. Any required amendments to the CTAMP to be provided in an update and resubmitted to DP&E.	DP&E letter: Re. WestConnex New M5 Project, Infrastructure Approval (SSI 6788), Condition D68(a): Construction Traffic and Access Management Plan, dated 26/07/2016	Additional consultation undertaken. No amendments were requested by Rockdale (Bayside) Council or NSW Police. Closed
CNVMP	Amendments required	Update CNVMP with requested amendments and resubmit to DP&E	DPE letter: Re. WestConnex New M5 (SSI 6788) – Construction Noise and Vibration Management Plan, dated 4/08/2016, Attachment A DP&E letter: WestConnex New M5 (SSI 6788) – Construction Noise and Vibration Management Plan, dated 18/08/2016, Attachment A	Addressed by Revision 19 of the CNVMP and superseded by DP&E approval letter dated 11/10/2016. Closed
	Approval to commence construction for Bexley tunnel sites (C4, C5, C6) and Arncliffe construction compound	Supply additional information regarding the layout of compounds at the St Peters Interchange	DPE letter: Re. WestConnex New M5 (SSI 6788) – Construction Noise and Vibration Management	Addressed by Revision 19 of the CNVMP and superseded by DP&E approval letter dated

Document	Updates and/or hold points identified	Action required	Reference	Status
	only. **Hold point**: Construction activities at compounds C1-C3 and C8-C14.	construction sites. Supply additional information regarding operational noise mitigation for all construction sites other than Bexley (ie C1-C3 and C7-C14)	Plan, dated 4/08/2016 DPE letter: WestConnex New M5 (SSI 6788) – Construction Noise and Vibration Management Plan, dated 18/08/2016	11/10/2016. Closed.
	Hold point: Out of hours works not permitted by an EPL or CoA D15	Supply additional information regarding out of hours works for all sites.	DPE letter: Re. WestConnex New M5 (SSI 6788) – Construction Noise and Vibration Management Plan, dated 4/08/2016 DPE letter: WestConnex New M5 (SSI 6788) – Construction Noise and Vibration Management Plan, dated 18/08/2016	Addressed by Revision 19 of the CNVMP and superseded by DP&E approval letter dated 11/10/2016. Closed
	Hold point: Commencement of long term high noise impact works at Bexley North construction compound (C4) that would have residual impact on receivers	Implement identified noise mitigation for long term high noise impact works with residual noise impacts on receivers.	DPE letter: Re. WestConnex New M5 (SSI 6788) – Construction Noise and Vibration Management Plan, dated 4/08/2016	Addressed by Revision 19 of the CNVMP and superseded by DP&E approval letter dated 11/10/2016. Closed
	Hold point: Commencement of tunnelling	Submit final details of vibration and ground borne noise impacts, identification of affected receivers and the process for verification of modelling of tunnel impacts	DPE letter: Re. WestConnex New M5 (SSI 6788) – Construction Noise and Vibration Management Plan, dated 4/08/2016 DPE letter: WestConnex New M5 (SSI 6788) – Construction Noise and Vibration Management Plan, dated 18/08/2016	Addressed by Revision 19 of the CNVMP and superseded by DP&E approval letter dated 11/10/2016. Closed
CHSP	Minor amendments required	Update CHSP with requested amendments and resubmit to DP&E	DPE letter: Re. WestConnex New M5 (SSI 6788) – Construction Heritage Management Plan, dated 2/08/2016, Attachment 1	Addressed by Revision 7 of the CHSP Closed
CFFSP	Minor amendments required	Update CFFSP with requested amendments and resubmit to DP&E	DPE letter: Re. WestConnex New M5 (SSI 6788) – Construction Flora and Fauna Sub-Plan (Condition D68(d)), dated 20/07/2016	Addressed by Revision 8 of the CFFSP Closed
	Impacts to Groundwater Dependent Ecosystems (GDEs)	Revise CFFSP with any relevant updates to potential impacts on GDEs and the	DPE letter: Re. WestConnex New M5 (SSI 6788) – Construction Flora and	No additional impacts to GDE's identified in the Hydrogeological

