















Laing O'Rourke – Sydney Metro - Western Sydney Airport, Advanced and Enabling Works, Footbridge St Marys

Construction Environmental Management Plan

Document revision and history

Document details	
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Document revision history and signoff

Revision	Date	Revision description	Prepared	Reviewed	Approval
1	25/05/2023	Initial submission	 	 	
2	15/03/2024	WRS included and addressed comments by TfNSW, ER and SM			
3	18/09/2024	LOR 30/60/90 details added. WRS updated to reflect site water reuse & discharge process			
4	28/03/2025				

Distribution

The master-controlled plan will be held within Laing O'Rourke's document management system, where it can be accessed by personnel as necessary.

Issue, revision and re-issue

This plan has been prepared in accordance with the relevant requirements and it has been reviewed by the relevant discipline leader for use on the Sydney Metro Western Sydney Airport Advanced and Enabling works. This plan is to be submitted to the relevant authorities before the start of work on-site.

Revisions of this plan may be required throughout the duration of the contract to reflect changing circumstances or identified opportunities for improvement. Revisions will be proposed by the relevant personnel and reviewed, developed and finalised

Revisions of this plan must not reduce the scope or level of management control. Revisions may result from:

- a. Management review
- b. Changes to the standard system
- c. Internal or external audit
- d. Client's feedback or non-compliance reports
- e. Legislative changes
- f. Improvement initiatives and process changes within Laing O'Rourke
- g. Lessons learned.

This plan will be reviewed as necessary.

Initial updates to this plan will be issued alphabetically for review. Once approved by the client, subsequent updates will be numbered consecutively and transmitted to holders of controlled copies.

Updates to this plan and any other sub-plans will be provided to the client for comment, review and approval within five days of amendment. Amendments will be clearly illustrated in the document.

The nominated Environmental Representative is to have final approval for all amendments and revisions.

Terms and definitions

The following terms, abbreviations and definitions are used in this plan.

Terms and definitions

Term	Definition
ACHAR	Aboriginal Cultural Heritage Assessment Report
ACM	Asbestos-Containing Material
ACHMP	Aboriginal Cultural Heritage Management Plan
AEC	Area of Environmental Concern
AEW	Advanced and Enabling Works
AMMs	Additional Mitigation Measures
ARD	Archaeological Research Design
CARs	Corrective Action Requests
CEMF	Construction Environmental Management Framework
CEMP	Construction Environmental Management Plan
CLMP	Community Liaison Management Plan
CNVMP	Construction Noise and Vibration Management Plan
CoA	Conditions of Approval
CoPC	Contaminants of Potential Concern
CRAW	Construction Risk Assessment Workshop
CSSI	Critical State Significant Infrastructure
CNVS	Construction Noise and Vibration Standard
CTMF	Construction Traffic Management Framework
CTMP	Construction Traffic Management Plan
DPHI	NSW Department of Planning, Housing Infrastructure
DPI Fisheries	NSW Department of Primary Industries - Fisheries
DNVIS	Detailed Noise and Vibration Impact Statement
ECM	Environmental Control Map
EIA	Environmental Impact Assessment
EES	NSW Department of Environment, Energy and Science
EPA	NSW Environment Protection Authority
EPL	Environment Protection Licence
ER	Independent Environmental Representative (Nominated by DPHI)
ERAP	Environmental Risk Action Procedures
EWMS	Environment Work Method Statement
FSM	Footbridge St Marys (The Project)
GIS	Geographic Information System

Term	Definition
HSE	Health Safety and Environment
HSEMS	Health Safety and Environmental Management System
IBC	Intermediate Bulk Container
ICNG	Interim Construction Noise Guidelines
ICT	Information Communication Technology
INTELEX	Laing O'Rourke's health, safety and environment incident reporting tool
IS	Infrastructure Sustainability
ITPs	Inspection Test Plans
JHA	Job Hazard Analysis
JSEA	Job Safety Environmental Analysis
LORAC	Laing O'Rourke Australia Construction
MCoA	Ministers Conditions of Approval
MTS	Material Tracking System
NATA	National Association of Testing Authorities
NML	Noise Management Level
NOP	Non-Owner Participant
NSW	New South Wales
OCCS	Overarching Community Consultation Strategy
OOHW	Out-of-Hours Works
PCBs	Polychlorinated Biphenyls
PFAS	Per- and Polyfluoroalkyl Substances
PPE	Personal Protective Equipment
Planning Secretary	The Secretary of the NSW Department of Planning and Environment
POEO Act	<i>Protection of Environment and Operations Act 1997</i>
Principal	Sydney Metro WSA
PUDCLP	Place, Urban Design and Corridor Landscape plan
RDO	Rostered Day Off
RPO	Revised Performance Outcomes
REMMs	Revised Environmental Mitigation Measures
SDS	Safety Data Sheet
SEPP	State Environmental Planning Policies
SER	Severe Environmental Risk
SES	NSW State Emergency Service
SMP	Sustainability Management Plan

Term	Definition
SM-WSA	Sydney Metro - Western Sydney Airport
SSTOM	Stations, Systems, Trains and Operations and Maintenance
SWMS	Safe Work Method Statement
TfNSW	Transport for New South Wales
TSR	Transport for New South Wales Standard Requirements
TSS	Total Suspended Solids
TTLG	Traffic and Transport Liaison Group
VC	Vibration Curve
VOC	Verification of Competency
WIRES	Wildlife Rescue and Emergency Services
WFDIP	Workforce Development and Industry Participation Plan
WSA	Western Sydney Airport
WQO	New South Wales Water Quality Objectives

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Compliance Matrix – CEMP Requirements

Condition	Requirement	Reference
CEMF 3.4 (a)	Sydney Metro will develop the Construction Environmental Management Plans (CEMPs) for the on-airport construction of the rail. These on-airport CEMPs will be developed in consultation with WSA and be consistent with existing WSA CEMPs. Figure 2 displays the relationship between the planning documentation and the environmental documentation required for SMWSA.	Not Applicable for Off-airport works
CEMF 3.4 (b)	Sydney Metro will submit the on-airport CEMPs to the Commonwealth for approval. The approved SMWSA on-airport CEMPs will be implemented for all on-airport rail construction works and inform the Principal Contractor's environmental documentation where working on the airport site.	Not Applicable for Off-airport works
CEMF 3.4 (c)	Principal Contractors are required to prepare and implement a Construction Environmental Management Plan (CEMP) relevant to the scale and nature of their off-airport scope of works. The CEMP shall comprise of a main CEMP document, issue specific sub plans, activity specific procedures and site-based control maps. The CEMP shall illustrate the relationship between other plans required by the contract, in particular those that relate to design management. The CEMP will address the specific requirements of scope of works and address the off-airport environmental requirements.	LORAC - Sydney Metro WSA Advanced and Enabling Works – FSM CEMP
CEMF 3.4 (d)	Depending on the scope and scale of the works, Sydney Metro may decide to streamline the CEMP and sub-plan requirements for off-airport works. For example, depending on the risk associated with particular environmental issues it may be appropriate to remove the need for a sub plan, or replace with a procedure as part of the CEMP. The CEMP and sub-plan requirements from this CEMP for each construction stage / contract will be detailed in the Staging Report / Construction (Rail) Plan for the project.	No CEMP subplans to be developed. All relevant information within the CEMP document and procedures.
CEMF 3.4 (e)	Environmental documentation prepared for works within the on-airport site will be in accordance with the approved SMWSA on-airport CEMPs.	Not Applicable for Off-airport works.
CEMF 3.4 (f)	The Principal Contractor CEMP will cover the requirements of the relevant planning approval documentation, the conditions of all other permits and licences, the Principal Contractor's corporate EMS, the environmental provisions of the contract documentation and this Construction Environmental Management Framework.	LORAC - Sydney Metro WSA Advanced and Enabling Works – Footbridge St Marys CEMP.
CEMF 3.4 (g)	As a minimum the principal contractor CEMP will:	Section 4 of the CEMP: Environmental and Energy Policy
	i. Include a contract specific environmental policy,	
	ii. Include a description of activities to be undertaken during construction	Section 1.2 of the CEMP: Project Description
	iii. For each plan under the CEMP include a matrix of the relevant SSI Conditions of Approval referencing where each requirement is addressed	Attachment O of the CEMP: Compliance Tracking Matrix

Condition	Requirement	Reference
	iv. For each plan under the CEMP, set objectives and targets, and identify measurable key performance indicators in relation to these	Section 7 of the CEMP: Objectives and Targets
	v. For each role that has environmental accountabilities or responsibilities, including key personnel, provide a tabulated description of the authority and roles of key personnel, lines of responsibility and communication, minimum skill level requirements and their interface with the overall project organisation structure	Section 3 of the CEMP: Roles and Responsibilities
	vi. Assign the responsibility for the implementation of the CEMP to the Environment Manager, who will have appropriate experience. The Principal Contractor's Project Director will be accountable for the implementation of the CEMP	Section 3 of the CEMP: Roles and Responsibilities – Environmental Manager
	vii. Identify communication requirements, including liaison with stakeholders and the community	Section 5 of the CEMP: Environmental and Energy Policy Section 17.5 of the CEMP: Communication
	viii. Include induction and training requirements and a summary of the Training Needs Analysis required in Section 3.11(b)	Section 11 of the CEMP: Training, Awareness and Competence
	ix. Management strategies for environmental compliance and review of the performance of environmental controls	Section 16 of the CEMP: Review and Approvals
	x. Procedures for environmental inspections and monitoring, auditing and review, and reporting on environmental performance including environmental compliance tracking	Section 17 of the CEMP: Monitoring, Measurement and Reporting and Section 15 of the CEMP: Audit
	xi. Include an annual schedule for auditing the CEMP and Sub-Plans that is updated at least monthly	Section 15 of the CEMP: Audit
	xii. Include procedures for emergency and incident management, non-compliance management, and corrective and preventative action; and	Section 13 of the CEMP: Emergency Preparedness and Response. Section 17.4 of the CEMP: Incidents, complaints, corrective and preventative action. Attachment A of the CEMP: Incident Management Flowchart. Section 17.3.1 of the CEMP: Non-compliances and corrective actions
	xiii. Include procedures for the control of environmental records	Section 14 of the CEMP: Records
CEMF 3.4 (h)	The Principal Contractor CEMP and associated sub-plans will be reviewed by Sydney Metro prior to any construction works commencing. For off-airport works approved under the CSSI, the independent environmental representative (see Section 3.13) will also review the CEMP.	Noted

Condition	Requirement	Reference
CEMF 3.4 (i)	Where a corresponding systems document exists within the Sydney Metro Integrated Management System, the Principal Contractor's procedures will be required to be consistent with any requirements in those documents.	Noted
CEMF 3.5 (a)	<p>Subject to Section 3.4(b) the Principal Contractors will prepare issue-specific environmental sub plans to the CEMP which address each of the relevant environmental impacts at a particular site or stage of the project. Issue specific sub plans will include as a minimum:</p> <ul style="list-style-type: none"> i. Spoil management; ii. Groundwater management; iii. Traffic and transport management; iv. Noise and vibration management; v. Heritage management; vi. Flora and fauna management; vii. Visual amenity management; viii. Soil and water management; ix. Air quality management; and x. Waste management. <p>Some of these sub plans may also be informed by other environmental management documents included in the planning approval, for example the Construction Traffic Management Framework or Construction Noise and Vibration Standard.</p>	Attachment E - ERAPs
MCoA C1	Construction Environmental Management Plans (CEMPs) and CEMP Sub-plans must be prepared in accordance with the Construction Environmental Management Framework (CEMF) included in the documents listed in Condition A1 to detail how the performance outcomes, commitments and mitigation measures specified in the documents listed in Condition A1 will be implemented and achieved during construction.	Section 1.4 of the CEMP: Scope of the Plan
MCoA C2	<p>With the exception of any CEMPs expressly nominated by the Planning Secretary to be endorsed by the ER, all CEMPs must be submitted to the Planning Secretary for approval.</p> <p><i>Note. The Planning Secretary will consider the assessment of the predicted level of environmental risk and potential level of community concern required under Condition A11(e) when deciding whether any CEMP's may be endorsed by the ER.</i></p>	Sydney Metro WSA Staging Report Table 4-3 states that this AEW CEMP is not required to be submitted to DPHI, and that the ER would endorse..
MCoA C3	The CEMP(s) not requiring the Planning Secretary's approval must be submitted to the ER for endorsement no later than one (1) month before the commencement of construction or where construction is staged no later than one (1) month before the commencement of that stage. That CEMP must obtain the endorsement of the ER as being consistent with the conditions of this approval and all undertakings made in the documents listed in Condition A1.	This CEMP would be implement in accordance with Section 3: Roles and Responsibilities

Condition	Requirement	Reference
MCoA C4	Any CEMP to be approved by the Planning Secretary must be endorsed by the ER and then submitted to the Planning Secretary for approval no later than one (1) month before the commencement of construction or where construction is staged no later than one (1) month before the commencement of that stage.	Section 3: Roles and Responsibilities
MCoA C5	<p>Of the CEMP Sub-plans required under Condition C1, the following CEMP Sub-plans must be prepared in consultation with the relevant government agencies identified for each CEMP Sub-plan. Details of issues raised by a government agency during consultation (as required by Condition A6) must be provided with the relevant CEMP Sub-plan when submitted to the Planning Secretary / ER (whichever is applicable). Where a government agency(ies) request(s) is not included, the Proponent must provide the Planning Secretary / ER (whichever is applicable) justification as to why.</p> <p>Required CEMP Sub-Plan Relevant government agencies to be consulted for each CEMP Sub-plan</p> <ul style="list-style-type: none"> (a) Noise and vibration Relevant Councils and WaterNSW (in relation to its assets) (b) Flora and fauna DPE EES, DPI Fisheries, and Relevant Councils (c) Soil and water DPI Fisheries, and Relevant Councils (d) Non-Aboriginal heritage Relevant Councils, WaterNSW and Heritage NSW <p>Note: CEMP Sub-plan(s) may reflect the construction of the project through geographical activities, temporal activities or activity based staging.</p>	<p>No CEMP subplans to be developed for the FSM scope in accordance with the Sydney Metro WSA Staging Report.</p> <p>The Staging Report Section 4.3.3, Section 4.3.4 and Appendix B outlines that the CEMP will cover environmental aspects without need for separate CEMP subplans.</p> <p>Requirements for Noise and Vibration are addressed in the ERAPs and have been informed by the Heritage Management Procedure and DNVIS in Attachments Q and R respectively</p>
MCoA C6	<p>The CEMP Sub-plans must state how:</p> <ul style="list-style-type: none"> (a) the environmental performance outcomes identified in the documents listed in Condition A1 will be achieved; (b) the mitigation measures identified in the documents listed in Condition A1 will be implemented; (c) the relevant terms of this approval will be complied with; and (d) issues requiring management during construction (including cumulative impacts), as identified through ongoing environmental risk analysis, will be managed through SMART principles. 	<p>No CEMP subplans to be developed for the FSM scope.</p> <p>The Sydney Metro WSA Staging Report Section 4.3.3, Section 4.3.4 and Appendix B outlines that the CEMP will cover environmental aspects without need for separate CEMP subplans.</p>
MCoA C7	With the exception of any CEMP Sub-plans expressly nominated by the Planning Secretary to be endorsed by the ER, all CEMP Sub-plans must be submitted to the Planning Secretary for approval.	<p>No CEMP subplans to be developed for the FSM scope.</p> <p>The Sydney Metro WSA Staging Report Section 4.3.3, Section 4.3.4 and Appendix B outlines that the CEMP will cover environmental aspects without need for separate CEMP subplans.</p>

Condition	Requirement	Reference
MCoA C8	The CEMP Sub-plans not requiring the Planning Secretary's approval must obtain the endorsement of the ER as being in accordance with the conditions of approval and all relevant undertakings made in the documents listed in Condition A1. Any of these CEMP Sub-plans must be submitted to the ER with, or subsequent to, the submission of the CEMP but in any event, no later than one (1) month before construction or where construction is staged no later than one (1) month before the commencement of that stage.	No CEMP subplans to be developed for the FSM scope. The Sydney Metro WSA Staging Report Section 4.3.3, Section 4.3.4 and Appendix B outlines that the CEMP will cover environmental aspects without need for separate CEMP subplans.
MCoA C9	Any of the CEMP Sub-plans to be approved by the Planning Secretary must be submitted to the Planning Secretary with, or subsequent to, the submission of the CEMP but in any event, no later than one (1) month before construction or where construction is staged no later than one (1) month before the commencement of that stage.	No CEMP subplans to be developed for the FSM scope. The Sydney Metro WSA Staging Report Section 4.3.3, Section 4.3.4 and Appendix B outlines that the CEMP will cover environmental aspects without need for separate CEMP subplans.
MCoA C10	Construction must not commence until the CEMP and all CEMP Sub-plans have been approved by the Planning Secretary or endorsed by the ER (whichever is applicable), unless otherwise agreed by the Planning Secretary. The CEMP and CEMP Sub-plans, as approved by the Planning Secretary or endorsed by the ER (whichever is applicable), including any minor amendments approved by the ER, must be implemented for the duration of construction.	Section 3: Roles and Responsibilities. Construction will not commence until the CEMP is endorsed by the ER. The CEMP as endorsed by the ER will be implemented for the duration of construction.
MCoA C11	In addition to the relevant requirements of the CEMF, the Flora and Fauna CEMP Sub-plan must include but not be limited to: (a) details of how the requirements of Conditions E11 will be met; (b) details of a dewatering plan of farm dams including: (i) supervision of dewatering by a suitably qualified ecologist; (ii) a methodology for the transfer of native fauna species known to inhabit and/or use the dam; (iii) the location and suitability of the proposed relocation sites; and (iv) any potential impacts of relocating the fauna to the relocation sites; (c) protocols for incidental finds of threatened species and ecological communities within the construction boundary.	No CEMP subplans to be developed for the FSM scope. The Sydney Metro WSA Staging Report Section 4.3.3, Section 4.3.4 and Appendix B outlines that the CEMP will cover environmental aspects without need for separate CEMP subplans.
MCoA C12	In addition to the relevant requirements of the CEMF, the Soil and Water CEMP Sub-Plan must include but not be limited to: a) details how the requirements of Conditions E127, E128 and E129 will be met; and b) the unexpected contaminated finds protocol required by Condition E98.	Attachment E of the CEMP: ERAPs - Soil and Water Quality
MCoA C13	The following Construction Monitoring Programs must be prepared in consultation with the relevant government agencies (as required by Condition A6) identified for each to compare	Relevant environmental monitoring information to manage relatively low risk of FSM works included

Condition	Requirement	Reference															
	<p>actual performance of construction of the CSSI against the performance predicted in the documents listed in Condition A1 or in the CEMP. Where a government agency(ies) request(s) is not included, the Proponent must provide the Planning Secretary / ER (whichever is applicable) justification as to why.</p> <table border="1"> <tr> <th></th><th>Required Construction Monitoring Program</th><th>Relevant government agencies to be consulted for each Construction Monitoring Program</th></tr> <tr> <td>(a)</td><td>Noise and vibration</td><td>Relevant Councils and WaterNSW (in relation to its assets)</td></tr> <tr> <td>(b)</td><td>Surface water quality</td><td>DPE Water, DPI Fisheries, and Relevant Councils</td></tr> <tr> <td>(c)</td><td>Groundwater</td><td>DPE Water</td></tr> <tr> <td>(d)</td><td>Air quality</td><td>Relevant Councils</td></tr> </table>		Required Construction Monitoring Program	Relevant government agencies to be consulted for each Construction Monitoring Program	(a)	Noise and vibration	Relevant Councils and WaterNSW (in relation to its assets)	(b)	Surface water quality	DPE Water, DPI Fisheries, and Relevant Councils	(c)	Groundwater	DPE Water	(d)	Air quality	Relevant Councils	<p>within the CEMP and attached ERAPs (attachment E).</p> <p>The residual risk ranking of Noise and vibration have been classified as medium risk in the WSA Staging Report Risk Assessment, Heritage has also been classified as medium risk in a subsequent risk assessment.</p>
	Required Construction Monitoring Program	Relevant government agencies to be consulted for each Construction Monitoring Program															
(a)	Noise and vibration	Relevant Councils and WaterNSW (in relation to its assets)															
(b)	Surface water quality	DPE Water, DPI Fisheries, and Relevant Councils															
(c)	Groundwater	DPE Water															
(d)	Air quality	Relevant Councils															
MCoA C14	<p>Each Construction Monitoring Program must provide:</p> <ul style="list-style-type: none"> (a) details of baseline data available including the period of baseline monitoring; (b) details of baseline data to be obtained and when; (c) details of all monitoring of the project to be undertaken; (d) the parameters of the project to be monitored; (e) the frequency of monitoring to be undertaken; (f) the location of monitoring; (g) the reporting of monitoring results and analysis results against relevant criteria; (h) details of the methods that will be used to analyse the monitoring data; (i) procedures to identify and implement additional mitigation measures where the results of the monitoring indicated unacceptable project impacts; (j) a consideration of SMART principles; (k) any consultation to be undertaken in relation to the monitoring programs; and (l) any specific requirements as required by Conditions C15 to C16. 	<p>Relevant environmental monitoring information to manage relatively low risk of FSM works included within the CEMP and attached ERAPs (Attachment E).</p>															
MCoA C15	<p>The Noise and Vibration Construction Monitoring Program must include:</p> <ul style="list-style-type: none"> (a) noise and vibration monitoring at representative residential and other locations (including at the worst- affected residences), subject to property owner approval, to confirm construction noise and vibration levels; 	<p>Relevant environmental monitoring information to manage relatively low risk of FSM works included within the CEMP and attached ERAPs (Attachment E).</p>															

Condition	Requirement	Reference
	<p>(b) monitoring undertaken during the day, evening and night-time periods throughout the construction period and cover the range of activities being undertaken;</p> <p>(c) method and frequency for reporting monitoring results; and</p> <p>(d) a process to undertake real time noise and vibration monitoring.</p> <p>The results of the monitoring must be readily available to the construction team, the Proponent and ER. The Planning Secretary and EPA must be provided with access to the results on request.</p>	<p>In addition to the LORAC CEMP, noise and vibration monitoring will be undertaken in accordance with the Sydney Metro Out of Hours Works Protocol and Sydney Metro Construction Noise and Vibration Strategy (v4).</p>
MCoA C16	<p>Groundwater Construction Monitoring Program must include:</p> <p>(a) groundwater monitoring networks at each construction excavation site predicted to intercept groundwater in the documents listed in Condition A1;</p> <p>(b) detail of the location of all monitoring bores with nested sites to monitor both shallow and deep groundwater levels and quality;</p> <p>(c) define the location of saltwater interception monitoring where sentinel groundwater monitoring bores will be installed between the saline sources and that of each construction excavation site predicted to intercept groundwater in the documents listed in Condition A1;</p> <p>(d) results from existing monitoring bores;</p> <p>(e) monitoring and gauging of groundwater inflow to the excavations predicted to intercept groundwater in the documents listed in Condition A1, appropriate trigger action response plan for all predicted groundwater impacts upon each noted neighbouring groundwater system component for each excavation construction site;</p> <p>(f) trigger levels for groundwater quality, salinity and groundwater drawdown in monitoring bores and / or other groundwater users;</p> <p>(g) daily measurement of the amount of water discharged from the water treatment plants;</p> <p>(h) water quality testing of the water discharged from treatment plants;</p> <p>(i) management and mitigation measures and criteria, including measures to address impacts on groundwater dependent ecosystems;</p> <p>(j) groundwater inflow to the excavations to enable a full accounting of the groundwater take from the Sydney Basin Central Groundwater Source;</p> <p>(k) reporting of groundwater gauging at excavations, groundwater monitoring, groundwater trigger events and action responses; and</p> <p>(l) methods for providing the data collected to Sydney Water where discharges are directed to their assets.</p>	<p>No impacts to groundwater anticipated.</p> <p>Relevant environmental monitoring information to manage relatively low risk of FSM works included within the CEMP and attached ERAPs (Attachment E).</p>
MCoA C17	<p>With the exception of any Construction Monitoring Programs expressly nominated by the Planning Secretary to be endorsed by the ER, all Construction Monitoring Programs must be submitted to the Planning Secretary for approval.</p>	<p>As per the WSA Staging Report, relevant environmental monitoring information to is included within the CEMP and attached ERAPs</p>