Document	Updates and/or hold points identified	Action required	Reference	Status
		necessary mitigation measures and monitoring requirements as identified in the Groundwater Modelling Report.	Fauna Sub-Plan (Condition D68(d)), dated 20/07/2016	Design Report (Groundwater Modelling Report). Should impacts be subsequently identified, the CFFSP will be updated. This is addressed in Section 4.6 of the CFFSP. Closed
	Hold point: Permanent landscaping works	Revise CFFSP with details regarding landscaping and rehabilitation consistent with the Urban Design and Landscape Plan, for the Secretary's consideration.	DPE letter: Re. WestConnex New M5 (SSI 6788) – Construction Flora and Fauna Sub-Plan (Condition D68(d)), dated 20/07/2016	UDLP still under preparation. Open
CAQSP	Minor amendments required	Update CAQSP with requested amendments	DPE letter: Re. WestConnex New M5 Project, Infrastructure Approval (SSI 6788), Condition D68(e): Construction Air Quality Sub-Plan, dated 4/07/2016	Addressed in Revision 5 Closed
CSWQSP	Additional consultation required	Provide the CSWQSP to Rockdale City Council and Georges River Council for further consultation. Revise the CSWQSP with any updates resulting from the additional consultation and submit the revised plan to DP&E.	DPE letter: Re. WestConnex New M5 (SSI 6788) – Construction Soil and Water Quality Sub-Plan (Condition D68(f)), dated 15/07/2016	CSWQSP (Rev 8) provided to Rockdale and Georges River Councils on 20/07/16. Comments received from Rockdale Council 27/07/16. No updates required. Closed
CWRSP	Minor amendments required	Update CWRSP with requested amendments	DPE letter: Re. WestConnex New M5 Project, Infrastructure Approval (SSI 6788), Condition D67(e)(iii): Construction Waste and Resource Sub-Plan, dated 15/07/2016	Addressed in Revision 6 of the CWRSP Closed

Appendix B9: Glossary of Terms

Term/acronym	Definition
AFMP	Construction Ancillary Facilities Management Plan
Blue Book	Managing Urban Stormwater: Soils and Construction Volume 1 (Landcom 2006)
BOP	Biodiversity Offset Package
BOS	Biodiversity Offset Strategy
CAQSP	Construction Air Quality Sub Plan
CCS	Community Communication Strategy; provides the mechanisms to facilitate communication with all stakeholders for the project
CDS-JV	CPB Contractors Dragados Samsung Joint Venture; CDS-JV has been engaged by the Project Company (WCX M5 AT) to design and construct the New M5 Project.
CEMP	Construction Environmental Management Plan – this document
Client	Project Company, WCX M5 AT
CLM Act	*Contaminated Lands Management Act 1997*
CoA	Conditions of Approval
Construction Area	A separable portion of work that is identified early in construction planning to help drive early definition of construction methodology and alignment of design activities. Work Areas should be listed in the overall construction methodology. The planning document for a work area is called a Construction Area Plan
Construction Area Plan (CAP)	The main document prepared during the construction planning for that work area. Includes construction methodology, risk assessment, constructability reviews and Work Pack listing
CCLMP	Construction Contaminated Land Management Plan
CFFSP	Construction Flora and Fauna Sub Plan
CHSP	Construction Heritage Sub Plan
CNVSP	Construction Noise and Vibration Management Plan
CSMP	Construction Spoil Management Plan
CSWQSP	Construction Soil and Water Quality Sub Plan
CTASP	Construction Traffic and Access Sub Plan
CTP	Compliance Tracking Program
D&C	Design and Construction
Deed	As appropriate to the defined scope of the WestConnex New Stage 2 New M5 D&C Deed
DP	Design Plan
DP&E	NSW Department of Planning & Environment