Condition	Requirement	Reference
		(Attachment E). The CEMP is endorsed by the ER and does not need to be submitted to DPE
MCoA C18	The Construction Monitoring Programs not requiring the Planning Secretary's approval must obtain the endorsement of the ER as being in accordance with the conditions of approval and all undertakings made in the documents listed in Condition A1. Any of these Construction Monitoring Programs must be submitted to the ER for endorsement at least one (1) month before the commencement of construction or where construction is staged no later than one (1) month before the commencement of that stage	Relevant environmental monitoring information to manage relatively low risk of FSM works included within the CEMP and attached ERAPs (Attachment E).
MCoA C19	Any of the Construction Monitoring Programs which require Planning Secretary approval must be endorsed by the ER and then submitted to the Planning Secretary for approval at least one (1) month before the commencement of construction or where construction is staged no later than one (1) month before the commencement of that stage.	Noted. As per the WSA Staging Report, a Construction Monitoring Program is not required. It is not anticipated that any FSM works monitoring requirements in the ERAPs will require approval by the Planning Secretary.
MCoA C20	Unless otherwise agreed with the Planning Secretary, construction must not commence until the Planning Secretary has approved, or the ER has endorsed (whichever is applicable), all of the required Construction Monitoring Programs and all relevant baseline data for the specific construction activity has been collected.	Noted. It is not anticipated that any FSM works monitoring requirements will require approval by the Planning Secretary.
MCoA C21	The Construction Monitoring Programs, as approved by the Planning Secretary or the ER has endorsed (whichever is applicable), including any minor amendments approved by the ER, must be implemented for the duration of construction and for any longer period set out in the monitoring program or specified by the Planning Secretary or the ER (whichever is applicable), whichever is the greater.	Noted. It is not anticipated that any FSM works monitoring requirements will require approval by the Planning Secretary.
MCoA C22	The results of the Construction Monitoring Programs must be submitted to the Planning Secretary, ER and relevant regulatory agencies, for information in the form of a Construction Monitoring Report at the frequency identified in the relevant Construction Monitoring Program Note: Where a relevant CEMP Sub-plan exists, the relevant Construction Monitoring Program may be incorporated into that CEMP Sub-plan.	Noted. As per the WSA Staging Report, a Construction Monitoring Program is not required. Environmental monitoring information will be made available to TfNSW, the ER, and the Planning Secretary and relevant regulatory agencies as requested.
Staging Report Table 4-1 CEMP Requirements: AEW – Footbridge St Marys	Spoil: CEMP Sub-Plan	Not applicable (as per WSA Staging Report)
	Groundwater: CEMP sub-plan and monitoring program	Not applicable (as per WSA Staging Report)
	Noise & Vibration: CEMP sub-plan and monitoring program	ERAPs - Noise and Vibration DNVIS (Attachment R)

Condition	Requirement	Reference
	Non-aboriginal heritage: CEMP Sub-plan	Attachment Q – Heritage Management Procedure
	Aboriginal Cultural Heritage Management Plan: Implement approved/updated ACHMP in accordance with CoA	Attachment Q – Heritage Management Procedure
	Flora & Fauna / Biodiversity: CEMP Sub-Plan	ERAPs – Tree Protection & Biodiversity
	Visual Amenity: CEMP Sub-Plan	ERAPs – Visual Amenity
	Carbon & Energy: CEMP Sub-Plan	Not applicable (as per staging report)
	Materials: CEMP Sub-Plan	Not applicable (as per staging report)
	Soil and Water: CEMP Sub-Plan	ERAPs – Soil and Water Quality
	Air Quality: CEMP Sub-Plan	ERAPs – Air Quality and Dust Management
	Waste (and Recycling) CEMP Sub-Plan	ERAPs – Waste and Resource Management
	Bushfire Management Plan: CEMP Sub-Plan	Not Applicable (as per staging report)
	Cumulative Construction Impacts Plan: CEMP Sub-plan	Not Applicable (as per staging report)
	Workforce Development Plan: WFDIP Plan	LORAC WFDIP Plan

1.0 Introduction

1.1 Context

The SM-WSA was deemed Critical State Significant Infrastructure and was approved for construction on 23 July 2021 by the Minister for Planning and Public Spaces (Application no: CSSI 10051). The Project is undertaken in accordance with this Approval.

In accordance with the Staging Report for the SM-WSA, Advanced Enabling Works (AEW) for the Footbridge St Marys project are required to establish key construction sites and facilitate construction activities. The Project is included within the Staging Report as AEW – Footbridge St Marys.

This Construction Environmental Management Plan (CEMP) and the associated Environmental Risk Action Procedures ERAPs described in section in the attached appendices forms an integral part of Laing O'Rourke's project management system that will be used to deliver the following Project:

- a. Sydney Metro WSA Enabling Works – Footbridge St Marys

1.2 Background and Project Description

Sydney Metro projects are being delivered to improve the safety, efficiency and reliability of Sydney's train network and aims to improve connectivity across the city. Sydney Metro – Western Sydney Airport project will deliver about 23 kilometres of rail line between St Marys Station and the Western Sydney Aerotropolis at Bringelly, and six stations are proposed to be built along the alignment.

In order to facilitate future Sydney Metro station at St Marys, interchanging with the existing suburban railway station, TfNSW and Sydney Metro – Western Sydney Airport has proposed to undertake Advanced Enabling Works (AEW) at the St Marys station.

This Sydney Metro AEW at St Marys are being delivered by Laing O'Rourke to facilitate a future Sydney Metro station with the construction of the Footbridge St Marys Project (CSSI works).

1.2.1 Project Location:

St Marys Railway Station is located on the T1 - North Shore & Western Line between Kalang Avenue and Glossop Street. The station is located about 40 Kilometres west of the Sydney Central Business District (CBD) in the suburb of St Marys, placed in the Penrith Local Government Area. The project, FSM, will connect the north and south of the station precinct. The project location is given in the below Figure 1.

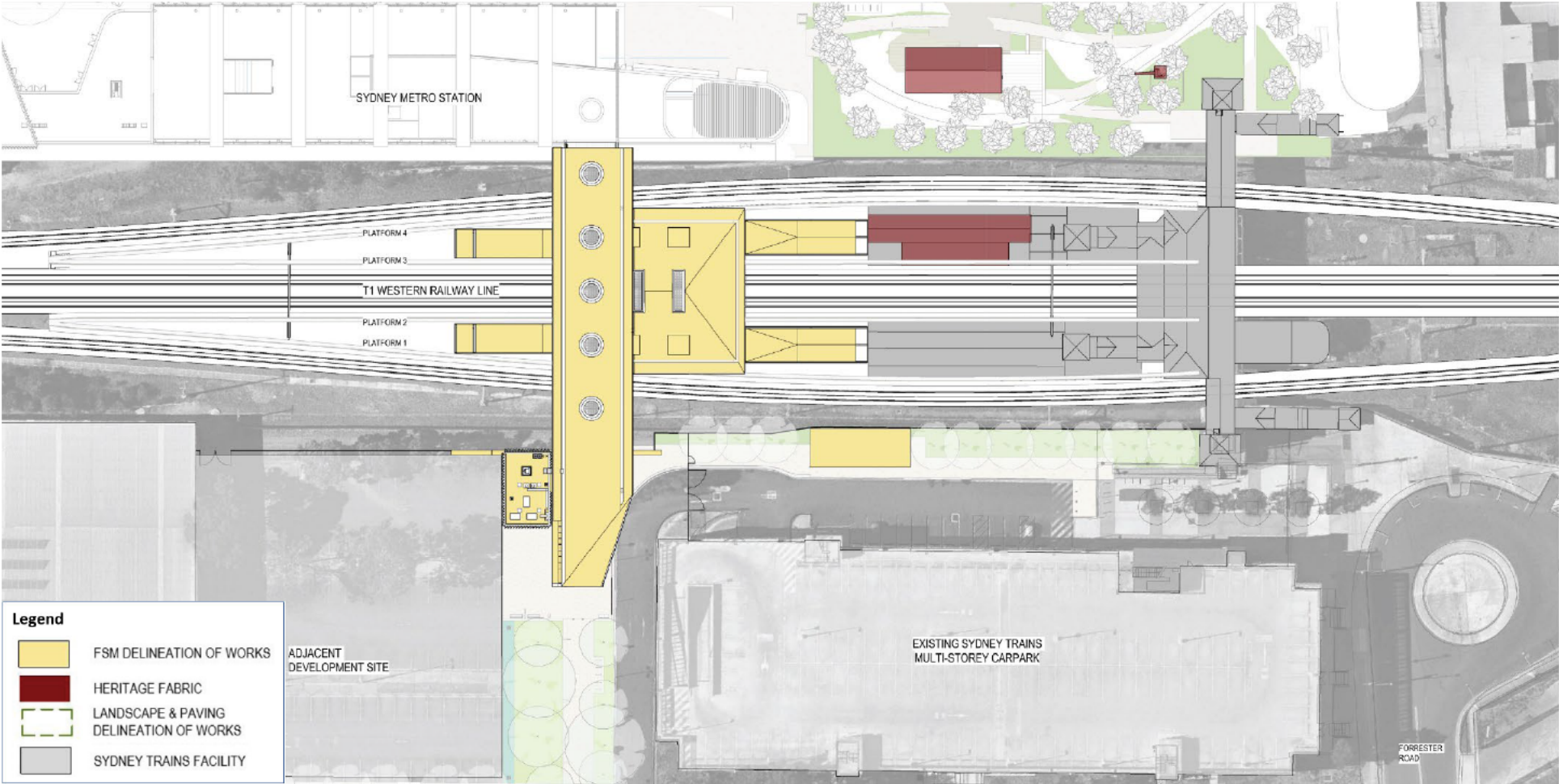


Figure 1: SM-WSA Footbridge St Marys Project

1.2.2 Project Description:

The SM-WSA AEW Footbridge St Marys works will allow for the interchange between the future SMWSA St Marys metro station, Harris Street carpark, and existing Sydney Trains platforms at St Marys. The project involves the following scope of works:

- Demolition and removal of all existing structures and services affected by the FSM Works such as canopy removal, removal/modification of fence line and light pole removals
- Construction of a footbridge spanning the Sydney Trains T1 line at St Marys Station
- Installation of vertical transportation comprising stairs, four (4) escalators and five (5) lifts
- Modifications to existing Sydney Trains assets to enable the construction of the footbridge including relocation of Guards Indicators, CCTV, PA, Over Head Wire System (OHWS), drainage and utility infrastructure, lighting, and platform furniture
- Construction of stairs and canopies which form part of the footbridge structure
- Installation and construction of Sydney Trains services, facilities and rooms
- Installation of new lighting, passenger information display system (PIDS), PA, CCTV, ticketing, communications network equipment, ventilation, plumbing and all related systems in accordance with Sydney Trains and Australian Standards
- Electrical earthing, bonding protection and stray current mitigation
- Northern/Harris Street landscaping, plaza, bike storage, kerb side transport.

1.2.3 Construction Compounds and Ancillary Facilities

To support the above activities, the main FSM site compound and laydown area as approved under the EIS will be established at Harris Street. Further Minor Ancillary Facilities (Laydowns 1-5 and 2 Harris Street) have been approved under Minor Ancillary Facilities Checklists.

All Minor Ancillary Facilities and the site compound area is shown in the Environmental Control Maps available on the project drive and also displayed on site.

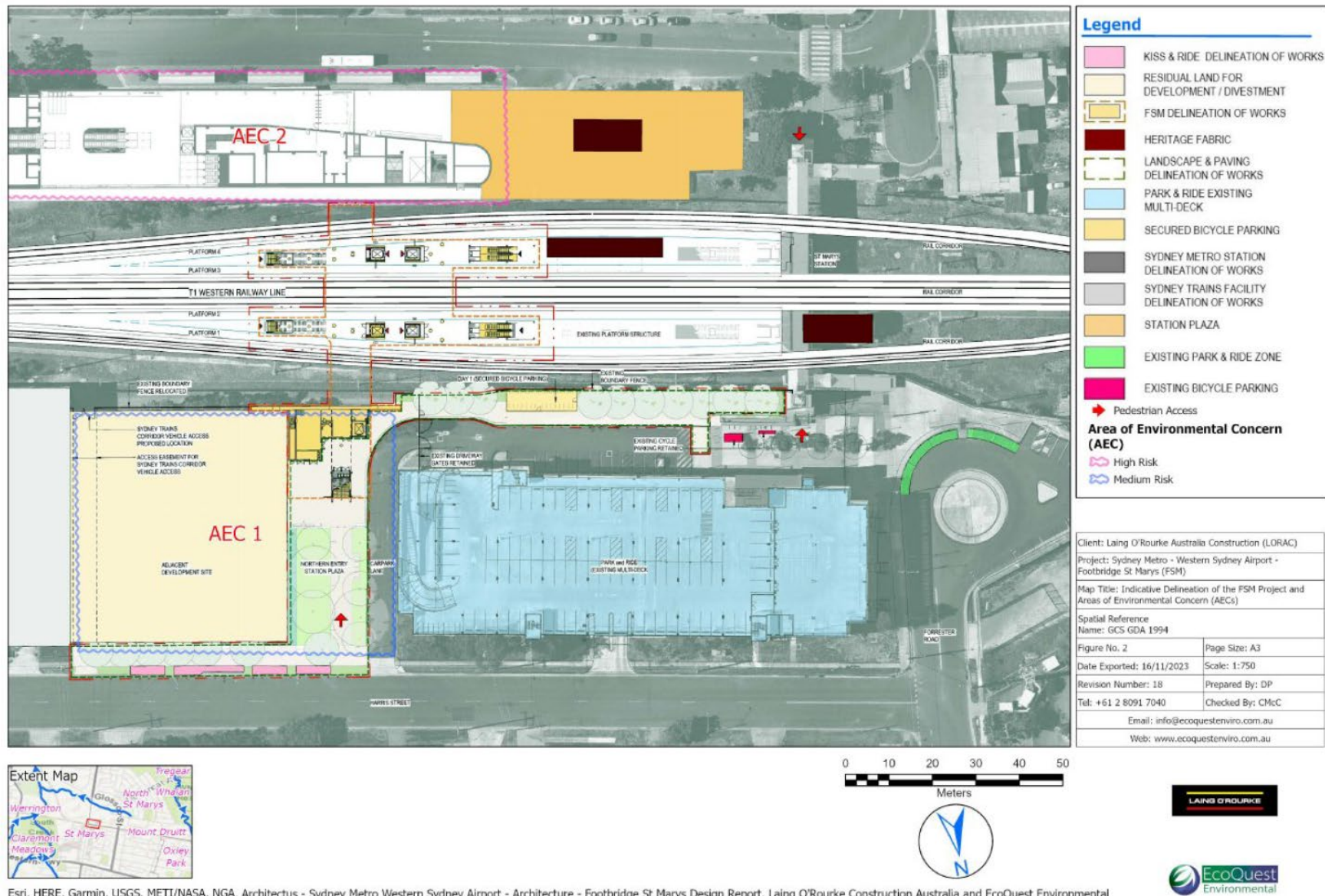
All Ancillary Facilities meets the criteria specified by CoA A22 for Minor Ancillary Facilities. Further details of additional Minor Ancillary Facilities are provided in Section 12.8.15.

1.2.4 Staging of works:

The various work activities involved in the Sydney Metro - Western Sydney Airport Advanced and Enabling Works (SM-WSA AEW) Footbridge St Marys (FSM) works is given below in the Table 1. The indicative design and drawing of the Footbridge St Marys works is given in Figure 2 and the artistic interpretation of the finalised project is given in Figure 3, respectively.

Table 1: Stages of Works in SM-WSA Footbridge St Marys

Activity Description	Proposed Start	Proposed Finish
Early Works	27-May-23	19-May-24
Site Compound Establishment	01-Sep-23	31-Nov-23
1995 Canopy Removal	27-May-23	31-Aug-23
Platform Tie Piles	27-May-23	19-May-24
Service Relocation	27-May-23	19-May-24
Main Works	01-May-24	19-Dec-26
Piling foundations: excavation/trim piles/blinding/FRP	01-May-24	17-Dec-24
Platform Stairs (1 & 2)	20-Dec-25	13-May-26
Footbridge	13-Sep-26	03-Aug-26
Platform Lifts (1-4)	22-Jan-26	03-Jul-26
Concourse	14-Oct-25	03-Aug-26
Escalators (1-4)	28-Feb-26	05-Aug-26
Platform Works (drainage & Pits, Canopy, Resurfacing, Platform Furniture)	01-Feb-24	18-Sep-26
Services (OHW, Electrical/Comms, Utilities)	01-Feb-24	17-Sep-26
Northern Plaza, Utility Building & Deflection Wall	01-Sep-24	14-Jul-26
Landscaping (Northern Entry)	27-Feb-26	06-Aug-26
Bike shelter	07-Jan-26	13-May-26



Indicative Delineation for the FSM Project

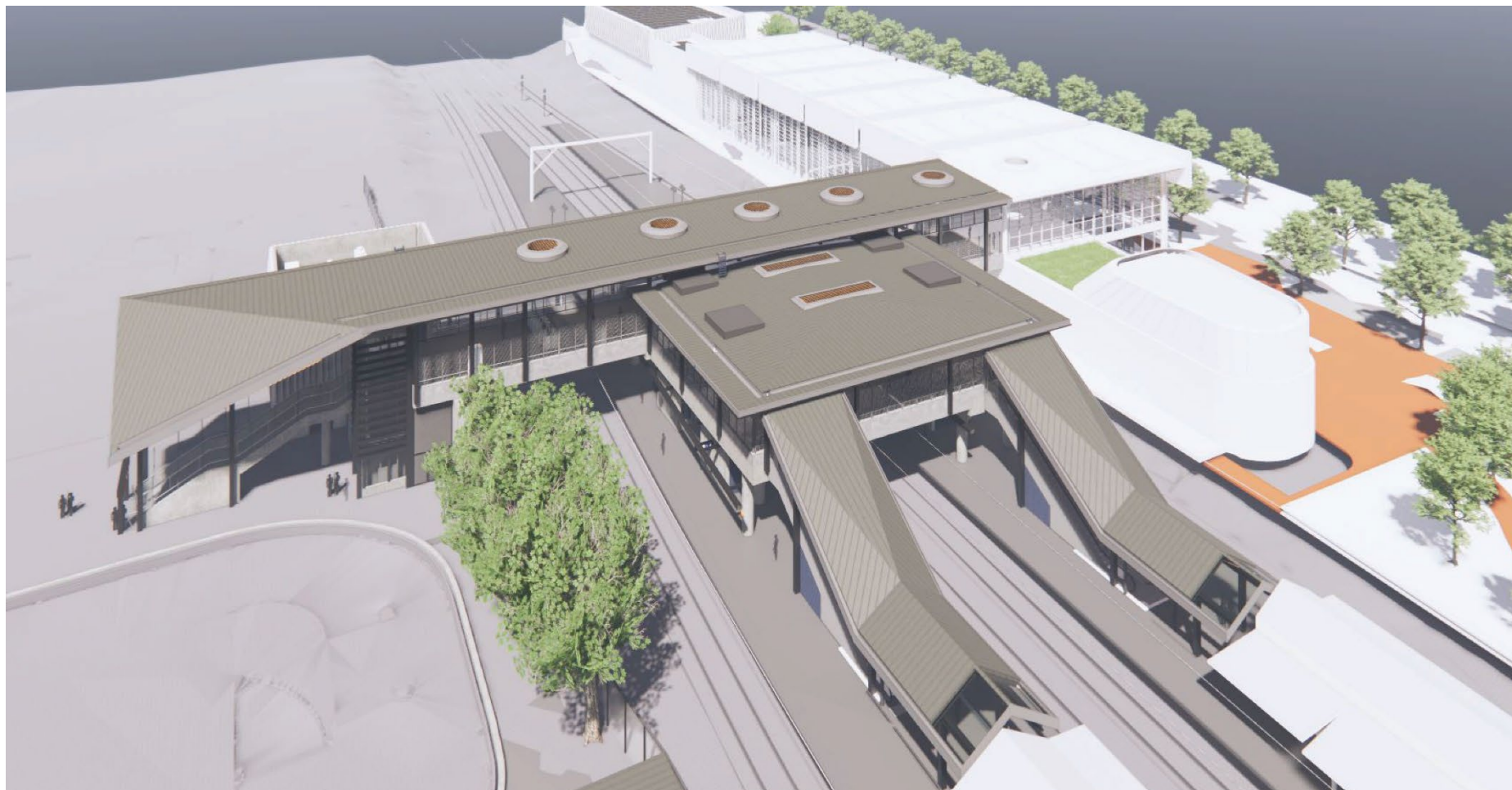


Figure 3: Artistic Interpretation of Completed FSM Project

1.3 Environmental Approvals

The conditions of approval pertaining to the works fall under the Sydney Metro - Western Sydney Airport CSSI 10051. A summary of environmental approvals is provided in the below Table 2.

Table 2: Summary of Environmental Approvals

Planning Approval Type	Location
Sydney Metro WSA Low Impact Works	St Marys Geotechnical Investigations and Early Works
Sydney Metro – WSA CSSI (10051)	Footbridge St Marys

1.4 Scope of Plan

This CEMP has been developed to address the project specific requirements as well as the requirements of Laing O'Rourke's Health, Safety and Environmental Management System (HSEMS).

Conditions of approval (CoA) and Revised Environmental Mitigation Measures (REMMs) relevant to the design and construction phases of the Project are addressed in the CEMP. This CEMP has been prepared in accordance with the Construction Environmental Management Framework of Sydney Metro WSA - CSSI 10051.

Construction shall not commence until this CEMP and procedures have been approved by the Environmental Representative (as outlined in CoA C10, and Staging Report). The approved and/or endorsed CEMP and procedures by the ER, including any minor amendments approved by the ER, must be implemented for the duration of construction.

2.0 Plan Objectives

2.1 Purpose

The plan will:

- Ensure positive and negative effects on the environment are assessed as they relate to organisational stakeholders, including those described in Laing O'Rourke's Health, Safety and Environmental Management System (HSEMS)
- Ensure that the works meet contractual, legal and other environmental requirements
- Ensure the works meet the requirements of ISO 14001, including the need for continual improvement
- Link to Laing O'Rourke's integrated management systems
- Provide all personnel with the systems, procedures and documentation necessary to undertake all activities associated with the works in accordance with the environmental requirements.

All works carried out will be in accordance with:

- TfNSW requirements as detailed in the contractual agreement
- Sydney Metro-WSA CSSI 10051 - Specifically the Ministers Conditions of Approval, Revised Environmental Mitigation Measures, CEMF, CTMF, OCCS and the Staging Report
- Project objectives outlined in Staging Report
- This plan and the Environmental Management System as part of the HSEMS

- ISO 14001 Environmental Management System
- Laing O'Rourke's compliance obligations, including mandatory and voluntary requirements.

Forming the overarching environmental management framework for the works, the plan details the environmental management process and controls to be implemented and applies to environmental approval pathways. Environmental risk assessments will be updated to include relevant risks and opportunities for each project. Operational control measures included in this plan will apply across the Program. Project-specific obligations and control measures will be included within this plan as necessary and implemented on the project through the location-specific Environmental Control Maps.

2.2 Objectives

The CEMP is to serve as a reference document to provide a systematic and integrated method for planning and performing environmental management during construction works on the current SM-WSA AEW – Footbridge St Marys works. It is to provide guidance on the management processes that will facilitate the timely implementation and maintain compliance with the following:

- Contractual requirements for environmental management
- NSW Government Environmental Management System Guidelines
- Relevant environmental legislation
- Specific project approvals
- Other environmental obligations associated with the works.





3.0 Roles and Responsibilities

Appropriate responsibilities are provided to all key LORAC personnel and the wider project team to ensure effective environmental management for the duration of the Project. Achievement of identified environmental objectives and targets relies on all site personnel to diligently carry out their duties and to report all environmental incidents and hazards immediately to the Environmental Manager/Advisor.

Each member of the LORAC wider project team and sub-contractors will be site inducted and made aware of their responsibilities in the site inductions. Sub-contractors will be made aware of CEMP requirements during tendering and will be expected to demonstrate as part of their tender response how they intend to meet the Project's CEMP and sustainability requirements. This will ensure that environmental competence is retained for all subcontractors. The responsibilities of key LORAC personnel are summarised in the table below. The relationship between LORAC, TfNSW personal and SM-WSA is depicted in an organisation chart presented in Figure 4.

Table 3: Construction Environmental Management Roles and Responsibilities

Role	Responsibilities
Delivery Entity	• Laing O'Rourke and TfNSW delivering the SM WSA AEW – Footbridge St Marys works.

Role	Responsibilities
	<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="display: flex; align-items: center;">   </div> <div style="display: flex; align-items: center;">  <div style="margin-left: 10px;"> Transport for NSW </div> </div> </div> <div style="border: 1px solid black; padding: 10px; margin-top: 20px; width: 60%; margin-left: auto;"> <p>Owner Participant (OP) – Provision of staff and overall coordination with the owner team, broader transport cluster and stakeholders</p> </div> <div style="text-align: center; margin: 10px 0;">  </div> <div style="border: 1px solid black; padding: 10px; margin-top: 20px; width: 60%; margin-left: auto;"> <p>Non - Owner Participant (NOP) – engineering and construction including program management and Principal Contractor</p> </div>
Sydney Metro WSA (Principal)	<ul style="list-style-type: none"> • Sydney metro has responsibility in ensuring compliance with Planning Approval for the project works, as the Proponent under the EP&A Act. • Sydney metro is responsible for the provision of contracts and procurement of Principal Contractors. • The project will regularly report to Sydney Metro as requested to comply with regulatory approvals and licences. • Sydney Metro will undertake submission of the required environmental documents to the Planning Secretary and will confirm approval to the Principal Contractor. • Sydney Metro will undertake regular audits of the Contractors against their environmental obligations. • Sydney Metro will engage the Environmental Representative for the project in accordance with the Project Approvals.

Role	Responsibilities
Environmental Representative (MCoA A32)	<ul style="list-style-type: none"> • Receive and respond to communication from the Planning secretary in relation to the environmental performance of the CSSI • Consider and inform the Planning Secretary of any improvements that may be made to work practices to avoid or minimise adverse impact to the environment and community • Review, provide comment on and endorse (where required) any relevant environmental documentation to verify it is prepared in accordance with relevant environmental legislation, planning approval conditions, Environment Protection Licences, relevant standards and this CEMP; • Monitor and report on the implementation and performance of the above mentioned documentation and other relevant documentation; • Provide independent guidance and advice to Sydney Metro and the Contractors in relation to environmental compliance issues and the interpretation of planning approval conditions; • Be the principal point of advice for the DPE in relation to all questions and complaints concerning the environmental performance of the project; • Ensure that environmental auditing is undertaken in accordance with all relevant project requirements; and • Recommend reasonable steps, including 'stop works', to be taken to avoid or minimise adverse environmental impacts. • Will participate in the resolution of community complaints received directly by the department, if requested by the planning secretary. • Consider or assess the impacts of minor ancillary facilities as required by the Conditions of Approval MCoA A17-A22. • Consider any minor amendments to the CEMP and provide comment and endorsement • Endorse Low Impact Work Applications as per the Sydney Metro proforma; <ul style="list-style-type: none"> ○ Operation of ancillary facilities if the ER has determined the operational activities will have minimal impact on the environment and community; ○ Relocation and connection of utilities where the relocation or connection has a minor impact to the environment as determined by the ER; ○ Other activities determined by the ER to have minimal environmental impact which may include but not limited to demolition, construction of minor access roads, temporary relocation of pedestrian and cycle paths and the provision of property access.
Independent Certifier	<ul style="list-style-type: none"> • Assess and certify the Project for compliance, including environmental requirements
General Manager (LORAC)	<ul style="list-style-type: none"> • Accountable for the implementation of CEMP • Ensure internal audits of the system are conducted • Review audit corrective actions and act as necessary to ensure timely closeout of issues • Authorise expenditure on environmental issues within limits of authority • Ensure adequate resources are made available to meet environmental obligations and objectives • Resolve major issues that cannot be resolved by Project Managers.
Project Operational Leader (LORAC)	<ul style="list-style-type: none"> • Ensure that environmental performance and knowledge is communicated at senior management team meetings • Ensure that environmental obligations are met across all projects • Consult with the environmental team on sustainability matters or opportunities as they arise during project development • Champion the environmental program objectives.

Role	Responsibilities
Project Manager (LORAC)	<ul style="list-style-type: none"> • Ensure the project responsibilities and authorities are defined and communicated • Provide adequate resources to meet environmental obligations and objectives • Ensure the CEMP is effectively implemented and maintained • Appoint and provide support for the Environmental Manager • Report to senior management on the performance of the system and environmental breaches • Take action to resolve environmental non-compliances and incidents • Ensure suppliers and subcontractors comply with requirements • Report environmental incidents to the client and local authorities as required.
Construction Manager (LORAC)	<ul style="list-style-type: none"> • Reports to the Project Leader • Supervise all site construction activities and personnel to ensure they meet environmental and other requirements • Organise and manage site plant, labour, and temporary materials • Ensure that site environmental controls are properly maintained and provide support for the implementation of the requirements • Report all environmental incidents • Take action to resolve non-compliances and incidents.
Commercial, Finance and Procurement Lead (LORAC)	<ul style="list-style-type: none"> • Carefully select suppliers and subcontractors based upon their ability to meet stated requirements • Ensure purchase orders and agreements include environmental requirements as necessary • Select environmentally friendly materials where possible.
Environmental Manager (LORAC)	<ul style="list-style-type: none"> • Ensure the CEMP is effectively established, implemented and maintained • Ensure compliance with all relevant statutes, regulations, rules, procedures, standards and policies • Liaise with Sydney Metro Environmental Representatives on environmental issues, including compliance matters. (incidents, conditions of approval, change management, emergencies or deviations from the CEMP) • Oversees and advises the onsite Environmental Site Representative in the establishment, implementation, maintenance and compliance with Instrument of Approval SSI 10051, CEMF, REMMs, and upgrades to these documents (as needed) to remain current with the progress of the works • Ensure that all personnel on site receive appropriate environmental induction and training and are aware of their environmental responsibilities under relevant legislation and the contract • Report to the General Manager / Project Managers on the performance of the system and improvement opportunities • Provide support to the team to enable them to meet their environmental commitments • Ensure environmental records and files management process are established and implemented • Conduct regular compliance checks as required by this plan • Stop activities where there is an actual or immediate risk of harm to the environment or to prevent environmental non-compliances until risk is rectified and advise the Project Manager and the Site Supervisor • Assess any change to the Project scope and activities against approvals and licences • Ensure environmental actions raised by Sydney Metro, TfNSW and the ER are closed out and reported by the project team

Role	Responsibilities
	<ul style="list-style-type: none"> • Ensure non-compliances and environmental incidents are recorded and written reports provided to Sydney Metro Environmental Manager and Environmental Representative as necessary • Must have tertiary qualification in Environmental Science, Environmental Engineering or equivalent, and a minimum of three (3) years' experience in environmental management of projects.
Environmental Advisor / Coordinator (LORAC)	<ul style="list-style-type: none"> • Provide onsite support to oversee the implementation of the environmental aspects of the project • Collaborating with client's team, project management team, and other personnel on the project to provide strategic advice on environmental outcomes, to ensure compliance and improve the environmental performance • Implementing the project's environmental management system • Ensuring that the CEMP is established, implemented and maintained in compliance of the Instrument of Approval SSI 10051, Revised Environmental Mitigation Measures, Low Impact Minor Works Approvals, unexpected finds procedures including, procedures and upgrades to these documents (as needed) to remain current with the progress of the works • Completion of environmental inspections and assurance actions on site. • Facilitate environmental induction and toolbox talks for all site personnel • Review completed environmental records to ensure compliance with specified requirements • Ensure environmental Non-compliance and incidents are reported and recorded • Overall responsibility for the establishment, management, monitoring and maintenance of environmental controls within the Site, including noise monitoring • Monitor, develop and implement environmental change management processes and out of hours works approvals documentation • Specific authority to stop work on any activity where deemed it necessary to prevent environmental nonconformities • Notify relevant parties of any environmental incidents • Ensure environmental records and files are collected and maintained • Relevant tertiary qualification in Environmental Science, Environmental Engineering or equivalent.
Communication and Stakeholder Relations Manager	<ul style="list-style-type: none"> • Leadership and management of the Communications, Stakeholder and Community Relations Team • Build and maintain effective working relationship with TfNSW's representative and Stakeholder and Community Liaison team • Develops and oversees the implementation of the CCS and subplans • Responsible for a stakeholder and community relations induction and training program for all personnel involved in the performance of the project • Approves the Communications, Stakeholder and Community Relations team roles, role descriptions and responsibilities • Ensures the Community Communications Strategy and key activities are integrated into the project schedule • Attends the TfNSW led Communications Management Control Group and reports on activities, strategies and issues • Attends the monthly Project Management Review Group meeting to discuss project status and issues • Issues and crisis management • Manages media issues and acts as media spokesperson for JHLORJV (subject to media protocols)

Role	Responsibilities
	<ul style="list-style-type: none"> Responsible for the Communications and Stakeholder Management KPI as well as the Communications and Stakeholder management component of the Quality of Information and Relationship with the Principal's representative KPI Required to be on call 24 hours based on the team rotation Liaise directly with the Independent Environment Representative as required and where appropriate to facilitate any environmental management requirements, including those identified within the Planning Approvals.
Community Place Manager	<ul style="list-style-type: none"> Build and maintain effective working relationship with community, businesses, and stakeholders Support the successful delivery of the project's Community Communication's Strategy and requirements Implementation of the Community Communications Strategy and any relevant Sub-plans Establish effective working relationships with local stakeholder to support the effective delivery of the project Required to be on call 24 hours based on the team rotation to respond to enquiries and complaints. Review, approve and oversee the development and distribution of all notification, newsletter, social media, photography, and other communication material. Maintain the Consultation Manager database and generate reports as required. Drives Communications and Stakeholder Management KPIs as well as the Communications and Stakeholder management component of the Quality of Information and Relationship with the Principal's representative KPI
Non-owner Participant corporate environmental leaders	<ul style="list-style-type: none"> Provide coordinated functional environmental support to the team Coordinate internal audits as part of NOP corporate business-wide audit schedule.
All personnel (incl. subcontractors)	<ul style="list-style-type: none"> Comply with the relevant acts, regulations and standards Comply with Laing O'Rourke's Environmental Policy and procedures Promptly report to management on any non-compliances, environmental incidents and/or breaches of the system Undergo induction and training in environmental awareness as directed by management Report all incidents Act in an environmentally responsible manner.
Supply chain partners	<ul style="list-style-type: none"> Comply with all legal and contractual requirements Comply with site environmental requirements Comply with management and supervisory directions Participate in induction and training as directed Report all incidents. Subcontractors to operate within Laing O'Rourke's EMS documentation.
Environmental Consultants	<ul style="list-style-type: none"> Noise and Vibration specialist advice – RWDI Australia Pty Ltd ((refer to the DNVIS in attachment R) Aboriginal and Built Heritage specialist advice during Construction – Artefact Heritage Excavation Director (refer to the Heritage Management Procedure for detailed responsibilities) – Sophie Jennings & Kat McRae, GML Heritage Architects – specialist input into design development – Artefact Heritage (Sydney Metro - Western Sydney Airport Technical Paper 4: Non-Aboriginal heritage) Arborist Reports – Tree Survey

Role	Responsibilities
	<ul style="list-style-type: none">• Tree Lopping Services – Treelink• Environmental Consultants are to comply with all Supply Chain Partner responsibilities• Consultants are to have relevant experience required to undertake and provide professional advice and deliver reports.

4.0 Organisational Structure

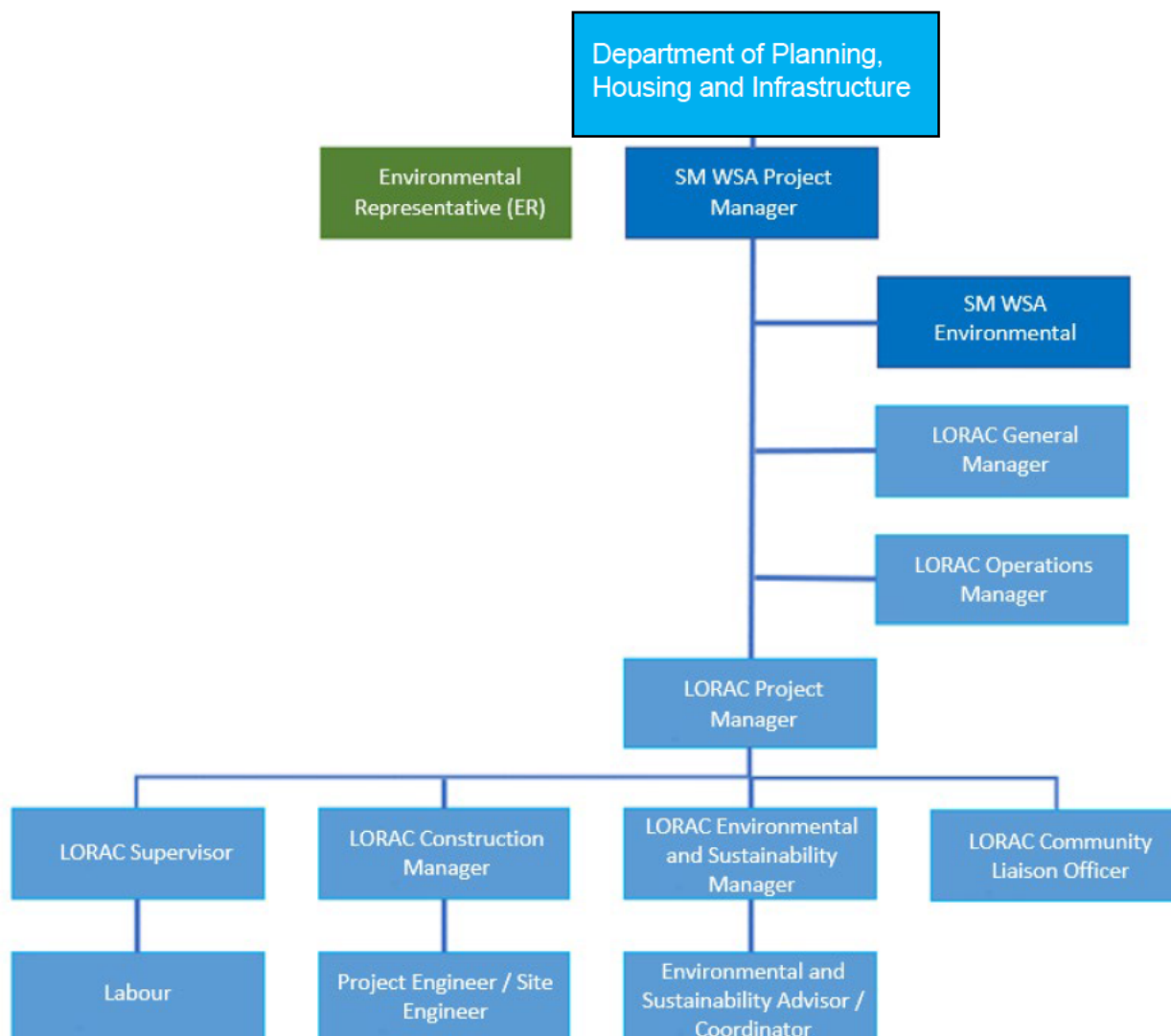


Figure 4: Organisational Structure

The Environmental and Sustainability team for the project reports functionally to the Project technical Lead and is integrated within the programme management and delivery teams.

5.0 Environmental and Energy Policy

Laing O'Rourke is committed to the protection and enhancement of the environment and embracing sustainability as an integral part of fulfilling the Program objectives and targets. Laing O'Rourke's Management Systems, Environmental and Energy Policy will form part of the policy framework and will apply to all aspects of the works.

Laing O'Rourke is committed to be consistent with the Sydney Metro – Western Sydney Airport Sustainability Plan and the Sydney Metro Environment and Sustainability Statement of Commitment (CEMF 3.1b vi), with all subcontractors to work under LORAC' EMS (CEMF 3.1c).

ENVIRONMENTAL & ENERGY POLICY

Effective April 2021

ENVIRONMENTAL & ENERGY

Laing O'Rourke is an engineering enterprise, focused on major construction projects and strategic programmes, delivering certainty for clients from the earliest engagement and throughout the project lifecycle. Through a focus on certainty of delivery we will maintain an enduring and sustainable enterprise.

We are committed to the protection and enhancement of the environment through implementation and continual improvement of our environmental and, in the UK, our energy management systems. This policy sits alongside our Sustainability and Supply Chain policies as part of our global policy framework, underpinned by our Global Code of Conduct.

Our commitment is to improve environment and energy performance through leading practices and innovation across all our businesses, offices and facilities and through the whole project lifecycle including design, procurement, delivery and aftercare.

This will be realised by:

- Demonstrating leadership of our environmental agenda by senior leaders
- Complying with relevant legislation and other requirements specific to the context of our business and regularly evaluating and reporting on our compliance obligations
- Preventing pollution of the environment
- Proactively minimising environmental impacts, including minimising direct and embodied carbon emissions, and providing energy-efficient / low-carbon assets for our clients
- Continually improving the environmental and energy performance through clear objectives, targets and programmes
- Providing sufficient and competent resources and information to achieve our environmental and energy-related objectives and targets
- Actively pursuing opportunities in the design and sourcing of our products, services and supply chain to reduce carbon emissions and improve energy efficiency in the delivery and operation of the assets we build
- Engaging with our stakeholders including clients, suppliers, regulators and industry bodies to address lifecycle aspects and minimise our impacts on the environment
- Improving resource efficiency by reducing the use of natural resources and reducing waste, maximising resource recovery and diverting the waste we do produce away from landfill sites
- Reducing our water consumption and improving water efficiency in all of our operations
- Proactively protecting, preserving and exploring opportunities to enhance biodiversity and land quality
- Communicating and addressing the risks and opportunities associated with the impacts of our activities, products and services
- Enhancing employee understanding of environmental sustainability by stimulating cultural change and providing clear direction
- Maintaining ISO 14001 certification for our principal businesses and ISO 50001 certification in the UK and progressing further certifications for our products and services as appropriate

The Board of Directors of Laing O'Rourke fully endorses this policy.



Sir John Parker GBE
Chairman

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Figure 5: Environmental and Energy Policy

Our goal is to work with stakeholders to minimise any negative impacts of our operations and maximise the quality of the built infrastructure for future generations. Through innovation and application of leading practice, we aim to steer the industry to design sustainable and high-quality built infrastructure with as little negative environmental impact as possible throughout the asset lifecycle. We will balance negative impacts with innovative opportunities to improve environmental outcomes associated with the works.

All personnel associated with the works, including subcontractors and supply chain partners, will be required to comply with the spirit and intent of the policy. It will be:

- Displayed at prominent locations on site and at associated facilities
- Communicated to personnel during induction and training
- Made accessible to stakeholders and interested members of the community.

6.0 Environmental Management System

For the purposes of the works, Laing O'Rourke's Environmental Management System, currently certified (No. 4749) with Sci Qual will be implemented. The system has been continuously certified as compliant with AS/NZS ISO 14001 since 1997. The Environmental Management System forms part of Laing O'Rourke's integrated Health, Safety and Environmental Management System and can be accessed at: [HSEMS – Environmental Requirements](#).

Laing O'Rourke is committed to be consistent with the Sydney Metro – Western Sydney Airport Sustainability Plan and the Sydney Metro Environment and Sustainability Statement of Commitment (CEMF 3.1b vi), with all subcontractors to work under LORAC' EMS (CEMF 3.1c).

This plan acts as a link to and roadmap for the elements of Laing O'Rourke's Environmental Management System relevant to the works. The Environmental System Requirements and the shared system requirements have been designed and developed to address the processes necessary to meet environmental compliance obligations, policy and objectives as part of the EMS. Collectively they form the Laing O'Rourke Environmental Management System. The system collectively complies with the requirements of AS/NZS ISO 14001.

Figure 6 depicts The Environmental System Requirements, while Figure 7 presents its certification.

Environmental System Requirements

ESR	SR Change Management View Resources	ESR	SR Communication & Reporting View Resources	ESR	SR Compliance Review & Assurance View Resources
ESR	SR Compliance Obligations View Resources	ESR	SR Emergency Planning and Response View Resources	ESR	SR Environmental Aspects & Impacts View Resources
ESR	SR Environmental Design View Resources	ESR	SR Environmental Management Plans View Resources	ESR	SR Environmental Planning View Resources
ESR	SR Environmental Risk & Opportunity View Resources	ESR	SR Event Management, Reporting and Investigation View Resources	ESR	SR Inspections, Audits and Corrective Actions View Resources
ESR	SR Leadership Engagement View Resources	ESR	SR Life Cycle Perspective View Resources	ESR	SR Onboarding, Training, Induction and VOC View Resources
ESR	SR Procurement & Supply Chain View Resources				

Figure 6: Laing O'Rourke's Environmental Systems Requirements



Environment Management Systems

Certificate of Registration

Laing O'Rourke Australia Construction Pty Limited

LORA National Pty Ltd

Laing O'Rourke Australia PM Pty Ltd

Level 21, 100 Mount Street, North Sydney NSW 2060
 Level 2, M & A Building, 825 Ann Street, Fortitude Valley QLD 4006
 Level 24, IBM Centre, 60 City Road, Southbank VIC 3006
 Level 13, 197 St Georges Terrace, Perth WA 6100

In recognition of the implementation of a management system conforming to

ISO 14001:2015

The Scope of Certification covers the following activities:

Processes associated with the design, construction and project management of multi-discipline engineering construction and building projects including rail; commercial, residential and special purpose buildings; roads and bridges; gas; water and associated infrastructure and civil works.

Certificate No.
4749

Date of Issue
28 September 2023

Certification Date
6 September 1991

Expiry Date
30 October 2026

Alain Etchegaray
GENERAL MANAGER

Signed for and on behalf of
Sci Qual International Pty Ltd



Level 7, 10 Felix Street, Brisbane Qld 4000

The certificate of Registration, which remains the property of Sci Qual International Pty Ltd, is granted subject to the Regulations governing the certification scheme operated by Sci Qual International Pty Ltd and in respect of goods or services described in the schedule hereto, bearing the same number as this certificate.



Environment Management Systems

Certificate of Registration

LOR Rail Operations Pty Ltd

Level 21, 100 Mount Street, North Sydney NSW 2060
 1 Distribution Place, Seven Hills NSW 2147
 Lot 643 Junction Street, Telarah NSW 2320
 107 William Angliss Drive, Laverton North VIC 3026

In recognition of the implementation of a management system conforming to

ISO 14001:2015

The Scope of Certification covers the following activities:

The provision of engineering, design, construction, maintenance and project management services for multi-discipline Rail Systems and Civil Infrastructure projects, renewals, enhancements and upgrades.

Certificate No.

5807

Date of Issue

20 September 2023

Certification Date

20 September 2023

Expiry Date

30 October 2026

Alain Etchegaray
GENERAL MANAGER

Signed for and on behalf of
Sci Qual International Pty Ltd



Level 7, 10 Felix Street, Brisbane Qld 4000

The certificate of Registration, which remains the property of Sci Qual International Pty Ltd, is granted subject to the Regulations governing the certification scheme operated by Sci Qual International Pty Ltd and in respect of goods or services described in the schedule hereto, bearing the same number as this certificate.

Figure 7: HSEMS Certification

6.1 Laing O'Rourke Environmental Management System

The project management system consists of the Environmental Risk Actions Plans contained within this CEMP and Environmental Control Maps.

The CEMP details a project wide approach describing intricacies of the project site with Environmental Control Maps developed progressively with detail specific control measures required at for each stage of works.

It should be noted that the CEMP has been developed to comply with project's MCoA, CEMF, REMMS Staging Report and Sydney Metro requirements.

The LORAC Environmental Management System is to align with the Sydney Metro Environment and Sustainability Management System as per Figure 1 in the CEMF (CEMF 3.1d).

6.1.1 Management of Sustainability

Managing sustainability requires a holistic approach and will naturally interface with many disciplines and management plans across the works.

Laing O'Rourke's approach to sustainability for this project is documented in the Sydney Metro Enabling Works Sustainability Management Plan (SMP). Laing O'Rourke is committed to be consistent with the Sydney Metro – Western Sydney Airport Sustainability Plan and the Sydney Metro Environment and Sustainability Statement of Commitment (CEMF 3.1b vi), with all subcontractors to work under Laing O'Rourke EMS (CEMF 3.1c).

6.1.2 TfNSW Sustainable Design Guidelines (SDG)

Laing O'Rourke is seeking to deliver "Gold" Rating under the TfNSW Sustainable Design Guidelines (SDG) Requirements Version 4.0 as per the requirements of TfNSW for this scale of project.