Term/acronym	Definition
DPI – Water	NSW Department of Primary Industries – Water (formerly NSW Office of Water, NoW)
EA	Environment Advisor
EIS	Environmental Impact Statement
EM	Environment and Sustainability Manager
EMM	Environmental management measure (proposed in the environmental impact statement)
EMS	Environmental Management System
Environmental aspect	Element of an organisation's activities, products or services that can interact with the environment
Environmental impact	Any change to the environment, whether adverse or beneficial, wholly or partially resulting from an organisation's activities, products or services
EP&A Act	*Environmental Planning and Assessment Act 1979*
EPA	NSW Environment Protection Authority
EPL	Environment Protection Licence
ER	Environmental Representative
ESCP	Erosion and Sediment Control Plan
EWMS	Environmental Work Method Statement – a component of the environmental management system that addresses environmental management issues relevant to a specific site and/or activity
FMS	Flood Mitigation Strategy
GGBF PoM	Green and Gold Bell Frog Plan of Management
IC	Independent Certifier
Incite Keystone	A web-based document management system that provides the primary document management application for CDS-JV on the Project and will be used to manage correspondence, design documentation, electronic distribution and approval processes, records and identified records and quality documentation.
Infrastructure Approval	Approval under the Environmental Planning & Assessment Act 1979 for SSI 6788 signed by the Minister for Planning on 20 April 2016
NSW	New South Wales
OEH	Office of Environment and Heritage
PA	Planning Approval signed by the Minister for Planning on 20 April 2016
PIRMP	Pollution Incident Response Management Plan
PMS	Project Management System
POEO Act	*Protection of the Environment Operations Act 1997*
Project	WestConnex Stage 2 New M5

Term/acronym	Definition
Project Company	WCX M5 AT
Project requirements	The Project requirements include all CoA (pursuant to Infrastructure Approval), REMMs, EMMs, SWTC and EPL.
REMM	Revised Environmental Management Measure (from the SPIR)
Roads and Maritime, RMS	Roads and Maritime Services, the proponent for the project (SSI 6788); Roads and Maritime has engaged the Project Company, WCX M5 AT to deliver the New M5 project.
SEP	Site Environmental Plan - A3 plans that provide a visual display (on a GIS aerial map) of environmental constraints, physical protection measures and other key management measures to minimise impacts from construction activities on the environment and community. Erosion and sediment controls measures will also be displayed on the SEP. The reverse side of the A3 plan identifies key controls specific to the construction area. Sep's also provide basic environmental management requirements in tabular form.
SP	Sustainability Plan
SPIR	Submission and Preferred Infrastructure Report
SSI	State Significant infrastructure
SWTC	As appropriate to the defined scope of the Scope of Works & Technical Criteria defined under the individual Stage 2 New M5 D&C Deed
Synergy	Synergy is a safety and environmental reporting application and consists of the following modules: • SHE Management – events including: incidents, near hits, report only, hazards, stakeholder contacts, regulatory visits, drug and alcohol positive tests • Metrics – work hours, number of people, environmental data such as materials, water, energy and wastes. Campaigns can be tailored to drive specific lead indicators. • Compliance – general applicability, typically used to track conditions and aid in reporting • Actions – Assign and track actions.
TSC Act	*Threatened Species Conservation Act 1995*
WCX	WestConnex
WCX M5 AT	Project Company; WCX M5 AT has been engaged by Roads and Maritime Services to deliver the New M5 project. WCX M5 AT has in turn, engaged the Contractor, CDS-JV to design and construct the New M5 project.
Work Pack	A pack of relevant construction documents that contains relevant information for Site Engineers and foremen to manage the works. There will be multiple Work Packs contained in a CAP. A Work Pack contains work method statements, risk assessments, ITPs, drawings, site instructions and environmental controls.
Work Procedure	A document that provides a detailed step-by-step description for how work activities will be carried out. May document Risks & Controls associated with each step