6.1.3 Sydney Metro-WSA Standard Requirements

Laing O'Rourke will ensure that all works are carried out in accordance with the Sydney Metro-WSA Environmental Management Framework documents. Laing O'Rourke will provide sufficient competent environmental resources on and offsite to ensure effective implementation of the Construction Environmental Management Plan (CEMP). Laing O'Rourke's activities will have regard to the following reference documents:

- Exhibit DI - PA-FSM-001 Sydney Metro Western Sydney Airport CSSI- Conditions of Approval
- Exhibit D1 - PA-FSM-002 Sydney Metro CSSI Aboriginal Cultural Heritage Management Plan
- Exhibit D1 - PA-FSM-003 Sydney Metro Unexpected Heritage Finds Procedure
- Exhibit D1 - PA-FSM-004 Revised PD, PO and EMMs
- Exhibit D1 - PA-FSM-005 Sydney Metro Overarching Community Communications Strategy
- Exhibit 01- PA-FSM-006 Sydney Metro Construction Environmental Management Framework
- Exhibit D1 - PA-FSM-007 Sydney Metro Construction Noise and Vibration Standard
- Exhibit D1 - PA-FSM-008 Sydney Metro Revised Biodiversity Development Assessment Report
- Exhibit D1 - PA-FSM-009 Sydney Metro Revised Aboriginal Cultural Heritage Assessment Report
- Exhibit D1 - PA-FSM-010 Sydney Metro Aboriginal Archaeological Report
- Exhibit D1 - PA-FSM-011 Sydney Metro Archaeological Research Design
- Exhibit D1 - PA-FSM-012 Sydney Metro Construction Traffic Management Framework
- Exhibit D1 - PA-FSM-013 Sydney Metro OOHV Protocol
- Exhibit D1 - PA-FSM-014 Sydney Metro Environment and Sustainability Statement of

Commitment

- Exhibit D1 - PA-FSM-01S Transport Environment and Sustainability Policy
- Exhibit D1 - PA-FSM-016 Sydney Metro Contaminated Land Management Procedures
- Exhibit 01- PA-FSM-017 Sydney Metro Environmental Compliance and Sustainability Reporting Procedure
- Exhibit 01- PA-FSM-018 Sydney Metro Environmental Incident and Non-compliance Reporting Procedure
- Exhibit D1 - PA-FSM-019 Sydney Metro Water Discharge and Re-use Procedure
- Exhibit D1 - PA-FSM-020 Sydney Metro Out-of-hours work application form
- Exhibit D1 – PA – FSM-021 SMWSA Staging Report v7_FINAL

6.1.4 Lifecycle Perspective

Laing O'Rourke's partners take a lifecycle approach and perspective to business activities, which we will apply to the environmental aspects of the works. This involves understanding the relevant stages of a product or service system, from raw material acquisition or generation from natural resources to final incorporation or disposal. Delivery can be divided into five broad categories:

- **Development:** Environmental planning, estimating and cost planning and proposals
- **Commercial:** Head contract and subcontract formation
- **Engineering:** Feasibility studies, concept design, front-end engineering design and detailed design
- **Procurement:** Supply and delivery of goods and services
- **Delivery:** Construction and commissioning.

When applying a lifecycle perspective, Laing O'Rourke will consider the:

- Stage in the lifecycle of the product or service
- Degree of control we have over the lifecycle stages
- Degree of influence we have over the lifecycle
- Life of the product
- Ability to influence the supply chain.

At each stage of delivery, Laing O'Rourke will consider aspects and opportunities to influence lifecycle outcomes.

7.0 Environmental Objectives and Targets

Laing O'Rourke's overarching environmental objectives are to:

- Encourage best-practice management through planning, commitment and continuous improvement
- Prevent and minimise adverse impacts on the environment
- Identify the potential for, and respond to environmental incidents, accidents and emergencies and take corrective action to limit the environmental impact
- Identify and control possible environmental hazards associated with the works

- Establish procedures to ensure no hazardous substance is stored on site without approval
- Recognise and protect any special environmental values and characteristics of the site, including cultural heritage significance
- Define environmental roles and responsibilities for personnel
- Ensure employees and supply chain partners undertake environmental training and awareness programs
- Ensure supply chain partners implement and adhere to the CEMP
- Describe monitoring procedures required to identify impacts on the environment resulting from the works
- Establish and maintain programs and procedures for periodic CEMP audits to be carried out
- Comply with all CSSI 10051 Minister's Conditions of Approval, Revised Environmental Mitigation Measures, Construction Environmental Management Framework, Staging Report Objectives and other environmental requirements.

Laing O'Rourke will review the Program objectives and targets as required, with non-compliances and corrective actions tracked in our digital data capture and action tracking system INTELEX. INTELEX is a cloud-based, tablet-enabled software system that will allow our site team to complete inspection activities and raise and assign environmental actions in real-time. A copy of the audit and any findings will be issued to TfNSW and Sydney Metro-WSA. Table 4 sets out the key metrics we will use to measure environmental performance.

Table 4: Environmental performance metrics

Objective	Target	Reporting and Monitoring
Effective site environmental controls	Environmental assessment and set-up completed prior to and during works in identified or affected areas which require environmental management protocols Effective environmental controls, monitoring and sampling requirements maintained for the duration of the work scope for environmental compliance Up-to-date environmental control maps, erosion and sediment control plans and records implemented throughout the works.	Inspection reporting
Environmental performance	Zero major environmental incidents No breaches of the CEMP, permits, or documents under conditions of approval No breaches of any other environmental approvals relevant to the scope of works Any minor incidents such as minor spillages reported and dealt with quickly and efficiently within appropriate periods Major incidents reported immediately to the Principal's Representative No Class 1 or Class 2 incidents.	Monthly reports
Environmental lead indicators	30/60/90 risk reviews are completed each month 100% of actions from environmental inspections closed out within the agreed timeframes	Monthly reports

Objective	Target	Reporting and Monitoring
	Environmental training program implemented 100% of personnel participate in four environmental toolbox talks per month Severe environmental risk (SER) program implemented Supply chain inspection audit program implemented.	
Effective implementation of the environmental system	No level, 1 corrective action requests (CARs) Under three level, 2 risks each report Under 10 level, 3 risks each report Closure of CARs within the nominated timeframe Timely release of environmental hold points Statutory reporting and contract reporting completed within the agreed timeframes to the agreed quality.	Audit report

Laing O'Rourke is committed to be consistent with the Sydney Metro – Western Sydney Airport Sustainability Plan and the Sydney Metro Environment and Sustainability Statement of Commitment (CEMF 3.1b vi), with all subcontractors to work under LORAC' EMS (CEMF 3.1c).

Key Objectives:

The management measures to address the Environmental Performance Objectives of the Footbridge St Marys works are given in Table 5.

Table 5. Key Environmental Performance Objectives as per Staging Report

Environmental Performance Objective Topic	Environmental Performance Objective	Triggered in Staging Report	Target	Management Measure
Supporting the provision of successful places – the project is integrated with and enhances the environment where it is located. Including improved accessibility and connectivity for communities.	The Applicable – Western Sydney Airport Design Guidelines and Design quality framework are implemented to deliver a rail corridor, stations and ancillary facilities that achieve the project vision and design objectives	Yes	The Footbridge St Marys works will be carried out generally in accordance with the design prepared by SM-WSA/TfNSW that is consistent with the appropriate design guidelines.	Any proposed changes to the design of the Footbridge St Marys works during construction will be referred to SM-WSA for review to ensure it meets the applicable design guidelines. This Performance Objective will be documented and illustrated in the Place, Urban Design and Corridor Landscape Plan
	Design excellence is exhibited in the project to complement the anticipated character of the precincts in which the project is located	Yes	The Footbridge St Marys works are located immediately adjacent to the exiting St Marys Station and will facilitate interchange between the future SMWSA St Marys metro station, Harris Street car-park, and existing Sydney Trains platforms at St Marys. The works are therefore consistent with the current and anticipated character of the precinct.	The works will be delivered as per the reference design objectives. Any design changes will be referred to SM-WSA for review.
	Accessibility and connectivity between future communities is supported by the project through opportunities to integrate with key project components such as stations	Yes	The Footbridge St Marys works facilitates the interchange between the future Sydney metro station and tunnels, the footbridge traverses above the existing Sydney Trains platforms at St Marys to maintain access. The new footbridge will also maintain access to the taxi rank and kiss and ride facilities.	The works will be delivered as per the reference design objectives. Any design changes will be referred to SM-WSA for review.
	Within Western Sydney International, the project is integrated with and supports the outcomes and design objectives set out in the Airport Plan, future master plans for Western Sydney International and design guidelines for Western Sydney International	No	Not Applicable	Not Applicable
The project contributes to greener places through supporting the	The number of trees within the project area is increased at a ratio of 2:1 (for vegetation	No	All vegetation within the Footbridge St Marys construction boundary has been allowed for	Vegetation removal is to be undertaken as per design objectives with TPZs to be

Environmental Performance Objective Topic	Environmental Performance Objective	Triggered in Staging Report	Target	Management Measure
enhancement and provision of green infrastructure	removal not subject to biodiversity offset); and tree canopy coverage is increased, using a range of local species, subject to the constraints on tree planting associated with safe airport operations		removal under the EIS. A preference to trim over remove is to be undertaken. The works are therefore consistent with the current and anticipated character of the precinct.	erected around trees to be retained. Tree impact survey to be supplied to SM to enable consideration for the PUDCLP for the tree replacement.
Network connectivity, safety and efficiency of the transport system in the vicinity of the project are managed to minimise impacts. The safety of transport system customers is maintained Impacts on network capacity and the level of service are effectively managed.	Safe and efficient routes are provided for pedestrians, cyclists and road users at/near construction sites.	Yes	Safe routes to the Motorists, Pedestrians and cyclists will be provided. Impacts to traffic and transport are minimised.	Traffic management measures will be undertaken in accordance with the MCoAs, REMMs, CTMF and CTMP.
	Access to the existing St Marys station is maintained while train services are operating.	Yes	Access to the existing St Marys station will be maintained throughout the construction of the Footbridge St Marys works.	Management measures will be undertaken in accordance with the LORAC CTMP.
	Safe access to properties and businesses is maintained during construction, unless alternatives are agreed with property owners and businesses.	Yes	Impacts to traffic and transport are minimised. Commuters' safety will be maintained. Safe access to properties and business will be maintained throughout construction.	Management measures will be undertaken in accordance with the CTMP, CLMP and Small Business Owners Engagement plan (incl. wayfinding signage)
	Heavy vehicles access the arterial network as soon as practicable on route to, and immediately after leaving a construction site	Yes		
	The local community and relevant authorities are informed of transport, access and parking changes/impacts to minimise inconvenience to the public.	Yes		
	Safe and efficient interchanges are provided between transport modes.	Yes		
	Transport interchange facilities provided at station precincts are designed in accordance with the modal access hierarchy	Yes		
	Each station and station plaza is provided with sufficient customer capacity to achieve a minimum Fruin's level of Service C (for 2056 demand)	Yes		
	Stations and interchanges are fully accessible and compliant with the Disability Discrimination	Yes		

Environmental Performance Objective Topic	Environmental Performance Objective	Triggered in Staging Report	Target	Management Measure
	Act 1992 (Cth) and the Disability Standards for Accessible Public Transport (Australian Government, 2002)			
Works are compatible with existing infrastructure and future transport corridors	The project is designed to be compatible with existing infrastructure and future transport corridors	Yes	The Footbridge St Marys works will be carried out in accordance with the design prepared by SM-WSA/TfNSW that is consistent with the appropriate design guidelines. The proposed footbridge will be constructed above the existing Sydney Trains to facilitate the future and existing transport corridors	The works will be delivered as per the reference design objectives. Any design changes will be referred to SM-WSA for review.
Construction noise and vibration (including airborne noise, ground-borne noise and blasting) is effectively managed to minimise adverse impacts on acoustic amenity construction noise and vibration (including airborne noise, ground-borne noise and blasting) are effectively managed to minimise adverse impacts on the structural integrity of buildings and items including aboriginal places and environmental heritage	Construction noise and vibration impacts on local communities (including airborne noise and ground-borne noise and vibration) are managed in accordance with the Construction Noise and Vibration Standard, the Interim Construction Noise Guideline, and the airports (Environment Protection) Regulations 1997. Structural damage to buildings, heritage items and public utilities and infrastructure, including the Warragamba to Prospect Water Supply Pipelines, from construction vibration to be avoided	Yes Yes	The project will implement measures to minimise the noise and vibration impacts where reasonable and feasible, of construction activities on local receivers in accordance with the ICNG.	Noise and Vibration management will be undertaken throughout the construction in accordance with the Sydney Metro Construction Noise and Vibration Standard, Noise and Vibration management Procedure (Attachment E- ERAPs: Noise and Vibration Management Procedure) Completed DNVIS (Attachment R) Use of non-vibratory and smaller equipment to be utilised where practicable. Monthly notification and AMMs to be provided to potentially impacted receivers as identified in DNVIS.
Increases in noise emissions and vibration affecting nearby properties and other sensitive receivers during operation of the project are effectively managed to protect the amenity and well-being of the community.	Operational noise and vibration levels from rail operations are managed in accordance with the Rail Infrastructure Noise Guidelines and Airports (Environment Protection) Regulations 1997 Operational noise levels for the stabling and maintenance facility, stations and other fixed infrastructure are managed in accordance with the Noise Policy for Industry 2017	No No	Not Applicable Not Applicable	Not Applicable Not Applicable

Environmental Performance Objective Topic	Environmental Performance Objective	Triggered in Staging Report	Target	Management Measure
The project design considers all feasible measures to avoid and minimise impacts on terrestrial and aquatic biodiversity	Minimise or where possible avoid impacts on threatened flora and fauna species, and ecological communities listed under the Biodiversity Conservation Act 2016 (NSW) and Environment Protection and Biodiversity Conservation Act 1999 (Cth)	No	Not Applicable	Not Applicable
	Manage groundwater drawdown at Orchard Hills to avoid or minimise impacts on groundwater dependent ecosystems	No	Not Applicable	Not Applicable
	No removal of any vegetation within the Thompsons Creek riparian zone or any adjacent areas that are non-certified under the south West Growth Area	No	Not Applicable	Not Applicable
	Culverts and bridges would be appropriately sized to maintain fauna habitat connectivity	No	Not Applicable	Not Applicable
	Maintain integrity and functionality of rail corridor fencing to minimise wildlife-train collision while providing opportunities for cross-corridor wildlife movement	No	Not Applicable	Not Applicable
	Re-establish native vegetation in accordance with the National Airports Safeguarding Framework Principles and Guidelines including Guideline C: Managing the Risk of Wildlife Strikes in the Vicinity of Airports (Australian Government, 2014)	No	Not Applicable	Not Applicable
Offsets and/or supplementary measures are assured which are equivalent to any residual impacts of project and operation	Impacts on threatened ecological communities and threatened species are offset in accordance with the requirements of the NSW Biodiversity Assessment Method (OEH, 2017)	No	Not Applicable	Not Applicable
The design, construction and operation of the project facilitates, to the greatest extent possible, the long-term protection, conservation	Impacts on the State heritage significant St Marys Railway Station Group are avoided or minimised so that the overall heritage value of the item is maintained	Yes	Impact to the heritage items is managed in accordance with the relevant legislation, including the EP&A Act, the Heritage Act 1997, and relevant guidelines.	Management of non-Aboriginal heritage will be undertaken through the delivery of the project in accordance with the MCoA, REMMs, CEMF and Heritage Management

Environmental Performance Objective Topic	Environmental Performance Objective	Triggered in Staging Report	Target	Management Measure
and management of the heritage significance of items of environment heritage. The design, construction and operation of the project avoids or minimises impacts, to the greatest extent possible, on the heritage significance of environmental heritage	Impacts on non-aboriginal heritage items and archaeology are minimised or where possible avoided.	Yes		procedure given under the CEMP: Attachment Q - Heritage Management procedure. Completion of heritage impact assessment as part of Design phase
	The design of St Marys station is sympathetic to retained and adjacent heritage items	Yes		
	The design of the project incorporates non-aboriginal heritage interpretation.	Yes		
The design, construction and operation of the project facilitates, to the greatest extent possible the long term protection, conservation and management of the heritage significance of items of Aboriginal objects and places. The design, construction and operation of the project avoids or minimises impacts, to the greatest extent possible, on the heritage significance of Aboriginal objects and places	The heritage significance of Aboriginal objects and places are protected, conserved and/or managed in order to ensure the project does not diminish the story and cultural understanding associated with the objects and places of Aboriginal people in New South Wales.	Yes	Impacts on Aboriginal heritage are managed in accordance with relevant legislation, including the EP&A Act, the Heritage Act 1977, and relevant guidelines. The potential impacts to aboriginal places and objects are mitigated by the mitigation measures provided.	The project documents have not identified any Aboriginal sites or areas of archaeological potential at St Marys Station. Therefore, no mitigation is expected to be required as part of the enabling works. The Sydney Metro Unexpected Heritage Finds Procedure will be implemented for the project.
	Impacts on areas of archaeological sensitivity and significance are avoided or minimised, where practical	Yes		
	The design of the project incorporates Aboriginal heritage interpretation and aboriginal cultural design principles in consultation with Aboriginal knowledge holders	Yes		
The project minimises adverse impacts on flooding characteristics. Construction and operation of the project avoids or minimises the risk of, and adverse impacts from, infrastructure flooding, flooding hazards, or dam failure. Long term impacts on surface water and ground water hydrology (including drawdown, flow rates and volumes)	Land and property beyond the construction footprint would not be impacted by construction for the 0.5 Exceedances per Year (EY) storm event	No	Not Applicable	Not Applicable
	No aspect of construction to materially adversely affect existing water quality in receiving waters to a minimum 0.5 EY storm event, or in line with the 'Blue Book' (Managing Urban Stormwater: Soils & Construction Volume 1 (Landcom, 2004)	Yes	The project would protect or contribute to achieving the Water Quality Objectives, during Construction. Construction water quality discharge (if required) would comply with the requirements of the CoAs. Management of water within the construction works area would	Progressive erosion and sediment control plans to be implemented with appropriate controls for the level of risk.

Environmental Performance Objective Topic	Environmental Performance Objective	Triggered in Staging Report	Target	Management Measure
are minimised. The environmental values of nearby, connected and affected water sources, groundwater and dependent ecological systems including estuarine and marine water (if Applicable) are maintained (where values are achieved) or improved and maintained (where values are not achieved) Sustainable use of water resources. The project is designed, constructed and operated to protect the NSW Water Quality Objectives where they are currently being achieved, and contribute towards achievement of the Water Quality Objectives over time where they are currently not being achieved, including downstream of the project impact including estuarine and marine waters (if Applicable)			be completed in accordance with the Blue Book Vol 2.	
	No material change to channel shape within the construction footprint for the 0.5 EY storm event for streams classified first order and higher	No	Not applicable	Not applicable
	Water discharged from the project, including runoff from hardstand areas, surface and ground water storages would: • contribute towards achieving ANZECC guideline water quality trigger values for physical and chemical stressors for slightly disturbed ecosystems in lowland rivers in southeast NSW, or • meet any water quality criteria determined in consultation with the NSW Environment Protection Authority (off-airport) where an EPL is required or in consultation with Western Sydney Airport in accordance with the Airports (Environmental Protection) Regulations 1997 (on-airport)	Yes	The project would protect or contribute to achieving the ANZECC guidelines and any other water quality criteria for water leaving the site during Construction. Construction water quality discharge (if required) would comply with the requirements of the CoAs.	Small volumes of groundwater are expected to be encountered during the works, a groundwater monitoring programme has not been allocated by Sydney Metro to the FSM project. If groundwater is encountered and dewatering is required, it will be tested, treated if required and discharged to the ballast if it meets the discharge criteria. If groundwater does not meet the discharge criteria after treatment, it will be transported to a suitably licensed waste facility for disposal. No groundwater will be discharged directly to stormwater. Progressive erosion and sediment control maps and controls are to be installed to mitigate water leaving the construction site. No EPL is applicable to these works.
	Drainage from the project (including the stabling and maintenance facility, service facilities and stations) designed in accordance with local council requirements for managing urban stormwater quality and quantity	Yes	The project will be constructed in accordance with the design prepared by SM-WSA/TfNSW that is consistent with the appropriate design guidelines.	The works will be delivered as per the reference design objectives. Any design changes will be referred to SM-WSA for review.
	For all land currently flooded up to the one per cent annual exceedance probability event, no change to peak flood levels up to the following	No	Not Applicable	Not applicable

Environmental Performance Objective Topic	Environmental Performance Objective	Triggered in Staging Report	Target	Management Measure
	limits, unless otherwise agreed with the affected property owner: <ul style="list-style-type: none"> • <u>residential, commercial, critical infrastructure</u> <ul style="list-style-type: none"> – no new above floor flooding, maximum change of 10 millimetres for existing flooded buildings and maximum of 50 millimetres for properties where flooding is below floor level • <u>roads</u> <ul style="list-style-type: none"> – maximum change of 50 millimetres • <u>Crown land open space, farming, grazing and cropping land</u> <ul style="list-style-type: none"> – maximum change of 200 millimetres 			
	Where flood water velocities are currently below one metre per second (m/s), the project is designed and operated to ensure they remain below one metre per second. Where velocities are above one m/s, an increase of no more than 20 per cent is permitted	No	Not Applicable	Not Applicable
	No change to flood hazard vulnerability classification limits for residential and commercial buildings or roads	Yes	Construction is undertaken in a manner that minimises the potential for adverse flooding impacts, the implementation of mitigation measures. Construction compounds and work sites are laid out such that flows are not significantly impeded. The project avoids long term impacts to surface water	Progressive erosion and sediment control plans to be implemented with appropriate controls for the level of risk
	No change to flood hazard vulnerability classification limits for all land types as a result of the location of the permanent spoil placement areas at Western Sydney International	No	Not Applicable	Not Applicable
	No change to the one per cent annual exceedance probability duration of inundation up to the following limits: <ul style="list-style-type: none"> • residential, commercial, critical infrastructure 	No	Not Applicable	Not applicable

Environmental Performance Objective Topic	Environmental Performance Objective	Triggered in Staging Report	Target	Management Measure
	<ul style="list-style-type: none"> – no increase for above floor flooding • roads – maximum change of 10 per cent increase in duration • agricultural land for cropping – dependant on cropping type 			
	For moderate and high fragility watercourses impacted by the project (as defined by the NSW River Styles mapping (NSW, Department of Planning, Industry and Environment 2019)), maintain existing flow regimes and velocities as best as possible to preserve and minimise changes to the watercourses	No	Not Applicable	Not Applicable
	Critical infrastructure (including stations entries and tunnel portals) to have immunity against the probable maximum flood event	Yes	Construction is undertaken in a manner that minimises the potential for adverse flooding impacts.	Progressive erosion and sediment control plans to be implemented with appropriate controls for the level of risk. Station entrance is above the probable maximum flood event line and considered in Climate Risk Assessment during the design phase.
Long term impacts on surface water and groundwater hydrology (including drawdown, flow rates and volumes) are minimised	Groundwater availability and quality for water supply and environmental benefit (e.g., groundwater dependent ecosystems) is not affected beyond the requirements outlined in the NSW Aquifer Interference Policy	Yes	Construction is undertaken in a manner that minimises impact to the groundwater availability, Water Quality and Groundwater dependent ecosystems.	Surface and groundwater management will be undertaken throughout the delivery of the Project in accordance with the mitigation measures. The project avoids long term impact to the ground water.
	Structural damage to buildings, heritage items and public utilities and infrastructure, including the Warragamba to Prospect Water Supply Pipelines, from ground movement to be avoided	Yes	Construction is undertaken in a manner that minimises the potential for adverse impacts to the buildings, heritage items and public utilities.	Management of Public utilities, heritage items and infrastructures would be carried out throughout the delivery of the project in accordance with the mitigation measures listed in the ERAPs.
The environmental values of land, including soils, subsoils and	Contamination risks to human health and ecological receivers are minimised through	Yes	Any unexpected, contaminated finds would be managed in accordance with the SM	Management of soil and surface water will be undertaken throughout the delivery of

Environmental Performance Objective Topic	Environmental Performance Objective	Triggered in Staging Report	Target	Management Measure
landforms, are protected Risks arising from the disturbance and excavation of land and disposal of soil are minimised, including disturbance to acid sulfate soils and site contamination	effective management of existing contaminated land		Unexpected Finds Procedure and WHS guidelines.	the Project in accordance with the mitigation measures.
	Contaminated land and soil within the footprint of the project is remediated where required, to ensure the land is suitable for the intended future land use	Yes	Any soil waste is assessed, classified, managed and disposed of in accordance with the Waste Classification Guidelines (EPA, 2014)	
The project reduces the NSW Government's operating costs and ensures the effective and efficient use of resources Conservation of natural resources is maximised	The project achieves a minimum 'Design' and 'As built' rating score of Leading +75, using the Infrastructure Sustainability Council of Australia Infrastructure Sustainability Rating Scheme Version 1.2 or equivalent	Yes	As per TfNSW TSR, TfNSW SDGs will be implemented for this scale of project. As per the submission report ISCA is not required during the construction phase.	Sustainability initiatives will be incorporated in the design and construction of the project through the Sustainability Management Plan.
	Sustainability initiatives are incorporated into the planning, design and construction of the project	Yes		
	100 per cent of the greenhouse gas emissions associated with consumption of electricity during operation are offset	No		
	25 per cent of the greenhouse gas emissions associated with consumption of electricity during construction are offset	Yes		
The project is designed, constructed and operated to be resilient to the future impacts of climate change	The project is designed to withstand known impacts associated with climate change to year 2100	Yes	Climate change considerations will be incorporated in the design and construction.	Climate change workshops to be undertaken as SDG requirement. Design reports to include mitigation measures for construction and operation phases.
Conservation of natural resources is maximised	100 per cent of useable spoil is reused in accordance with the spoil reuse hierarchy	Yes	SDG and contractual requirement to achieve 100% beneficial reuse.	Spoil is to be reused dependant on waste classification undertaken and transported to approved reuse facilities / locations.
	A minimum 95 percent recycling target is achieved for construction and demolition waste	Yes	SDG requirements to achieve 94% beneficial reuse for Silver Target, and 95% requirement under LORAC contract.	Waste reuse opportunities in the project will be investigated and Off-site recycling options will be utilised.
	Products from recycled content are prioritised	Yes		
	The use of potable water for non-potable purposes is avoided if non-potable water is available	Yes	5% Use of Non-potable water for construction as per SDG Requirement.	Non-potable water is to be utilised where practicable on site

Environmental Performance Objective Topic	Environmental Performance Objective	Triggered in Staging Report	Target	Management Measure
	The reuse of water is maximised, either on-site or off-site	Yes		
Cumulative Impacts	Cumulative impacts are managed through coordination of construction activities and communication processes with nearby projects (Western Sydney International, M12 Motorway, The Northern Road, St Marys Intermodal and St Marys Commuter Car Park Expansion)	Yes	Cumulative impacts to be managed with coordination with the nearby projects.	Community Liaison Group will manage the cumulative impacts arising from the project.

8.0 References, Standards, Codes and Regulations

The works will be undertaken in accordance with relevant standards, codes, acts and regulations. For a register of legislative instruments applicable to the works, refer to Attachment D to this plan. Access to the latest Australian standards will be available via Laing O'Rourke's intranet.

9.0 Legal and Compliance Obligations

This section summarises mandatory compliance obligations and requirements relevant to the works and HSEMS outlines the process, Laing O'Rourke will use to determine legal and other mandatory requirements. All personnel associated with the Project will comply with all relevant requirements, including:

- Laws – acts, regulations and policies
- SSI approval and MCoAs
- Staging Report
- Revised Environmental Mitigation Measures (REMMs)
- Relevant industry standards and codes
- Contract requirements
- Sydney Metro – Western Sydney Airport Construction Environmental Management Framework (CEMF)
- Other compliance obligations outlined in this plan, including any voluntary compliance obligations. (See Attachment D for full list of relevant legislation)

For an assessment of the relevant legislative instruments, refer to Attachment D to this plan. Licences, permits and approvals are outlined in the permits and approvals register in Attachment G. The register must be finalised prior to the commencement of works to outline the full scope of required authority approvals.

The requirements associated with the register will be monitored and reviewed where there has been a change to relevant legislation.

Compliance conditions relating to items listed on the permits and approvals register are incorporated into this plan. Specific details and controls are included in Environmental Risk Action Plans (ERAPs) available in Attachment E. Copies of relevant permits, licences and development consents will be kept as controlled documents in Laing O'Rourke's document management system.

Any guidelines, protocols, standards or policies that are referenced in the terms of the approvals have been incorporated into Laing O'Rourke's operational controls include, but are not limited to:

- Sydney Metro - WSA Out of Hours Protocol
- Sydney Metro Unexpected Heritage Finds and Human Remains Procedure
- Laing O'Rourke Unexpected Contamination Finds Procedure
- Sydney Metro Exhumation Management Plan
- Acid Sulfate Soil Manual (Acid Sulfate Soil Management Advisory Committee, 1998)

- Storage and Handling of Dangerous Goods Code of Practice (WorkCover NSW, 2005)
- Sydney Metro - Construction Noise & Vibration Strategy
- Assessing Vibration: A Technical guideline (DEC, 2006)
- Managing Urban Stormwater: Soils and Construction Volume 1 (Landcom 2004)- Blue Book
- Waste Classification Guidelines EPA (2014)
- NSW: Acid Sulphate Soils Manual (EPA 1998)
- Photographic Recording of Heritage Items using Film or Digital Capture (NSW Heritage Office, 2006)
- How to prepare Archival Records of Heritage Items (NSW Heritage Office, 1998)
- ASINZS 4282:2019 Control of the obtrusive effects of outdoor lighting, relevant Australian Standard
- ASINZS 1158 – Lighting for Roads and Public Spaces
- Contaminated Land Guidelines (EPA, 2020)
- BS 7385 Part 2-1993 “Evaluation and measurement for vibration in buildings Part 2” as they are “applicable to Australian conditions”
- ISO 14001 Environmental Standard Guidelines
- Australian and New Zealand Guidelines for Fresh and Marine Water Quality
- Heritage Technical Note: Fixing methods at Heritage Site (2017)
- NSW Environment Protection Authority (EPA) Assessing Vibration: A Technical Guideline (DECC, 2006) (for human exposure)
- German Institute for Standardisation – DIN 4150 (2015) Part 3 (DIN4150:3) – Structural Vibration - Effects of Vibration on Structures.
- Australian Standard AS 2187.2 – 2006 “Explosives Storage and Use – Use of Explosives”
- Standards Australia AS 2436–2010 (AS2436) – Guide to Noise and Vibration Control on Construction, Demolition and Maintenance Sites
- Standards Australia AS1055–2018 (AS1055) – Description and Measurement of Environmental Noise

9.1 Project Approval

The SM AEW Footbridge St Marys project is assessed and approved under a Critical Significant State Infrastructure Approval (10051). The approval includes specific planning conditions and commitments that must be addressed in this plan and delivered throughout the works. Prior to the commencement of the project, an Environmental Impact Statement (EIS) was completed to assess impact to the community and environment in relation to the works for the Sydney Metro - Western Sydney Airport Project. Prior to the commencement of works, the construction footprint, including any temporary works and changes in scope, will be reviewed to ensure it remains within the approved boundaries. Any works outside of the approved boundary will be subject to

further assessment. Where the requirement of an additional environmental assessment is identified, this will be undertaken prior to the undertaking of construction activities in accordance with the Sydney Metro – Western Sydney Airport Construction Environmental Management Framework (CEMF) requirements for additional environmental assessments.

Project boundary changes may arise from design change requests, changes to methodology, altered access requirements, or the inclusion of additional work scope. Work outside the approved project boundary generally has not been assessed for environmental impacts and any associated impacts and is therefore not approved. A change to the approved project boundary is a Laing O'Rourke HSEMS hold point and must be formally released through the agreed project-specific processes before use of the additional area. Prior to implementing a project boundary change, the Project Leader must approve the change. Project Leader approval is required prior to contacting TfNSW.

The process for the documentation of the approved project boundary and a process for modification or change to the approved project boundary is outlined below.

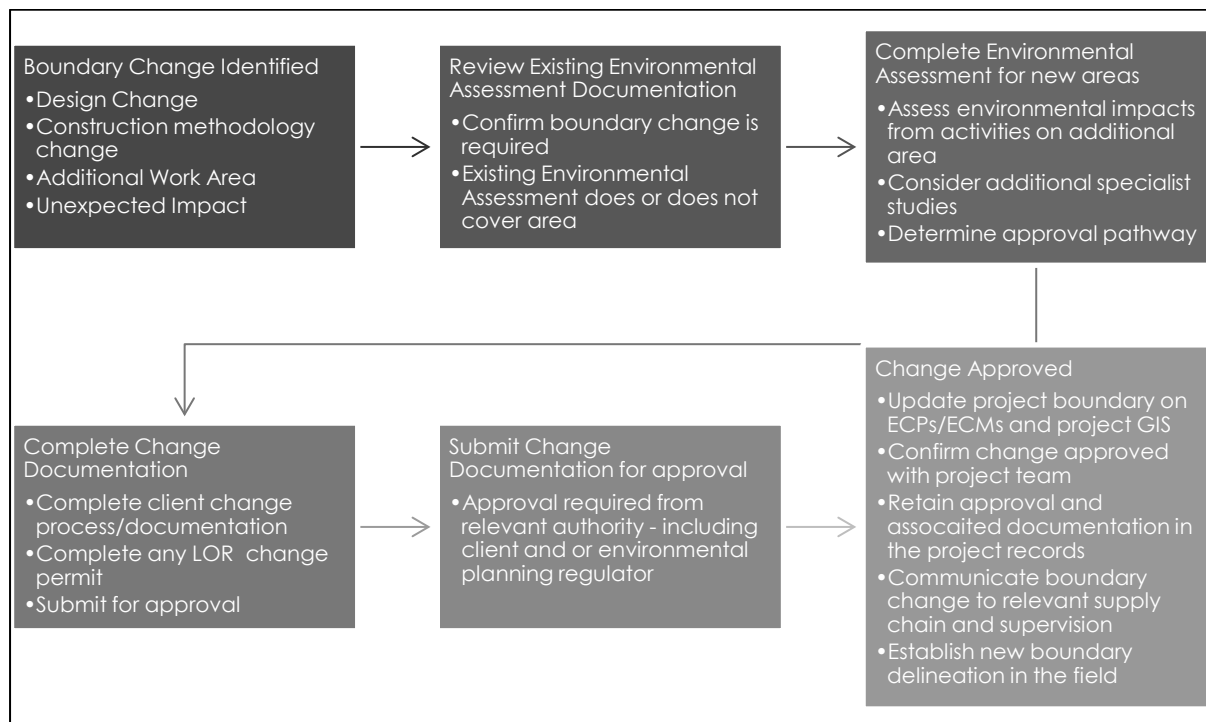


Figure 8 Process for modification or change to the approved project boundary

A Conditions of Approval Compliance Tracking Matrix (see Attachment O) will be established upon commencement to ensure the approval conditions are captured, addressed and closed out. The matrix includes all conditions relevant to the scope of work. The matrix will be updated as the works progress and reviewed as necessary to verify compliance with each condition. Specific conditions of approval relevant to construction activities are included in the ERAPs in Attachment E. Non-compliances with the conditions will be documented and addressed through INTELEX, Laing O'Rourke's health, safety and environment incident management system.

The project is carried out in accordance with all procedures, commitments, preventative actions, performance criteria and mitigation measures set out in the approval documents. In the event of

any inconsistency between the conditions of approval and approval documents, the conditions of approval will prevail to the extent of inconsistency. Where changes to the design, construction methodology or other refinements to the project are proposed, consideration is required as to whether the proposed changes are consistent with the project approval. Changes to approved projects will be managed in accordance with the relevant planning approval proponent and determining authority processes. Where pre-construction or minor works are proposed, details of such works will be addressed through the relevant planning approval proponent and determining authority processes. Laing O'Rourke will comply with all requirements or directions of the planning authorities in relation to any notification, documentation, audit, additional monitoring or mitigation measures or any compliance under the terms of the approval. Any documents that must be submitted to the planning authorities under the conditions of the approval will be submitted within a timeframe or within a later timeframe agreed with the planning authorities.

9.2 Planning Assessments and Approvals

The various planning assessments and approvals pertaining to the SM AEW Footbridge St Marys project is given below:

- Environmental Impact Statement (EIS) - dated 21 October 2020
- Submissions Report - Submitted April 2021
- CSSI (10051) Approval - Determined by Department of Planning, Industry and Environment
- Staging Report
- Revised Environmental Mitigation Measures (REMMs)
- Construction Environmental Management Framework (CEMF)
- Archaeological Design Report (ADR)

The requirements relevant to this CEMP are included in the Attachment O of this plan. A cross reference is also included to indicate where the conditions are addressed within this Plan or other Project management documents. As per SM AEW Staging Report, Laing O'Rourke will submit any strategies, plans or programs required by this approval on a progressive basis, within each stage of the CSSI.

9.3 Environment Protection Licence

Should it be determined that the initial project or subsequent projects or activities require an EPL in accordance with the *Protection of the Environment Operations Act 1997* (NSW) (POEO Act) Schedule 1, Laing O'Rourke will apply for and secure the required project/location specific Environment Protection Licence.

Additional conditions, obligations and mitigation measures will be included in this Construction Environmental Management Plan and associated documents as necessary.

No EPL is considered required for the Footbridge St Marys scope.

9.4 Review

A Conditions of Approval Compliance Matrix will be consistently tracked, analysed and updated as the work progresses and reviewed on a six monthly basis in conjunction with the independent audit. The conditions of Approval Compliance Matrix will be provided to Sydney Metro and the ER upon request to verify compliance with each condition. Specific conditions of approval

relevant to construction activities are included in the operational controls in the aspect specific ERAPs. Non-compliances will be documented and addressed internally via INTELEX in addition to being reported to Sydney Metro.

10.0 Environmental Risk Assessment and Control

Laing O'Rourke has established an Environmental Aspects and Impacts Register in accordance with the system requirements of our Environmental Management System. The register outlines the environmental aspects that must be assessed and effectively managed to meet the environmental obligations of the works.

The environmental risk and opportunity system requirement outlines the process by which environmental aspects and impacts are assessed. Project-wide environmental risks and opportunities are assessed in the overall Risk Assessment and Impacts Register (Attachment H). This assessment must consider at a minimum:

- Obligations and requirements associated with the environmental approval conditions
- Emissions and releases to air, water and land
- Waste management
- Contamination
- Emission of noise, including vibration
- Impact on the natural environment, including wildlife, biodiversity and cultural heritage
- Resource efficiency and the use of materials
- Consumption of energy.

The assessment for significant environmental aspects is based on the risk and opportunity assessment matrix in the Risk and Opportunity Register. Project risk and opportunity assessments are to be reviewed and updated as the works progress and at a minimum as part of the management review of this plan. The Risk and Opportunity Register is to be maintained monthly or as required and must include project-wide environmental risks and opportunities. Table 6 sets out the definitions that will apply to our environmental risk and opportunity assessment process and the associated matrix.

Table 6: Red, amber and green risk matrix

Risk	Details
Green	Environmental impacts associated with the action are generally constrained to the site and accord with the environmental assessment documentation. There is a low probability of occurrence.
Amber	Environmental impacts associated with the action have potential to result in offsite impacts, where the environment recovers over the medium term. There is reasonable probability that the impact will occur in the absence of suitable controls.
Red	Environmental impacts with significant offsite impacts. The environment recovers over the long term, and there are impacts on the local community. There is a high probability that the impact will occur. Environmental impacts occurring offsite are considered major. Impacts have resulted in the destruction of protected species,

Risk	Details
	sensitive habits or other impacts not envisaged as part of the environmental assessment process. The environment is not able to recover without substantial intervention.

ERAPs or environmental issue-specific sub-plans will be developed for aspects or impacts representing an amber or red risk after the initial risk assessment. The ERAP or sub-plan will reference and address the strategic mitigation and control measures determined following the initial risk assessment and as outlined in the relevant environmental primary standards.

In addition, an ERAP is required to be developed and implemented where an environmental obligation, environmental mitigation requirement or legal requirement dictates issue-specific controls are required despite a low risk to the environment. Activities, aspects and potential impacts considered to represent an extreme risk following the application of the strategic mitigation and control measures must be redesigned or re-sequenced or be approved by the General Manager or delegate. If additional risks are encountered on site during delivery, these will be addressed either by updating this plan or by using separate ERAPs.

Laing O'Rourke is committed to be consistent with the Sydney Metro – Western Sydney Airport Sustainability Plan and the Sydney Metro Environment and Sustainability Statement of Commitment (CEMF 3.1b vi), with all subcontractors to work under LORAC' EMS (CEMF 3.1c).

10.1 Severe Environmental Risk Controls

The Severe Environmental Risks (SERs) Controls Standard describes the various minimum mandatory requirements which must be in place, demonstrated and working effectively to manage severe environmental harm risks on the works as part of the HSEMS. Attachment F to this plan outlines severe environmental risks relevant to the works.

SERs relate to environmental harm caused by site operations which can result in long-term damage to the environment. The focus of these risks is on high-consequence environmental harm risks rather than regulatory exposure. The SERs Control Standard provides clear guidance on the required controls and expectations relating to preventing high-consequence environmental impact. The implementation and verification of the SERs Control Standard is in addition to the environmental inspection regime for the project. Additional SER controls are included as necessary to address site-specific conditions. Table 7 lists the SERs on the works as determined by the risk assessment.

Table 7: Applicable SERs

Standard SERs	Project relevant SERs
Air Quality and Dust	Air Quality and Dust
Biodiversity	Biodiversity
Biosecurity	Contamination Management
Contamination Management	Cultural and European Heritage
Cultural and European Heritage	Erosion and Sediment Control
Dangerous Goods Chemical Management	Noise and Vibration
Erosion and Sediment Control	Spoil and Waste Management

Standard SERs	Project relevant SERs
Ground Dewatering	
Groundwater Management	
Noise and Vibration	
Spoil and Waste Management	
Surface Water Management	
Temporary Waterway Structures	

- The required elements for the successful completion of the monthly SER activities are: 30/60/90 monthly workshop conducted with the project team. The engineers present up coming scopes of work. The works are discussed with the environmental team and assigned a risk rating. High risk activities and some medium risk activities may trigger a SER assessment to be conducted to ensure that the required critical controls are in place and working effectively.
- Monthly checks of field and system criteria in INTELEX or on the Severe Environmental Risk Assessment Tool
- Review of system-based controls for application and effectiveness within the bounds of this plan
- Monitoring activity frequency dependent on the programming of activities with the potential to cause high-consequence environmental impact and reflecting the current construction risk processes and methodologies. This will be defined in the 30/60/90 Day risk review process.
- Deeming of risks as managed and controlled when all aspects of the performance criteria are working effectively in all areas where the risk applies
- Designation of the absence of critical controls as a 'no go' and raising of actions to address no-go in the action-tracking system of INTELEX
- Monthly completion of the SER assessment and monitoring of SER outcomes during project reviews and captured in the INTELEX 30/60/90 forms.

The Severe Environmental Risks Assessment Tool is to be used as guidance for the implementation of the standard. The Severe Environmental Risks Control Adequacy Assessment Work Instruction defines the procedural requirements for completing the monitoring activities.

10.2 Hazard Identification and Risk Assessment Requirements

Laing O'Rourke will ensure that environmental hazards are identified, assessed, analysed and ranked using consistent methodologies. Hazard identification tools, Job hazard analysis (JHAs), Safe Work Method Statements (SWMS) and Job safety environmental analysis (JSEAs), must be used to identify and assess environmental hazards and controls before, and during the execution of activities on the works.

Risk assessments must incorporate an adequate consultation process involving key stakeholders and all relevant parties for comment. Environmental risks must be managed to as low as

reasonably practicable. The selection of controls must be aligned to the greatest practical extent to the hierarchy of controls.

Environmental risks must be updated at least annually, based on the nature of risk. Risk and controls must be reviewed following a significant event or when change occurs to capture lessons learned.

10.2.1 Planning for high–environmental risk activities

Worksite planning processes for high–environmental risk activities are outlined in the environmental planning system requirement of the Environmental Management System. Details of specific activities considered high-risk are provided in the system requirement. Additional activities may be identified in the environmental risk assessment.

For all activities with the potential to cause high-risk environmental impacts or which are nominated as high-risk activities by the environmental risk assessment, activity-specific method statements are to be developed and implemented.

The activity-specific method statement to address environmental–high risk activities may be combined with existing construction planning documentation. It is to be developed in consultation with the environmental team, engineering team and relevant workplace supervisors.

Prior to the commencement of the activity, the site team will be instructed on the key environmental risks and the required mitigation measures provided in the activity-specific work method statement to address high-risk activities. This also applies to supply chain partners operating on site. Supply chain partners involved in activities that represent a high risk to the environment are to address the requirements in their activity methodologies and method statements. Supply chain partners involved in these activities are to complete an environmental risk assessment workshop prior to the commencement of the activity.

10.2.2 30/60/90 Day Environmental Risk Review

The Laing O'Rourke 30/60/90 Day Environmental Risk Review Process has been developed to outline the approach for project level cyclical risk forecasting and management. The intent is to assess the environmental risks associated with activities over the full project lifecycle. The wider project team is to be involved such that environmental risks may be collectively managed. Wherever possible, meetings and collaboration activities to discuss environmental risks will be coordinated with other disciplines and their respective approach to risk forecasting and management.

The performance of the risk mitigation measures over the preceding 30 days should also be considered.

The steps associated with the strategy and approach for the 30/60 /90 day risk review are outlined below.

1. Contract program (i.e. P6 contractual program) is reviewed each month for environmentally high risk activities and or those that trigger the Severe Environmental Risk (SERs) protocols.
2. Update the project environmental risk assessment as necessary should previously unidentified risks, aspects or impacts be identified.
3. Consider the environmentally high-risk activities and identify proactive management measures and site assurance activities that are to be planned and completed to effectively mitigate the risk of the identified activities. Management measures would include additional training, toolbox talks, SER system review activities, development of activity specific method statements, reviews of SWMSs. Assurance activities may include SERs (system and field), additional site inspections, construction process audits
4. Identify high-risk environmental deliverables or submissions from the contract documents, licences and or environmental planning conditions. Develop plans to complete these deliverables accordingly, engaging other team members as necessary.
5. Update 30/60/90 day risk review form in INTELEX with planned activities, proactive measures and potential site assurance activities.
6. Include site assurance activities and SERs in the Project's HSE Activity Schedule. Ensure tasks are assigned to relevant members of the wider project team.
7. Site assurance activities should be completed / documented in INTELEX.
8. Review the effectiveness of the proactive management measures and assurance activities and their completion in terms of planned v actual.

Further details are provided in the Laing O'Rourke Environmental System Requirement Risk and Opportunity.

11.0 Training, Awareness and Competence

11.1 Induction

Requirements for environmental training, awareness and competence are outlined in the onboarding, training, induction and verification of competency (VOC) system requirement and this plan. All employees will receive suitable environmental induction and training to instil awareness of their responsibilities and ensure their competence to carry out the works. Environmental requirements will be explained to employees during site induction and ongoing toolbox meeting,

briefing, notification and other training. Environmental content will also be included in toolbox talks and pre-start briefings, with all training and toolbox meetings to be recorded. The three main forms of training will be primarily provided on site by the Environmental Manager, Environmental Advisor and the Safety Manager includes:

- Site Induction including roles and responsibilities
- 'Toolbox' Training, and
- Environmental Awareness training

Site Inductions will include the following:

- The purpose and objectives of the CEMP
- Contractor's environmental and sustainability policy (s) and key performance indicators
- Requirements of due diligence and duty of care
- Approval / licence conditions
- Site specific issues and controls including those described in the environmental procedures
- Potential environmental emergencies on the site and emergency response procedures (including locations and training in the use of spill kits)
- Reporting, notification and management requirements
- Communication protocols for interactions with community and stakeholders
- High risk issues and sensitive areas, including traffic impacts, noise and vibration impacts
- Site specific issues including the following:
 - Overview of the Environmental Control Maps (ECMs), including the key environmental constraints and control measures
 - Access requirements
 - Transport to and from site and parking
 - Flora and fauna management
 - Noise and vibration
 - Air quality
 - Weed management
 - Sediment and erosion management
 - Waste Management
 - Concrete management
 - Heritage management
 - Incident response and reporting
 - Unexpected finds

Additional specific targeted training workshops may be held on a case-by-case basis and will identify any sensitive receivers, cover all relevant environmental issues/risks identified within the Project's environmental risk assessment to minimise potential environmental impacts (for e.g. noise, vibration and heritage) and provide direction on the proper implementation and maintenance of environmental controls etc. These workshops (if required) will include representatives from Laing O'Rourke project team and relevant sub-contractors. These workshops will be coordinated by the Laing O'Rourke Environmental Manager / Advisor.

The Environmental Manager / Advisor may authorise amendments to the induction at any time. Amendments may be required due to project modifications, legislative changes or amendments to this CEMP or related documentation.

11.2 Environmental Training Requirements

A training needs analysis has been undertaken which identifies the competency requirements of staff that hold environmental roles and responsibilities as outlined in Table 8.

The Training Needs Analysis considered the following:

- Identifies that all staff are to receive an environmental training
- Identifies the competency requirements of staff that hold environmental roles and responsibilities documented within the Construction Environmental Management Plan and sub-plans
- Identifies appropriate training courses/events and the frequency of training to achieve and/or maintain these competency requirements
- Implements and documents as part of the CEMP a training schedule that plans attendance at environmental training events, provides mechanisms to notify staff of their training requirements, and identifies staff who do not attend scheduled training events or who have overdue training requirements

Table 8: Environmental training, awareness and competency requirements

Training	PM	Site Supervisor	Engineers	Env. Manager / Advisor	Community staff	Labour and sub contractors
Project Induction	✓	✓	✓	✓	✓	✓
Site Induction	✓	✓	✓	✓	✓	✓
Environmental Control Maps and ErSed controls	✓	✓	✓	✓		✓
Emergency response, reporting and incident response	✓	✓	✓	✓		✓

Records of induction and training will be kept on a database including the training carried out, dates, names and trainer details. Inductees will be required to sign-off that they have been informed of the environmental issues and that they understand their responsibilities.

11.3 Environmental Awareness and Toolbox Talks

Environmental awareness training will be provided within the project induction and to individuals or groups of workers with a specific authority or responsibility for environmental management or those undertaking an activity with a high risk or environmental impact.

Laing O'Rourke will conduct environmental awareness training before commencing construction and when new personnel commence work on the Construction Site as part of the Contractor's

Site Induction. LORAC will undertake refresher environmental awareness training as required, based on environmental risk assessment and turnover of project personnel.

To promote environmental awareness amongst the construction team, environmental toolboxes will be implemented. The Environmental Manager / Advisor will also review and approve the training program and monitor implementation as required.

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. Prior to commencing works in a new area of the site or activity, a toolbox include but not limited to:

- A description of the activity and the area;
- Identification of the environmental issues and risks for the area (including heritage);
- Outline the mitigations measures for the works and the area;

Toolbox talks will also be tailored to specific environmental issues relevant to upcoming works. Relevant environmental issues may include (but are not limited to);

- Noise and Vibration Management;
- Emergency and spill response;
- Unexpected finds, including potential contamination;
- Erosion and sedimentation control;
- Heritage management.

Environmental awareness training and Toolbox Talks 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 during construction.

12.0 Construction Controls

Activities and business processes with the potential to significantly affect our environmental performance must be identified, planned, and documented, and control measures must be implemented to ensure Laing O'Rourke's policy, objectives and compliance obligations are met.

Within the Environmental Management System, Environmental Primary Standards provide the operational controls necessary to meet compliance obligations. These standards have been developed from aspects, impacts and compliance obligations of the works. Additional LORAC and site-specific operational controls have been identified and included in the ERAPs and issue-specific plans. Collectively, these provide the framework for eliminating or minimising the risk of environmental harm, as well as creating opportunity for innovation and enhancing environmental benefits.

Specific Construction controls to manage environmental issues are defined in:

- Environmental Risk Action Procedures (ERAPs);
- SWMS, Environmental Work Method Statements (EWMS), JSEAs, hazard identification, construction risk assessment workshops (CRAWs), ITPs and check sheets (as appropriate);
- Work instructions (e.g. refuelling and servicing, exclusion zones on ECM).

Significant environmental issues identified in the risk assessment and impacts register in Attachment H to this plan will be controlled with ERAPs and issue-specific sub-plans as required.

Additional controls and criteria identified from compliance obligations (such as conditions of approval, environmental mitigation measures and contract requirements) will be established and maintained where the absence of such could result in failure to meet our environmental policy, objectives and targets.

12.1 Hold Points

Table 9 outlines activities which are not to proceed without objective review and approval by the nominated authority. These activities below are considered hold points and will be incorporated into the working plans for the works such as SWMS, work instructions, and construction methodologies. Proceeding past a specified hold point without authorisation represents a system non-compliance.

Table 9: Environmental hold points

Item	Hold Points	Acceptance criteria	Released by
Notification	Commencement of construction of FSM	The DPE, Liverpool City Council and Penrith City Council must be notified in writing at least seven (7) days before the commencement of each stage, of the date of the commencement of that stage.	Sydney Metro
Construction Environmental Management Plan	Construction activities (where other appropriate environmental management documents are not in place)	Site-specific Environmental Management Plan developed, reviewed, approved and endorsed by the ER	ER Endorsement Environmental Representative
Dewatering	Dewatering or pumping water	Water discharge criteria in consultation with EPA prior to this being permitted (in accordance with CoA - E130). Discharging to ballast only and not to stormwater will be carried out under this CEMP. Water pollution study to be undertaken if the need to discharge to stormwater becomes a requirement. Verification that water quality criteria have been met. Water tested to verify compliance and approval to discharge. Full details of the Water Discharge and Reuse process can be found in Attachment P.	Environmental Manager or Delegate
Out of hours work	Works to be carried out outside the standard hours	Noise Assessment, Out of Hours Permit, Out of Hours Works Protocol, Community Notification,	Environmental Representative

Item	Hold Points	Acceptance criteria	Released by
		DNVIS Approval as per CNVS (v4.3)	Endorsement and Approval
Sediment and erosion control measures	Construction activities involving ground disturbance	Sediment and Erosion Control Plans developed, reviewed, approved and implemented	Environmental Manager
Vegetation removal	Vegetation removal within the construction boundary	Clearing limits verified against the Project Approval environmental assessment, limits set out. Pre-clearing surveys and inspections for endangered and threatened flora and fauna species to be undertaken Trained ecologist to be present during the clearing of native vegetation or removal of potential fauna habitat where required	Environmental Manager, Qualified Ecologist/Arborist
Traffic Management	Construction activities involving traffic management Signage	CTMP developed and approved as per the CTMF and provided to DPE as per CoA E103 prior to construction commencing Wayfinding signage and project signage as per CoA A47	Project Manager, Construction Manager, SM WSA, DPHI
Use of local roads	Local roads usage by Heavy vehicles	Road Dilapidation report must be provided to the Relevant Road Authority(s) within three (3) weeks of completion of the survey and at no later than one (1) month before the road being used by Heavy Vehicles associated with the construction of the CSSI. The HVLR to be approved by DPE if the local roads not identified in the documents listed under condition A1 as per CoA E105 and E107	Local Council, TTLG, DPHI
Buildings	Construction identified as affecting buildings	Building Condition Survey as per CoA E84. Copies of Pre-construction Condition Survey Reports must be provided to the relevant owners of the items surveyed in the vicinity of the proposed work, and no later than one (1) month before the commencement of the work that	Nominated Appropriate professional

Item	Hold Points	Acceptance criteria	Released by
		could impact on the subject surface / subsurface structure.	
Spoil transport	Removal of spoil from site	Verification that the spoil has been classified and the disposal location can lawfully receive the waste Signage on spoil transportation vehicles	Project Manager, Environmental Manager
Heritage	Construction activities involving heritage items	Verification that heritage approval has been sought from the relevant authority prior to commencement as per CoA E19 – E36, REMMs and CEMF requirements	Environmental Manager
Non-Aboriginal Heritage	Unexpected non-indigenous heritage finds	Sydney Metro Unexpected Heritage Finds and Human remains procedure to be followed. Written Consent of the ER.	Environmental Manager
Aboriginal Heritage	Unidentified aboriginal objects of cultural significance discovered	Sydney Metro Unexpected Heritage Finds and Human remains procedure to be followed. Written Consent of the ER	Environmental Manager
Unexpected human remains	Unexpected human remains find	As per the Unexpected Heritage Finds and Human Remains Procedure in Attachment Q	Environmental Manager
Unexpected finds	Unexpected chemical and asbestos contamination finds	Inspection of the suspected contaminant by a qualified contaminated lands consultant	Health & Safety Manager
Project Boundary Change	Utilisation of additional areas or storage of material in areas outside the approved project boundary.	Verification that any additional environmental assessment has been completed and has been approved by the relevant authority (e.g. Minor Ancillary Facilities Checklist) and that the boundary change has been communicated to the site team and the supply chain via updated ECMs/ECPs or other suitable measure.	Project Leader Environmental Representative Endorsement and Approval

12.2 Environmental Controls Maps

Environmental Controls Maps (ECMs) will be prepared in accordance with Section 3.6 (c) of the Sydney Metro CEMF, to assist in the planning and delivery of the works. Specific to each site or work area, they outline the location of protection measures, monitoring requirements, conditions

of approval and environmentally sensitive areas and represent the practical application of the control measures. ECMs will be progressively reviewed and updated to ensure current works and changing site characteristics are addressed. This includes amending environmental protection measures where those identified do not ensure continuous compliance with environmental and compliance obligations.

ECMs will be approved by suitably qualified Environmental Manager prior to the commencement of the relevant works. The ECM is to be used in inductions, worksite set-up, and reviewing ongoing environmental performance, and is to be included as information in tender documents to subcontractors where applicable and in support of ancillary environmental approvals. The ECMs would be placed on site sheds or other central locations for reference by all project personnel.

All construction personnel and subcontractors undertaking a task governed by an ECM must participate in training on relevant ECMs and acknowledge that they have read and understood their obligations by signing off prior to commencing works on the specific activity. A copy of the LORAC Environmental Control Map for Footbridge St Marys AEW can be found on the project drive and is also displayed on site. ECMs will be updated as required and submitted to the ER for review.

The ECM will generally include:

- a. The worksite layout and boundary, including entry and exit points and internal roads and clearing limits;
- b. North point, legend, scale, names of roads and landmarks;
- c. Location of adjoining land use and nearest noise-sensitive receivers;
- d. Location and type of sediment and erosion control measures, including size and capacity of detention basins and wheel-wash facilities;
- e. Location of monitoring equipment (e.g. dust, noise, vibration monitors) and frequency of monitoring/inspections;
- f. Location of site offices;
- g. Location of spill containment and clean-up equipment;
- h. Location of worksite waste management facilities;
- i. Training and competency requirements of relevant workers;
- j. Contact details (including after hours) for key staff (including Environment Manager and Project Manager);
- k. Hours of work applicable to the worksite (including deliveries and any restrictions on high noise-generating activities);
- l. Construction Response Line number (1800 775 465);
- m. TfNSW Project Infoline (1800 684 490);
- n. Document control and approval details;
- o. Location of environmentally sensitive areas (e.g. threatened species, critical habitat, contaminated areas, or heritage zones);
- p. Vegetation and trees to be protected;
- q. Location of worker car parking and any parking restrictions;

- r. Location of known Indigenous and non-Indigenous heritage items;
- s. Location of stormwater drainage and watercourses leading to and from the worksite;
- t. Specific environmental management requirements from licences, approvals or permit conditions;
- u. Key environmental risk issues and the specific mitigation measures;
- v. Contours/elevation points and/or direction of slope/s;
- w. Location of concrete washouts.

These maps supplement any erosion and sediment control plans or other documentation that specify the location of environmental controls on site.

12.3 Design

Environmental design requirements are to be managed in accordance with the Environmental Design System Requirement provided in the HSEMS. As Laing O'Rourke is responsible for the completion of design activities and design risk and compliance obligations, these are to be included in the environmental risk assessment and the risk and opportunity assessment. The following environmental issues will be considered during the design phase:

- a. How to minimise any adverse impacts on the environment, including energy-efficient operation and incorporation of sustainable or recycled materials;
- b. How to improve design efficiency to conserve natural resources;
- c. Addressing the requirements of our sustainability agenda;
- d. Meeting or exceeding the environmental sustainability requirements of the contract;
- e. How to meet environmental codes, regulations and other requirements;
- f. Conditions of approval and development consent requirements;
- g. Mitigation measures outlined in the environmental assessments;
- h. Contractual environmental design requirements.

These issues should be considered, while taking into account the environmental, economic and social aspects of the works.

Design Execution Plans outline the environmental compliance requirements necessary for the works to meet environmental obligations. In particular, they will describe the specific design approach to minimising the impact of the works on the surrounding ecology, heritage, water, flora, fauna and atmosphere, carbon accounting and design environmental assessments.

Design Execution Plans are also meant to outline the environmental design review process and nominate the environmental resources required to ensure environmental compliance obligations are addressed during the design phase. Environmental compliance obligations are to be reviewed and verified at each design stage.

12.4 Procurement

The supply of goods and services by suppliers and subcontractors will be managed in accordance with our procurement and supply chain system requirements and business processes. In particular:

- a. Supply chain partners are to be evaluated for their ability to meet environmental obligations;
- b. Environmental issues should be taken into account when selecting subcontractors and suppliers and evaluated using the ITT Part 3 Supply Chain HSES Evaluation;
- c. Assessment of suitable contractors where there is the potential for impacts to heritage;
- d. Supply, subcontract and consultancy agreements must address the relevant environmental compliance obligations and outline the contractual requirements to be delivered by the supply chain through each scope of works and as outlined in the procurement and supply chain system requirement;
- e. Suppliers of chemicals and hazardous substances will be required to submit safety data sheets (SDS) with delivery or prior to chemicals arriving at site;
- f. Supply chain partners are to be required to nominate relevant environmental risks and proposed mitigation measures associated with their scope of work within their documentation. As a minimum, subcontractors' SWMS must address the environmental risks associated with their site activities;
- g. The environmental performance of subcontractors will be monitored during site inspections and in accordance with the obligations in their agreements and contracts.

12.5 Handling, Storage, Packaging and Transport

The handling, storage, packaging and transport of goods will be controlled in accordance with the procedure outlined in the quality management system. Dangerous goods and hazardous materials will be stored and handled in accordance with SDS and the requirements of the Australian Dangerous Goods Code. All hazardous substances are assessed and approved for use before being brought onto site.

The *Dangerous Goods (Road and Rail Transport) Act 2008* (NSW) includes specific requirements in relation to the transport of dangerous goods. Where dangerous goods are to be transported as a result of the works, the requirements of the Act must be complied with. In particular, regardless of the quantity, appropriate transport documentation must be included with each load unless a specific exemption exists.

Transport documentation must include:

- a. Project/workplace name, contact number;
- b. Transporter name, contact number;
- c. Transport date, origin and destination;
- d. Product name, classification, container type, quantity.

These materials will be stored in a safe area (e.g., bunded and/or store) which will prevent or contain accidental spillage and harm to the environment. Further details are provided in the Delivery and Storage of Chemicals, Fuels and Oils including Dangerous Goods requirements ERAP.

12.6 Manufacture, Construction and Fabrication Processes

Manufacture, construction and fabrication processes will be controlled in accordance with the quality management requirements for monitoring, workmanship, quality inspections and

commissioning. Requirements relating to manufacture, construction and fabrication processes may be defined in:

- a. Construction methodologies, SWMS and JSEAs;
- b. ITPs, Task Complete Checklists and associated documents;
- c. Contract documents;
- d. Environmental control procedures;
- e. Environmental Work Method Statements.

12.7 Plant and Equipment

Primary standard spill prevention includes requirements related to the fuelling and servicing of plant and equipment. Additional specific requirements and controls are included in the issue-specific sub-plans or ERAPs.

All plant and equipment owned associated with the works will be maintained in a safe and serviceable manner. In particular, the following requirements generally apply:

- Plant will be inspected prior to operation on site. Fuel lines, hydraulic hoses or other items with the potential to impact the environment are to be inspected. Items found to be worn, damaged or otherwise degraded are to be replaced prior to operation;
- Plant will be serviced, re-fuelled and washed down only in approved areas where hydrocarbons can be captured and then properly disposed;
- Fuelling will be carried out in bunded areas when fuelling from bulk tanks. If refuelling from mobile bowzers is carried out then it must be undertaken away from, and down gradient from, site boundaries and stormwater drains;
- Plant and equipment will be maintained to prevent or fix oil leaks;
- Plant will be driven and operated only in approved areas;
- Plant will have effective pollution control and sound attenuation devices fitted.

12.8 Construction Operational Controls

The following section provides an outline of the environmental controls to be implemented on the SM WSA AEW Footbridge St Marys Project. They have been developed from Laing O'Rourke's Environmental Primary Standards included in our HSEMS, project specific requirements and TfNSW and Sydney Metro - WSA specific requirements. Additional details and the mitigation measures are provided in the Environmental Risk Action Plans (ERAPs) in Attachment E to this CEMP. Where deemed necessary by the Environmental Manager and as a result of revisions to works scope or changes to project risks, additional ERAPs to control potential impacts will be developed. It is envisaged that additional ERAPs will be required as the programme developed to ensure environmental risks are mitigated.

The ERAPs in this Construction Environmental Management Plan substitutes the issue specific sub-plans, as sub-plans are not a requirement for this project under the Approval Conditions. Based on the residual risk level of the various environmental controls given the Attachment F (AEW risk context and risk assessment) of the Staging report for SSI 10051, the risk action plans for the environmental controls are determined and detailed in the Attachment E – ERAPs of this CEMP.

12.8.1 Noise and Vibration

As per Staging Report (CSSI 10051), Footbridge St Marys works have a potential to cause noise and vibration impacts on the surrounding community without controls due to the proximity of plant and equipment to residential areas, however these will be short-term and discrete pieces of work.

A lack of mitigation measures and management systems in relation to Noise and Vibration management leads to unreasonable impacts on residents and businesses, and structural damage to buildings or heritage items. Standard and project specific mitigation measures in accordance with the MCoAs and REMMs are included in the ERAPs in Attachment E to this plan.

12.8.2 Transport

Construction works may have a potential to cause temporary traffic, transport and parking impacts on the surrounding community without controls due to the requirements for lane closures, use of heavy vehicles, alterations to access and removal of parking.

Traffic will be managed in accordance with a standalone Construction Traffic Management Plan (CTMP) that is consistent with the Sydney Metro Construction Traffic Management Framework (CTMF), the HVLR, and traffic mitigation measures outlined in the SMWSA Submissions Report, Minister's Condition of Approval (MCoA) and REMMs for this project.

12.8.3 Air Quality Monitoring (Dust)

Ground disturbing works and the use of plant and light vehicles could mobilise dust in work areas, and due to the proximity of these works to residential and business receivers it is likely dust impacts would occur if air quality management and appropriate suppression procedures are not adopted. Management measures are contained in the ERAPs in Attachment E to this plan.

12.8.4 Erosion and Sediment Control Measures

FSM works are located within areas identified as being of environmental concern (AEC) as is outlined in the EIS, Chapter 16, Soils and Contamination. Lift shaft and escalator pits will be excavated to a depth of approximately 2.5-3m. Piling works will require excavations to a depth of approximately 18m. Utility works will progressively expose and backfill soil along the routes, limiting the risk of water quality impacts. While soil is exposed, rainfall has the potential to cause sedimentation to enter the into the adjacent stormwater systems.

Temporary water quality impacts may be caused due to spills, erosion and discharge of contaminated water. Construction works may increase quantities of sediment, which must be controlled as much as possible to reduce impacts on current public road surface areas and surface water drains.

A lack of mitigation measures and management systems in relation to soil and water management leads to unexpected pollution events, water quality impacts on adjacent water bodies, and soil erosion. Standard and Project Specific Erosion and sediment control measures are detailed in Environmental Risk Action Plan in Attachment E, describing measures to prevent sediment laden runoff from the site.

12.8.5 Contamination and Hazardous Materials (within soil)

As per the Staging report (Appendix F - Risk assessment), several areas of contamination have been identified at St Marys within the EIS documents for the CSSI 10051. Works will be undertaken within areas categorised as being areas of environmental concern (AEC) as is shown on the Environmental Control Maps (ECMs), Figure 7. A Sydney Trains facility building, a

north-south oriented stair with canopy and a single 33 person lift will be constructed within AEC 1. A temporary site compound will also be established within AEC 1, laydown/stockpile areas will be established partially within AEC 2. No works will occur within AEC 3A or AEC 3B. Potential contaminations sources within each of these AECs include the following:

AEC 1

- Former fuel, oil and chemical storage and use associated with historical wrecker's yard and associated potential workshops;
- Past use of hazardous building materials (impacts to soil);
- Off-site industrial land use including a former bus depot and plastic manufacturing businesses.
- 'Medium' overall risk

AEC 2

- Potential former fuel storage within Sydney Trains Emergency Response Depot;
- Former railway siding activities including historical spills of fuel and oils and stockpiling;
- Imported fill;
- Off-site up-gradient sources of groundwater contamination: former dry cleaners and service station in Phillip Street.
- 'High' overall risk

AEC 3A

- Potential former use of hazardous building materials.
- 'Medium' overall risk

AEC 3B

- Potential chemical storage for back-up generators and air conditioning units and potential use of ACM in plaza building. Historical demolition of former buildings containing hazardous building materials.
- 'Medium' overall risk

As per REMM SCI, for medium and high risk areas of environmental concern, detailed site investigations and/or review of further available information would be undertaken prior to the start of construction in those areas. In situ waste classification will be undertaken to determine the level of contamination in the construction footprint. The preparation of a detailed site investigation (DSI) to delineate potential contamination of St Marys Station beyond the construction footprint is unlikely to be triggered as part of the FSM works.

In accordance with REMM SC2, if a medium or high risk area of environmental concern is reassessed as low risk, the site would be managed in accordance with the Soil and Water Management ERAP in the CEMP. This would typically occur where there is minor, isolated contamination that can be readily remediated through standard construction practices such as excavation and off-site disposal. For areas of environmental concern that remain or change to medium risk, visual inspections and monitoring would be performed during earthworks. If suspected contamination is encountered, the materials would be subject to sampling and analysis to assess management requirements in accordance with statutory guidelines made or endorsed by the NSW Environment Protection Authority statutory guidelines as detailed below.

Excavated material

Spoil generated onsite will be beneficially reused on site, off-site, recycled or disposed of in accordance with the following hierarchical preference criteria:

1. Reuse on-site criteria

- The material is suitable for the final land use at the placement location in accordance with guidelines made or approved under the *Contaminated Land Management Act 1997* and would not cause pollution under the *Protection of the Environment Operations Act 1997*;
- The material meets engineering requirements for the placement location.

2. Reuse off-site criteria

- The material meets Virgin Excavated Natural Material or Excavated Natural Material definition but has potential for reuse and a Resource Recovery Exemption/Resource Recovery Order has been granted;
- Suitable off-site reuse locations have been identified and have necessary approvals to receive the material.

3. Recycling off-site criteria

- The material has value for recycling;
- Suitable off-site reuse locations have been identified and have necessary approvals to receive the material.

4. Disposal off-site criteria

- The material is classified as General Solid Waste, Restricted Solid Waste, Special Waste or Hazardous Waste;
- Appropriately licensed waste management facilities have been identified and have necessary approvals to receive the material.

Contaminated and/or excess material which cannot be beneficially reused on-site, will be temporarily stockpiled at the locations shown on the ECMs, covered with geofabric, sampled and will undergo laboratory analysis by a suitably qualified environmental consultant.

Contaminated and/or excess material Excess material will then be classified in accordance with the NSW EPA Waste Classification Guidelines (2014).

Medium risks could potentially arise, in unexpected pollution events, water quality impacts on adjacent water bodies and soil erosion in the absence of mitigation measures and management systems in relation to soil and water management. Some work elements may also require removal of existing infrastructure and trenching or excavation activities that may encounter unexpected finds, such as asbestos-containing materials (ACM), fill or waste material, chemicals and other hazardous materials or contaminated soils. These must be considered when planning works within these areas. Excavations and soils material will be monitored and assessed under the unexpected finds procedure described in section 12.8.11 of this plan. Where required, pre-sampling, surveying and investigation works will be carried out in accordance with current legislative guidelines endorsed by the NSW Environment Protection Authority. If previously unidentified contamination is found within the site, Sydney Metro and/or the Environmental

Representative to notify the EPA in accordance with the EPA's Guidelines on the Duty to Report Contamination under the Contaminated Land Management Act 1997 (EPA, 2015).

If in situ waste classification identifies remediation is required to make land suitable for the final intended land use, a Remedial Action Plan will be prepared, or reviewed and approved by suitably qualified consultants. The consultants will be certified under either the Environment Institute of Australia and New Zealand's Certified Environmental Practitioner (Site Contamination) scheme (CEnvP(SC)) or the Soil Science Australia Certified Professional Soil Scientist Contaminated Site Assessment and Management (CPSS CSAM) scheme. The Remedial Action Plan would be prepared in accordance with relevant guidelines made or approved by the EPA under section 105 of the *Contaminated Land Management Act 1997* (NSW) and would include measures to remediate the contamination at the site to ensure the site will be suitable for the proposed use when the Remedial Action Plan is implemented.

Before commencing any potential remediation works, a Section B Site Audit Statement(s) would be prepared by an NSW EPA-accredited Site Auditor that certifies that the Remedial Action Plan(s) is/are appropriate and that the site can be made suitable for the proposed use. The Remedial Action Plan(s) would be implemented and any changes to the Remedial Action Plan(s) would be approved in writing by the NSW EPA-accredited Site Auditor. When remedial works have been completed, a Validation Report will be prepared in accordance with Consultants Reporting on Contaminated Land: Contaminated Land Guidelines (EPA, 2020) and relevant guidelines made or approved under section 105 of the *Contaminated Land Management Act 1997* (NSW). After the Validation Report has been prepared, a Section A1 or Section A2 Site Audit Statement (accompanied by an Environmental Management Plan) and its accompanying Site Audit Report, which state that the contaminated land disturbed by the work has been made suitable for the intended land use, will be submitted to the Planning Secretary and Penrith City Council after remediation and before the commencement of operation of the CSSI.

12.8.6 Heritage Management

St Marys Railway Station group is listed on the NSW State Heritage Register (SHR) (#01249), Rail Corps Register and Penrith Local Environmental Plan (LEP) 2010 as having state significance. The Goods Shed heritage element is considered of exceptional significance near the work location. The Footbridge St Marys works lies within in the State heritage curtilage, that imposes high risk to the heritage items associated within the area. However, the work would be undertaken in a manner that does not create an impact to the Goods Shed and the Jib Crane. A lack of mitigation measures and management systems in relation to Heritage Management leads to poor integration of heritage values in design and impacts on heritage items outside of what has been approved.

Items and locations that have potential heritage value will be managed in accordance with the relevant CoA, and REMMs and could be managed through the Sydney Metro Unexpected Heritage Finds procedure. Heritage Management procedure for the Footbridge St Marys works is given in Attachment Q of this CEMP. Archaeological zones around the Goods Shed and no-go zones for intrusive works as per the Archaeological Research Design Report. Additional mitigation measures for built heritage management including input into design development and Non-Aboriginal archaeological management are addressed in sections 4.2 and 4.3 respectively of the Heritage Procedure in Attachment Q.

12.8.7 Biodiversity Management

Section 8.9.3 of the EIS Vegetation clearing states : *For the purposes of this Environmental Impact Statement it has been assumed that all vegetation within the construction footprint would be removed. This assumption ensures the assessment of impacts to vegetation is representative of a worst case scenario. However, there may be opportunities to retain some vegetation within parts of the construction footprint and this would be confirmed by the construction contractor(s) when appointed.*

A lack of mitigation measures and management systems in relation to biodiversity management leads to unreasonable impacts to flora and fauna, spread of weeds and pathogens, and unintended vegetation clearance. Standard and project specific mitigation measures for biodiversity management would be undertaken if required. The Footbridge St Marys works would be undertaken in a manner that does not impact the existing large Fig tree next to the jib crane on Station Street.

Vegetation Removal is a Hold Point. Removal or trimming of native vegetation will be carried out with prior approval from SMWSA by completing SMWSA Pre-Clearing inspection for native vegetation removal approval form as per the Flora & Fauna Response Procedure in Appendix K.

The Environmental Risk Action Procedure (ERAP) in Attachment E details the Biodiversity Management measures.

12.8.8 Bush Fire Management

Few street trees are located in the construction footprint and no risk of bushfire were identified in the Staging report – Appendix F Risk Assessment. Bushfire management plan is not a requirement for this project under the approval conditions.

However, Laing O'Rourke's Environmental Management system identifies few key risk mitigation measures for Bushfire that includes:

- Development of Emergency Response Procedures across the Program for bushfire management;
- Protocols to manage requirements during total fire bans;
- Inclusion of risks and requirements relating to bushfires in the induction;
- Proscription of driving on grass and vegetation to be retained, keeping site vehicles on designated haul roads and site access roads;
- Maintenance of 'good housekeeping' to ensure combustible waste materials are placed in the appropriate bins on site;
- Availability of sufficient onsite firefighting equipment in the form of extinguishers for immediate response and in high-risk areas;
- Availability of onsite dust suppression water carts for additional firefighting should the need arise.

12.8.9 Material Tracking System

A material tracking system (MTS) will be in place and maintained on-site with data and records available by request. Material tracking will be required for all materials which are excavated, re-used or removed from site as part of the construction activities.

All materials brought to site and transported off-site will be recorded quantitatively, quantifiably and spatially. This includes all stockpiling and placement of materials (clean or contaminated) on-site or those being removed off-site.

The minimum details for all incoming materials and excavated soil, in addition to paperwork indicating the environmental condition and positive suitability of any delivered soil, include:

- Details of areas of excavated soil, including location, weed or contamination classification, actual volumes, dimensions, and date removed;
- Details of location where soil or material is stored and where the material has been finally placed, including volumes;
- Details of any treatment or identification undertaken on-site;
- Weighbridge dockets and receipts from receiving locations;
- Reference to analytical results, including quality control results and waste classification category if available.

12.8.10 Construction Waste and Resource Management

The waste management procedures implemented for this project will be in accordance with the CoAs, REMMs and CEMF (Section 14.1). Laing O'Rourke will maintain compliance with standard waste management procedures, as per the CEMP ERAPs as well.

A summary of the proposed mitigation measures is given in Waste Management ERAPs – Attachment E of this plan. As per CEMF (14.1a), Construction waste will be managed through a waste hierarchy established to comply with the Waste Avoidance and Resource Recovery Act 2001, which comprises the principles set out in Table 10.

Table 10: Waste hierarchy principles

Level of Avoidance	Acceptance Criteria
Avoidance of waste	Minimise the amount of waste generated during construction by avoiding unnecessary resource consumption (i.e. avoid the use of inefficient plant and construction equipment and avoid materials with excess embodied energy, waste and excessive packaging).
Resource recovery	Re-use, reprocess and recycle waste products generated during construction to minimise the amount of waste requiring disposal.
Disposal	Where resources cannot be recovered, dispose of them appropriately to minimise the potential adverse environmental impacts.

As per the CEMF (Section 14.1b) requirement, the established targets for the recovery, recycling or reuse of construction waste, and beneficial reuse of spoil for this project is given below:

- A minimum of 95% recycling of construction and demolition waste to be achieved as per TfNSW Standard Requirements (Work contract);
- 100% reuse of beneficial spoil to be achieved as per the TfNSW Sustainability Design Guidelines requirements for this scale of project.

The Waste and spoil management measures to be implemented throughout the project is given in Waste Management and Spoil Management ERAPs in Attachment E of this CEMP.

12.8.11 Unexpected Finds

Unexpected Contaminated finds procedures for the project have been established for specific aspects associated with the SM WSA AEW Footbridge St Marys works. LORAC's Unexpected Contaminated find procedure is given in Attachment J, in accordance with CoA E98). Specific details are provided below.

12.8.12 Asbestos

ACM may be present in various works areas, including underground services such as information communications technology (ICT), potable water, pipes and inspection pits. All areas which identify asbestos are to be reported to the area supervisor, environmental team immediately upon discovery through the reporting portal procedure. We will coordinate checks and surveys for asbestos and its removal prior to commencing works to ensure it does not represent an environmental and human health risk.

Key asbestos mitigation and management strategies that will be considered and implemented for any discovery throughout the works include:

- Engaging a licenced and certified subcontractor to survey all work areas prior to works commencing;
- Administering asbestos awareness training in the procedural protocols of asbestos identification for workers;
- Stopping works and contacting the appropriate HSE and construction personnel to manage the situation and commence an investigation if asbestos is identified in, for example, buildings, pipes, pits, or soil matrix;
- Engaging a Licensed Asbestos Assessor contractor to investigate, sample and identify the presence and type of asbestos where required;
- An Asbestos Removal Control Plan (ARCP) would be prepared by a Licensed removal contractor if required;
- Asbestos waste must be classified as Special Waste and it cannot be reused or recycled. Asbestos waste can only be transported to and disposed off at appropriately licensed waste receiving facilities. Any engaged asbestos transporters and facilities receiving asbestos waste in NSW weighing more than 100 kilograms, or consisting or more than 10 square metres of asbestos sheeting in one load must track and report this waste to the EPA using WasteLocate.
- Ensuring no works proceed or continue in the area until clearance and authorisation is given from Licensed Asbestos Assessor through that area, has been cleared, and it is safe to proceed.

12.8.13 Heritage and Artefacts

Heritage management procedure developed by the heritage consultant specific to this St Marys Footbridge St Marys works given in Attachment Q and Sydney Metro Unexpected Heritage finds protocol will be followed for this work to assess and manage the discovery of artefacts of historical significance, heritage or archaeological value on the works.

Heritage and artefact mitigation and management strategies that will be implemented throughout the construction sites or works areas and the unexpected finds procedure for heritage related issues is detailed in Attachment Q of this plan.

12.8.14 Contamination

Soil or groundwater on the works may be contaminated by substances such as heavy metals, hydrocarbons, phenols, Per- and Polyfluoroalkyl Substances (PFAS), or polychlorinated biphenyls (PCBs). Management of known contaminated material will be coordinated prior to and during works to ensure it does not represent an environmental or human health risk.

Key contamination mitigation and management strategies that will be implemented throughout the construction sites and works areas for known or unexpected finds include:

- Stopping works if any visible or odorous contaminated material or soils are identified and informing appropriate HSE personnel to manage the situation;
- Inspection of the suspected contamination has to be carried out by a qualified contaminated lands consultant (verification by a certified contaminated land practitioner);
- Collection of soil and groundwater samples for chemical or asbestos analysis, where required, based on observations;
- Administering contaminated soil and material awareness training for personnel to familiarise them with the procedural protocols to follow should contaminated material be identified;
- Engaging a subcontractor to investigate and remediate the identified area;
- Developing and designing an investigation in accordance with current contaminated site guidelines (NSW), including the methodology, sample technique, sample density, contaminants of potential concern (CoPCs), and nominated laboratory;
- Conducting and assessing each investigation on a case-by-case basis to provide a pragmatic environmental solution which does not cause additional harm to or impact on the environment;
- Collecting in the correct receptacle, labelling with the correct nomenclature, and attaching all samples to be assessed and analysed by a National Association of Testing Authorities (NATA)–accredited laboratory;
- Assessment of results against applicable land use or waste classification criteria in accordance with statutory guidelines made or endorsed by the NSW Environment Protection Authority statutory guidelines;
- Reporting all findings in accordance with the guidelines, with appropriate remedial solutions developed (if required);

- Management of the contamination in accordance with statutory guidelines made or endorsed by the NSW EPA statutory guidelines;
- All inspections, investigations and remediation would be undertaken by a qualified contaminated lands consultant with reports prepared or reviewed by a Certified Contaminated Land Consultant;
- Developing a Spoil Management Plan, as required, subject to volume, to remove and dispose of known and unexpected finds of contaminated material in accordance with contaminated sites and waste disposal guidelines (NSW);
- Ensuring no works proceed or continue until approval and authorisation is given from relevant authority that the area has been cleared.

12.8.15 Stockpile and Laydown Areas

There are various stockpiling and laydown areas proposed for use throughout the duration of the project. These areas may be utilised for temporary spoil storage and for temporary storage of materials to be used during construction. To establish these areas, security fencing will be placed around each area. Impervious geo-fabric will be placed on the ground where stockpiles are to be placed and sediment control fences will be implemented around each stockpile location.

The proposed laydown and stockpile areas have the potential to cause localised impacts such as dust, potential leaching of contaminated soil and sediment laden runoff if not appropriately managed. To mitigated against such potential impacts, the following ERAPs contained in Attachment E will be implemented during the management of stockpile and laydown areas:

- Air Quality and Dust Management;
- Waste and Resources Management;
- Spoil Management;
- Soil and Water Quality Management;
- Biodiversity Management

The stockpile and laydown areas as shown on the ECMs in are located within or adjacent to the construction boundary as defined in Chapter 8 of the EIS. Two of the stockpile and laydown areas are partially located within the St Marys Railway Station heritage listing in the Penrith Local Environment Plan 2010 as is identified on the ECMs, Figure 20. Both of these areas, which will be temporarily utilised during construction, will not impact upon the heritage elements of St Marys Railway Station as is documented in the Heritage Management Procedure (Attachment Q).

The main FSM site compound and laydown area as approved under the EIS will be established at Harris Street. Further Minor Ancillary Facilities (Laydowns 1-5 and 2 Harris Street) have been approved under Minor Ancillary Facilities Checklists. A description of how the proposed stockpile and laydown areas comply with each requirement of MCoA A22 is provided in the Ancillary Facilities Assessment.

Should any further ancillary facilities be required LORAC will submit the necessary assessment to TfNSW and the ER. Future ancillary facilities would be approved in accordance with A17 or A22.

MCoA A17 requires that certain criterion are met in order for minor ancillary facilities checklists to be utilised during construction as follows:

Ancillary facilities that are not identified by description and location in the documents listed in Condition A1 can only be established and used in each case if:

- (a) they are located within or immediately adjacent to the Construction Boundary of the CSSI; and*
- (b) they are not located next to sensitive land use(s) (including where an access road is between the facility and the receiver), unless the landowner and occupier have given written acceptance to the carrying out of the relevant facility in the proposed location; and*
- (c) they have no impacts on Heritage items (including areas of archaeological sensitivity), threatened species, populations or ecological communities beyond the impacts approved under the terms of this approval; and*
- (d) the establishment and use of the facility can be carried out and managed within the outcomes set out in the terms of this approval, including in relation to environmental, social and economic impacts.*

Note: This condition does not apply to any ancillary facilities or work that are exempt or complying development, established before the commencement of construction under this approval or minor ancillary facilities established under Condition A22.

MCoA A22 requires that certain criterion are met in order for minor ancillary facilities checklists to be utilised during construction as follows:

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

- (a) are located within or adjacent to the Construction Boundary*
- (b) Have been assessed by the ER to have:*
 - i. Minimal amenity impacts to surrounding residences and businesses, after consideration of matters such as compliance with the ICNG, traffic and access impacts, dust and odour impacts, and visual (including light spill) impacts, and*
 - ii. Minimal environmental impact with respect to waste management and flooding, and*
 - iii. No impacts on biodiversity, soil and water, and Heritage items beyond those already approved under other terms of this approval.*

12.9 Cumulative impacts

Noise, air emissions and visual changes generated due to construction activities, construction traffic and redistribution of traffic, affect the amenity for the nearby residents and reduce the overall liveability and attractiveness of the area causing inconvenience, changes to lifestyle, disruption to daily life and activities. The cumulative impacts in interface zones where two contractors are working in adjacent areas will require effective coordinated management and consultation, particularly in regards to out of hours works.

Combined amenity impacts are likely to occur in residential areas adjacent to construction activities and construction compounds. However, different people would perceive amenity impacts differently. Vulnerable groups living close to construction activities would be more sensitive to change in amenity. These include older people, children, people with a disability or special needs, or people with medical conditions.

Consultation with, and the provision of information to, the surrounding community is regarded as a major factor in controlling the negative reaction to the inevitable noise and other potential impacts emanating from the construction site. Through mitigation and management measures detailed in the Project management plans, the Project team will effectively manage interfaces

and coordinate with road authorities, RTOs, councils, and other projects to minimise disruption to transport networks, businesses and the broader community and support consistent messaging. We recognise that stakeholders, businesses and the community will be sensitive to engagement and construction fatigue over the life of the Project, and we will regularly review processes, materials and activities to ensure they remain effective in communicating project information, eliciting feedback and building support for the Project.

To address specific sensitivities of residents to visual, noise and air quality amenity impacts during construction, a Community Liaison Management Plan (CLMP) has been developed. The plan details how residents would be engaged before and during construction so as to inform them of project activities and provide a feedback mechanism for residents. The CLMP can be found on the project server.

Cumulative construction impacts and the interface of SM-WSA projects are also discussed in ongoing monthly meetings with projects that are under construction at the same time

13.0 Emergency Preparedness and Response

Attachment I to this plan sets out the types of environmental emergencies which could occur on site. In the event that one or more of these environmental emergencies occurs, we will take the following steps:

- Immediately report all incidents to the Environmental Manager, Project Manager and Construction Manager, who will assess the situation and manage the subsequent steps;
- Immediately take all reasonable steps to contain further damage or danger to personnel, public, property and the environment;
- Inform relevant authorities in accordance with the regulatory requirements provided in section 17.3 of this plan;
- Contact emergency services personnel such as the fire department or spill clean-up services as necessary, as well as the site emergency response team;
- Notify the General Manager and Leadership Team immediately via telephone and email. The General Manager will arrange for notification to the non-owner participants senior leaders as necessary;
- Inform the Sydney Metro WSA and Environmental representative as necessary and in accordance with contractual and approval requirements;
- Complete a detailed report of the incident using INTELEX;
- Liaise with the Sydney Metro WSA and Environmental Representative regarding corrective and preventative actions required and the timeframes within which these actions must occur;
- Undertake the corrective and preventive actions.

Information on the handling of hazardous materials will be contained in the SDS, and emergency services contact numbers are to be displayed in the main site office. The emergency response process is to be periodically tested via an environmental emergency drill at intervals not exceeding 12 months.

The project has established and documented a Trigger Action Response Plan (TARPs) provided in attachment S. The TARPs define the minimum set of preventative actions required by site

personnel in response to unpredicted impacts or deviation from a defined set of weather conditions.

Specific system requirements related to environmental emergencies are outlined in the emergency planning and response and risk and opportunity system requirements

13.1 Site shutdown planning

Site shutdown periods must be planned and coordinated to minimise the risk of environmental impact. Shutdown periods are considered to be any period in which construction activities are not planned to take place on the site for more than three consecutive days. This includes public holiday and rostered day off (RDO) periods. Site shutdown planning must be undertaken in accordance with environmental planning system requirement. Planning activities must ensure that inspections, resources and contingency measures are agreed and implemented for the shutdown period. This is to be documented in a specific Site Shutdown Strategy.

The Site Shutdown Strategy will include the following:

- Shutdown-specific environmental risk assessment;
- Additional site-specific controls for the shutdown period;
- Resources, including plant, equipment and materials for the period;
- Roles and responsibilities for personnel on call during the shutdown period, including the nominated inspection and monitoring regime;
- Emergency response procedure and communication protocols.

14.0 Records

Document control requirements associated with the HSEMS will be implemented in accordance with the procedure Document Control – Records and Filing. Laing O'Rourke's record management system allows for ready access to the environmental information necessary for compliance with section 7.5 of the AS/NZS ISO 14001 Standard. This may include hardcopy folders, server-based electronic systems, and/or proprietary document management systems.

Environmental records generated on the works will be retained in our document control system, which will also house the current revisions of environmental documents, records and data. The Environmental Manager is responsible for maintaining all environmental management documents and records as current at the point of use. Types of documents and records relevant to the works include:

- Site inspections, audits, monitoring, reviews or remedial actions;
- Documentation as required by performance conditions, approvals, licences and legislation;
- Modification to site environmental documentation (e.g. CEMP, Procedures and ECM);
- Correspondence with public authorities and stakeholders;
- Induction and training records;
- Reports on environmental incidents, other environmental non-compliance non-compliances complaints and follow-up actions;
- Community engagement information;

- Minutes of CEMP and EMS review meetings and evidence of any actions taken;
- Other records as required by the CEMF, CoAs or contractual requirements.

All environmental management documents are subject to ongoing review and continual improvement. This includes times of change to scheduled activities or to legislative or licensing requirements. Only the Environmental Manager has the authority to change any of the environmental management documentation.

Individuals with responsibilities for work packages or supply chain packages are responsible for the proper maintenance and upkeep of the record management system to ensure:

- Files and records are kept up to date;
- Records are not lost, damaged or inadvertently destroyed;
- Records are maintained in accordance with contractual, statutory requirements and timeframes;
- Objective evidence of compliance with environmental requirements is kept;
- Records are filed in accordance with Document Control – Records and Filing;
- Records will be accessible onsite for the duration of works;
- Records would be available in a timely manner to the clients upon request and would be retained for a period stipulated by the clients;
- Records are to be retained for no less than 7 years (CEMF 3.18);

15.0 Auditing

Auditing of the EMS and project compliance will be carried out in accordance with the CEMP, CoAs, REMMs, CEMF and internal LORAC EMS requirements. We anticipate the works to be audited within three months of commencing on site and approximately every six months thereafter, and in accordance with Laing O'Rourke's audit schedule. The General Manager, in consultation with the Management Team, will decide on the frequency, scope and timing of site audits in accordance with the requirements of the contract and relevant governance procedures.

An audit report will be issued to the Environmental Manager, Construction Manager and Project Leader for action. The audit report can also be submitted to Sydney Metro and the ER upon request. Actions will be followed up for close-out within one month of the issue of the audit report. The client will undertake audits during the various stages of delivery.

Audits and associated actions will be captured within the assurance application in INTELEX.

Independent Audit Reports and the Proponent's response to audit findings is to be submitted to the Planning Secretary within two (2) months of undertaking the independent audit site inspection.

Independent audits of the CSSI will be conducted and carried out in accordance with the Independent Audit Post Approval Requirements (DPE, 2020), as follows:

- Within 12 weeks of the commencement of construction;
- At intervals, no greater than 26 weeks from the date of the initial Independent Audit or as otherwise agreed by the secretary.

Whether an independent audit of the Footbridge St Marys works will be conducted will be dependent on timing and stage of the works.

LORAC will participate as required with Independent Audits of the Project in accordance with CoA A36. These audits will be instigated and coordinated by Sydney Metro WSA as the Proponent of the project. LORAC will participate as required in accordance with Sydney Metro WSA's audit program in accordance with CoA A37.

Based on the duration of the Project (it is envisaged that the works will go for up to 30 months) an internal audit will be undertaken within three months of commencing construction.

Subsequent audits will be undertaken every six to 12 months. The purpose of audit is to verify compliance with:

- Compliance with any approval, permit or licence conditions;
- Compliance with the HSEMS, SMP, CEMP and procedures;
- Community consultation and complaint response;
- Environmental training records; and
- Environmental monitoring and inspection results.

The internal audit scope will focus on activities of high environmental risk. An audit checklist will be developed and amended as necessary to reflect changes to this CEMP, subsequent approvals and changes to Acts, regulations or guidelines. In addition, SM-WSA will undertake periodic audits of the CEMP and compliance with the environmental aspects of contract documentation, including this CEMP.

16.0 Review and Approvals

In accordance with Section 3.19 of the CEMF, formal management reviews will be undertaken as part of the continual improvement process, at minimum annually. The Environmental Manager will review the CEMP, Environmental Procedures, Conditions of Approval and mitigation measures, and implementation within 20 days of the commencement of construction. Between the scheduled reviews, a register of issues will be maintained to ensure that any issue raised by internal and external personnel associated with the Project is recorded.

The purpose of the review is to ensure that the system is meeting the requirements of the standards, policies and objectives and, if not, to amend the CEMP to ensure compliance. The review will be held more frequently if:

- Issues arise during environmental surveillance and monitoring;
- Response to environmental incidents and non-compliances;
- There is a change in scope/program;
- If a series of community complaints are received;
- Unexpected finds are encountered;

The review will consider the following:

- Client comments;
- Agency comments;
- Complaints;
- New environmental assessments or updated risk assessments;
- Effectiveness of environmental management documentation implementation;
- Potential improvements to the environmental management documentation;
- Adequacy of resources;

- Findings of audits;
- Environmental objectives and targets;
- Environmental performance;
- Compliance with legal and other requirements;
- Critical Non-compliance or repeated Non-compliances;
- Organisation changes;
- Effectiveness of training and inductions.
- Comments and reports from the ER.

The outcomes of the review could include amendments to this CEMP and related documentation, revision to the Project's environmental management system, risk assessment review, re-evaluation of the Project objectives and targets as well as feeding into other Project documents. A formal review of the management systems by the LORAC Senior Management Team will also occur on a biannual basis. This review shall generate actions for the continual improvement of the systems.

17.0 Monitoring, Measurement and Reporting

Key characteristics of the operations and activities with a significant impact on the environment will be regularly monitored and measured. This will include:

- Recording information to track performance;
- Monitoring environmental controls;
- Monitoring level of conformance/compliance with objectives and targets.

17.1 Assurance Framework and Compliance Monitoring

Compliance with environmental requirements, including project conditions, commitments and relevant mitigation measures from the Sydney Metro-WSA CEMF, CSSI approvals, EIS, REMMs, REF approvals, determination reports and EIA Checklists will be tracked.

Monitoring and auditing requirements across the works will be addressed through our environmental assurance framework. Implementation of the framework will demonstrate that the Sydney Metro Enabling Program is being delivered in accordance with the environmental requirements, policy and expectations. Summarised in Table 11, it includes relevant assurance elements and associated support systems, which have been digitised to promote efficiency and flexibility to meet the needs of the contract, relevant stakeholders and environmental requirements.

Table 11: Environmental assurance framework

Assurance Framework	Assurance Element	Proposed System
Strategic assurance	Six-monthly compliance review; contract and TSR compliance; environmental requirements management, including environmental design compliance; and monthly environmental system self-check	This plan, digitised monthly environmental reports, pre-construction compliance matrices, six-monthly compliance reports and INTELEX

Assurance Framework	Assurance Element	Proposed System
Operational assurance	Environmental incident management; environmental inspections, SERs, environmental monitoring and audits by our environmental team; environmental dashboard and KPIs; environmental change management and contractor approvals; and audit program and corrective actions	; INTELEX for data capture and action tracking, action tracking and closeout, and lead and lag indicators for environmental performance; Laserfiche for online forms and workflow system for automating change management and system processes
Compliance assurance	Pre-Construction Environmental Compliance Review	A Pre-Construction Environmental Compliance review for the works shall be completed detailing compliance with all relevant conditions and mitigation measures prior to commencement of construction.
Project contractors	Contractor internal environmental audits, and SMWS and EWMS audits	Digitised contractor inputs for inspection, monitoring and event management, and monthly project reports

17.1.1 Environmental Inspections

An environmental inspection report will be used to monitor environmental issues on site and issued to the Project Manager. The report will generally be completed on a weekly basis across the works and will be captured digitally within the INTELEX system, which will allow our site team to complete inspection activities and raise and assign environmental actions in real time. A copy of the LORAC Environmental Inspection Form from INTELEX System is given in Attachment L of this CEMP. The frequency may change based on site activities being completed and associated level of environmental risk as identified in the 30/60/90 process. Periodic inspections by the Environmental Manager would take place to verify the adequacy of all environmental mitigation measures.

Environmental Representative to undertake fortnightly inspections, dependant on level of risk presented by the activities at the time.

17.1.2 Environmental Monitoring

Table 12 describes Laing O'Rourke's approach to environmental monitoring on the works. Monitoring will be undertaken to demonstrate that environmental performance objectives are being met and to meet the obligations associated with the sustainability rating. Monitoring will be a combination of real-time unattended and attended monitoring regimes.

Table 12: Environmental reporting

Aspect	Approach	Locations
Noise	Attended noise monitoring during high-risk activities, Out of Hours Works and in response to complaints, or as required under the SM OOHV Protocol	All locations as necessary
Vibration	Attended vibration monitoring as required or as required under the SM OOHV Protocol and CSSI for works within heritage curtilage	All locations as necessary

Aspect	Approach	Locations
Water quality	Dewatering	All locations as necessary
Air quality	Visual inspections to make sure that dust impacts are minimised to the greatest extent practicable	All locations as necessary

17.1.3 Collaborative Environmental Inspections with Stakeholders

Collaborative environmental inspections with Laing O'Rourke, TfNSW representatives and Sydney Metro - WSA will be scheduled as required.

17.1.4 Pre-and Post-Rainfall Inspections

Weekly inspections of the erosion and sediment control measures will be carried out in areas considered to have an ERSED risk such as a stockpile areas, areas of excavation or area with insufficient ground cover. Issues identified would be rectified as soon as practicable. Site inspections will be undertaken prior to rainfall events in ERSED risk areas where 20mm or more is predicted for a 24-hour period. All water will be tested (and treated if required) prior to discharge from the site in order to determine compliance with the appropriate approvals and licencing. No water will be discharged from the site without written approval of the Contractor's Environmental Manager (or delegate). This is to form a HOLD POINT. Post-rainfall inspections will be undertaken on all projects or sites in which erosion and sediment control is considered a high risk.

17.1.5 Project Leadership Inspections

Project leadership will undertake regular safety and environmental inspections, which will be captured in Field View which is a cloud-based system.

17.2 Environmental Action Tracking

Environmental issues or Non-compliances to operational control procedures or the CEMP, or other issues identified during environmental inspections that require further action will be captured in INTELEX as defined in our procedures. Action owners will be notified. Actions will be tracked to close out through the INTELEX system with monitoring and oversight provided through the action tracking dashboard.

All environmental incidents, Non-compliances and issues must be reported verbally to TfNSW and the ER. TfNSW will report to Sydney Metro WSA in accordance with the Sydney Metro Environmental Incident and Non-compliance Reporting Procedure.

The following environmental issues or non-compliances are to be included within INTELEX as corrective actions:

- Internal inspection outcomes that cannot be rectified immediately will be assigned actions on the environmental inspection report;
- Incidents and associated corrective actions;
- Internal audit observations/non-compliance;
- Client audits or other notice of non-compliance;
- Notices or action from regulatory authorities.

The following Environmental Issues are to be included within project systems as corrective actions:

- Internal inspection outcomes that cannot be rectified immediately – actions nominated on the Inspection Report and Management H & S and Environmental Checklist (where applicable) – to be recorded in INTELEX;
- Incidents and associated corrective actions – to be recorded in Sydney Metro Incident and Non-Compliance form, project systems folder and INTELEX;
- Internal audit observations/non-compliance – Project Corrective Action Register and INTELEX;
- Client audits - Project Corrective Action Register;
- Notices or action from regulatory authorities – to be recorded in INTELEX;
- Non-compliance under applicable environmental planning approvals – to be recorded in INTELEX.

Where environmental leadership inspections or monitoring activities identify actions that are required to be logged into INTELEX, a workplace visit is to be created and the associated actions generated. LORAC personnel will close out any ER inspection actions. ER inspections will be issued through email/ Teambinder. Inspection close out will be via SAI360 (SM platform).

17.2.1 Environmental Issues

An Environmental Issue is an event, action or activity that has not conformed or fully conformed to the projects stated environmental commitments and obligations. The project's environmental commitments and obligations are outlined generally within this CEMP, the Environmental Impact Statement, associated reports, CEMF and documents listed in the Conditions of Approval. An Environmental Issue can be defined as the rejection of or the failure to conform to system standards, rules, or procedures. It is important to note that the standard or procedure is not related to a CoA.

The environmental issue shall be investigated immediately by the Environmental Manager, if it is confirmed, LOR will verbally notify TfNSW promptly and provide details of the event along with the findings of investigation. Environmental Issues shall be recorded in the internal system-based folder. Environmental Issues are rectified through the regular review of practices and the addition of mitigation measures to prevent reoccurrence through means such as briefing the team via lessons learned and training where required.

17.2.2 Non-Compliances

In accordance with the CoAs, a non-compliance is defined as:

“An occurrence or set of circumstances or development that is a breach of this approval”.

Where a potential non-compliance is identified it shall be investigated and the Environmental Manager will verbally report this immediately to TfNSW representative and the ER. TfNSW shall report the non-compliance to Sydney Metro as required. Non-compliances shall be recorded and addressed by raising a Sydney Metro non-compliance form and logged into INTELEX. Corrective actions will be developed to prevent recurrence.

Where an environmental non-compliance is identified and is substantiated, a Non-compliance and Corrective Action Report/Request (CAR) will be issued in accordance with Sydney Metro WSA Environmental Incident and Non-Compliance reporting procedure (SM-17-00000096). If a non-compliance is identified, TfNSW will be verbally notified of the environmental issue. It will be TfNSW's responsibility to then notify Sydney Metro. The aforementioned form will be issued within 48 hours by the party responsible for the breach.

Non-compliances arising out of monitoring, inspections and audit outcomes will be recorded in the assurance application in INTELEX and tracked to close out. LORAC will document and detail any non-compliances arising out of any monitoring, inspections and audits. TfNSW and Sydney Metro – WSA will be made aware of all non-compliances in a timely manner. LORAC shall provide TfNSW and the SM-WSA with the Incident Report required in a SAI360 compatible format.

In accordance with CoAs A44-A45 the Planning Secretary must be notified via the Major Projects website within 7 days after the Proponent becomes aware of any non-compliance with the terms of the approval. This notification process will be undertaken by SM-WSA.

17.2.3 Corrective and Preventative Actions

Corrective actions will be identified as below:

- Where an issue is identified and raised, the Environmental manager or delegate will liaise with the appropriate project personnel or qualified person(s) or seek advice from TfNSW or the ER to determine the most appropriate corrective action to implement;
- Where assessed by the Environmental Manager to be appropriate, the corrective action will be actioned through the Corrective Action Request (CAR) to prevent a re-occurrence.

Preventative actions will be identified as below:

- Relevant incidents, complaints and non-compliances are discussed at relevant meetings;
- Trends relating to environmental incidents and non-compliance findings are reviewed at these meetings to identify any reoccurring issues that are indicative of the need to take preventative action;
- Any member of the LORAC project team, including subcontractors as well as the ER, TfNSW and SM-WSA can contribute and provide suggestion to any required or appropriate preventative action;
- Where assessed by the Environmental Manager to be appropriate, the corrective action will be actioned through the Corrective Action Request (CAR).

17.2.4 Corrective action Request Management

Where a non-compliance is detected, a Non-Compliance Report (NCR) will be raised using the Environmental Incident and Non-compliance Notification report (SM ET-FT-403). The LORAC, ER, TfNSW and SM-WSA representatives will determine if issues identified during an environmental audit or inspection will be closed out as part of the inspection or audit process or via the issue of an NCR based on the severity of the issue and its potential to impact sensitive receivers or the environment.

Environmental related non-compliances are raised with the Environmental Manager to determine the appropriate actions and close-out dates. On completion of agreed actions, the Environmental Manager shall sign off the NCR to signify close-out and provide a copy to TfNSW and SM-WSA. Any changes to operations or practices resulting from actions are to be communicated to employees and subcontractors as required. A register of all NCRs raised on the Project will be maintained on the INTELEX system(s).

Corrective actions and assurance actions will be managed via the assurance application in INTELEX, which allows corrective actions to be assigned, tracked and managed to closeout. The CAR differentiates issues or items by risk ranking. Table 13 sets out nominated timeframes to resolve items on the CAR.

Table 13: Corrective action request ranking

CAR risk ranking	Timeframe for resolution
1	Action must be commenced immediately to resolve the issue
2	Action must be resolved within one week
3	Action must be resolved within one month

17.2.5 Monthly Environmental Reporting

Laing O'Rourke's approach to environmental reporting is outlined in the Environmental System Requirement Communication and Reporting and this section of the CEMP.

Monthly internal environmental reporting is to be completed through Laing O'Rourke's digital contract review process. The Project Manager for each section is responsible for ensuring environmental performance information, such as the following as necessary, is included in each month's digital contract review:

- Summary discussion on risks and opportunities – to be read in conjunction with the risk register;
- Environmental performance outcomes, improvement initiatives or corrective measures
- Client and stakeholder engagement and interface and, particularly, client feedback on environmental performance;
- Environmental incident and event management, including the outcomes of incident investigations and corrective actions;
- Content for the environmental dashboard.

Subcontracts and supply chain agreements must include supply chain reporting requirements as necessary. This may include:

- Environmental management reporting requirements and key performance indicators;
- Waste management reporting;
- Government Resource Efficiency Policy (GREP);
- Project-specific conditions of approval or environmental compliance reporting requirements.
- Supply chain environmental performance reporting will be used as necessary to inform environmental reporting.

Program-level monthly environmental reporting will include but not be limited to the following:

- Summary of emerging and / or outstanding environmental issues and any proposed or actual mitigation actions;
- Highlight of environmental management initiatives during the reporting period.

17.2.6 Monthly Environmental System Self-Check

On a monthly basis, the performance and implementation of the environmental management system on the Sydney Metro Enabling programme will be reviewed via an environmental system self-check, with outcomes retained as records. Table 14 outlines the requirement and criteria to be revised and the relevant frequency.

Table 14: Environmental Self Check

System Requirement	Criteria	Frequency
Severe Environmental Risk Program	Program implemented and actions complete	Monthly
Site inspection implementation	Site inspections have been completed in accordance with the CEMP requirements	Monthly
Event management	Environmental incidents have been reviewed, investigations completed, and actions closed out	Monthly
Environmental monitoring program	Environmental monitoring has been completed and reviewed for compliance. Non-compliances have been actioned and closed out	Monthly
Waste management	Waste management register is up to date, including spoil management and disposal	Monthly
Conditions of approval tracking	Conditions of approval compliance matrix has been reviewed and updated, demonstrating compliance with conditions	Six monthly
Environmental licences	Environmental licence compliance has been reviewed and reporting completed as nominated	Quarterly

17.2.7 Supply Chain Environmental Compliance Obligations Review

Suppliers and subcontractors operating on the works will be subject to environmental performance requirements. Environmental performance requirements will apply to all suppliers and subcontractors in accordance with the supply or subcontract agreements. To ensure supply chain environmental performance requirements are met, we will implement:

- Supply chain audits of the implementation of supply chain environmental systems, which will verify implementation of the environmental requirements from their respective agreements;
- Environmental inspections reviewing supply chain performance;
- Monthly environmental reports as required to report on environmental performance and as outlined in supply chain agreements;

- Waste disposal reporting for all supply chain partners operating on site with obligations for waste disposal, who will maintain waste disposal records and provide reports on a monthly basis;
- Environmental monitoring to verify environmental performance targets are being met where required by the supply chain agreement.

If work on the site is being performed contrary to this plan or applicable legislative requirements, action will be taken immediately. This may include a direction to stop work and issue of a relevant site instruction to address the non-compliance to works procedures and environmental controls.

17.3 LORAC Incident Management

The management, investigation, reporting and notification process for environmental events, including positive events, is to be undertaken in accordance with the event management and reporting system requirement. All incidents (including potential incidents) must be reported so that they can be investigated and prevented from recurring.

Incident reporting and investigation from the work sites is to be recorded in INTELEX, which can be accessed via Laing O'Rourke intranet or otherwise via the internet. Incidents are to be logged within 48 hours of occurrence. For Class 1 and Class 2 incidents, an investigation must also be logged in INTELEX. Table 15 describes the three classes of environmental incidents for the purposes of reporting.

Table 15: Environmental incident classes

Class 1	Class 2 (including potential)	Class 3
<p>Create permanent or long-term damage to the environment. This damage will result in the environment taking 12 months or more to return to pre-existing conditions. Major environmental investigation and potential for large prosecution. These events must be reported immediately to the General Manager Sustainability and Environment, Head of Legal and Environmental Leader.</p>	<p>Create short-to-medium-term damage to the environment.</p> <p>This damage will result in the environment taking up to 12 months to return to pre-existing conditions.</p> <p>Potential for prosecution or infringement notice.</p>	<p>Typically cause short-term or nuisance damage. The damage is easily rectified, usually within one day.</p> <p>Does not cause medium or long-term damage (e.g. any spill to ground of fuel, chemical or oil).</p> <p>Heritage or artefact desecration.</p>
<p>Serious or material environmental harm or damage. Environmental notices that are not actioned.</p>	<p>Potential or actual material environmental harm or damage reportable as per State regulation.</p>	<p>Minor pollution event.</p> <p>Minor failure of environmental controls which does not result in a risk of regulatory action.</p> <p>Typically cost equal to or less than \$5,000 to make good.</p>

Class 1		Class 2 (including potential)		Class 3	
Cost to make good exceeding \$50,000. Breach of a statutory environmental permit or approval condition that results in serious or material environmental harm or results in the project being shutdown.		Cost to make good from \$5,000 to \$50,000. Potential for prosecution <= \$50,000. Event related to actual or potential Infringement / Improvement Notices by any authority related to environmental legislation or planning approvals conditions Breach of a statutory environmental permit or approval condition			
Corresponding Sydney Metro Incident Classification					
C1	C2	C3	C4	C5	C6
Irreversible large-scale environmental impact with loss of valued ecosystems	Long-term environmental impairment in neighbouring or valued ecosystems Extensive remediation required	Impacts external ecosystem and considerable remediation is required	Short-term and/or well contained environmental effects. Minor remedial actions probably required	Change from normal conditions within environmental regulatory limits and environmental effects are within site boundaries	No appreciable changes to environment and/or highly localised event

The classifications are explained in detail with examples in the Laing O'Rourke Environmental Incident Classification Guidelines, which is available in the event management and reporting system requirement.

17.3.1 Incident Notification

All incidents, including potential incidents, must be reported so that they can be investigated and prevented from recurring. All personnel, including supply chain partners, are required to notify Laing O'Rourke of all environmental incidents, with verbal notification to be provided immediately. Notifications must include as a minimum:

- Time, date, nature, duration and location of the incident;
- Location where incident has occurred;
- Nature, estimated quantity or volume and concentration of any pollutants involved;
- Circumstances in which the incident occurred and cause of the incident, if known;
- Action taken or proposed to be taken to deal with the incident.

Failure to complete the required notifications will be considered a system Non-compliance or non-compliance.

Notification and any environmental incidents, including but not limited to vegetation damage, fauna injuries, contamination discoveries, Indigenous artefact or heritage discoveries, and fuel spills, are to be reported to LORAC's Environmental Manager and site personnel. Verbal or written notification is to be subsequently provided to the client within four hours for Class 1 and 2 incidents and 24 hours for Class 3.

A41 The Planning Secretary must be notified via phone or in writing via the Major Projects website immediately after the Proponent becomes aware of an incident. Any notification via phone must be followed up by a notification in writing via the Major Projects website within 24 hours of the initial phone call.

For any Incident to be reported to the Planning Secretary (as defined by CSSI 10051, an occurrence or set of circumstances that causes or threatens to cause material harm and which may or may not be or cause a non-compliance with the terms of the approval), the Planning Secretary will be notified via phone or in writing via the Major Projects website immediately after the Laing O'Rourke becomes aware of an incident. Laing O'Rourke shall report any incidents to and provide Sydney Metro - WSA with the written notification to allow for Sydney Metro - WSA to report to the Planning Secretary (CoA A41).

For any CSSI non-compliances, the Planning Secretary will be notified in writing via the Major Projects Website within in seven (7) days after the aware of the incident as per the CSSI conditions (CoA A44).

Laing O'Rourke will provide immediate notification in writing of any incident or issue to TfNSW, Sydney Metro WSA and the ER no later than one hour after the incident occurs and following the agreed protocol described in Table 16.

Table16: Reporting protocols

Incident	Reporting Protocol
Class 3 incidents	Where a Class 3 incident has occurred, the Laing O'Rourke Site supervisor or immediate supervisor is to be informed. Class 3 incidents must be logged directly into INTELEX, and TfNSW, Sydney Metro, Environmental Representative and Acoustic Advisor (where necessary) is to be notified.
Actual or potential class 2 incidents	Where an actual or potential Class 2 incident has occurred where there is risk of regulatory action, the Leadership Team (Environmental Leader) is to be informed via the IDE General Manager and relevant Project Manager. Class 2 incidents are to be investigated using a recognised investigation protocol.
Class 1 incidents	Where a Class 1 incident the HSE General Manager, and Leadership Team (Environmental Leader) will be notified by telephone immediately or Class 2 Incidents with the potential to result in regulatory action. The General Manager will notify the NOP legal representatives in accordance with the agreed protocols. The requirements of the flow chart in Attachment A to this plan are to be applied to all actual or potential Class 1 environmental incidents. Class 1 incidents will be subject to an incident cause analysis method (ICAM)

Incident	Reporting Protocol
	Where complaints are received at project sites or workplaces involving the media or where Laing O'Rourke or client image is likely to be affected, they will be documented in accordance with the CLMP.

All Class 1 and 2 incidents will be reported to the relevant state and federal authorities as required under relevant acts and regulations and MCoA. Complaints will be reported to external authorities in accordance with specific licences and permit in accordance with the MCoA requirements.

The applicable legislation is listed in the integrated management system Environmental [External Websites](#) and [Legal Compliance Service](#).

The [HSE Internal Incident Notification](#) will be completed for all actual and potential Class 1 and 2 incidents within 24 hours of the incident occurring and sent via email and/or fax to the distribution list, including the:

- Environmental Manager;
- Health, Safety and Wellbeing Manager;
- General Manager;
- Leadership Team;
- Project Manager;
- Subcontractors' and consultants' project representatives;
- TfNSW;
- Planning Secretary through Sydney Metro – WSA;
- NOP Environmental Leaders (note – corporate representatives).

17.3.1.1 Sydney Metro Environmental Incident and Non-Compliance Procedure:

In the event of an Environmental Incident, the Sydney metro Environmental Incident and Non-compliance Reporting Procedure (SM-17-000000796) will be followed along with the LORAC Environmental Incident Reporting procedure.

The Sydney Metro procedure provides references to:

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

The Sydney Metro environmental incident and non-compliance procedure covers the management of events such as, but not limited to:

- Spill of fuels, oils, chemicals and other hazardous materials;
- Unauthorised discharge 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 breaches of legislation, including a potential breach of a condition of an environment protection licence, MCoAs or any agency permit condition;
- Works undertaken without appropriate approval or assessment under the EPA act;
- Works undertaken that are not in accordance with a project assessment;
- And unauthorised dumping of waste.

Incident Notification and Reporting:

The incident notification and reporting requirements are described in full within the Sydney Metro Environmental Incident and Non-compliance Reporting Procedure and a Flowchart of the Sydney metro incident notification and reporting process is provided in the Attachment A. Sydney Metro Environmental Incident and non-compliance Notification Report template is also given in Attachment A of this plan.

Table 17 sets out how LORAC will notify the client of incidents on the works in accordance with the Sydney Metro Incident Reporting procedure.

Table 17: Environmental incident classes and notification as per Sydney metro procedure

Class & Category	Category Definition	Verbal/ Written Notification to Principal & ER	Written Report to Principal & ER	
			Incident Notification Report	Incident Investigation Report
Class 3				
C6	No appreciable changes to environment and/or highly localised event.	Within 48 hours	Within 48 hours	N/A
C5	Change from normal conditions within environmental regulatory limits and environmental effects are within site boundaries.			
C4	Short-term and/or well contained environmental effect. Minor remedial actions probably required.			
Class 2				
C3	Impacts external ecosystem and considerable remediation is required.	As soon as possible becoming aware	Within 48 hours	Within 7 days

Class & Category	Category Definition	Verbal/ Written Notification to Principal & ER	Written Report to Principal & ER	
			Incident Notification Report	Incident Investigation Report
C2	Long-term environmental impairment in neighbouring or valued ecosystems. Extensive remediation required.			
Class 1				
C1	Irreversible large-scale environmental impact with loss of valued ecosystems.	As soon as possible after becoming aware	Within 48 hours	Within 7 days

a. Sydney Metro and ER

Environmental incidents that would be or have the potential to be classified as Category 1 and Category 2 under the Sydney Metro Environmental incident and Non-compliance Reporting Procedure, will be notified immediately to TfNSW, Sydney Metro Environmental Manager and the ER by LORAC. Class 3 incidents will be reported to the principal and ER within 48 hours. Incident reports will be provided to Sydney Metro and the ER in accordance with the Procedure, including lessons learnt from each environmental incident and proposed measures to prevent the occurrence of a similar incident. All efforts will be undertaken immediately to avoid and reduce impacts of incidents and suitable controls put in place. Incidents will be closed out as quickly as possible, taking all required action to resolve each environmental incident.

b. NSW EPA

The Environmental and Sustainability Manager will be available to be contacted by the NSW EPA on a 24-hour basis and who have authority to take immediate action to shut down any activity, or to affect any pollution control measure, as directed by Sydney Metro or an authorised officer of the NSW EPA. LORAC is required to inform the principal immediately of any incidents that may require notification to the NSW EPA. Section 148 of the Protection of the Environment Operations Act 1997 (PoEO Act) requires notification to the NSW EPA of pollution incidents causing or threatening to cause material harm to the environment. Under Section 147, 'material harm' is defined if:

(a) If the actual or potential harm to the health or safety of human beings or ecosystems is not trivial.

(b) If actual or potential loss or property damage (including clean-up costs) associated with an environmental incident exceeds \$10,000.

Loss includes the reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to avoid, mitigate harm to the environment. For the purposes of this part of the PoEO Act, it does not matter that harm to the environment is caused only in the premises where the pollution incident occurs.

c. DPE

The Department must be notified via phone or in writing via the Major Projects website immediately after the Proponent becomes aware of an incident. Any notification via phone must be followed up by a notification in writing via the Major Projects website within 24 hours of the initial phone call. The notification must identify the CSSI (including the application number and the name of the CSSI if it has one) and set out the location and nature of the incident. Subsequent notification must be given, and reports submitted in accordance with the requirements set out in Appendix A of the SSI Project Approval (MCoA). The Planning Secretary must be notified in writing via the Major Projects website within seven days after the Proponent becomes aware of any non-compliance with the conditions of this approval. A noncompliance notification must identify the CSSI (including the application number for it), set out the condition of approval that the development is non-compliant with, the way in which it does not comply and the reasons for the non-compliance (if known) and what actions have been, or will be undertaken to address the non-compliance.

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

17.3.2 Senior leaders' environmental incident review

Within three days of any Class 1 incident, the Project Manager will convene a briefing with the relevant senior business leader to provide an update on the incident investigation and allow the Leadership Team to be actively involved in the investigation process. The briefing will include discussion on the progress of the investigation and any specific initial findings. A status report on any rectification work or maintenance activities to the relevant environmental controls will also be provided.

Information relating to the incident investigation that will be forwarded to the General Manager and Leadership Team includes:

- The condition of the environment and the status of any rectification or remediation works;
- The completed incident investigation report, including appropriate causal analysis and corrective actions;
- Program for the implementation of the corrective actions and any maintenance activities;
- A completed environmental learning bulletin template to enable knowledge-sharing with relevant parties;
- Any other relevant information.

17.3.3 Notifying potential or actual environmental harm pollution incidents

The NSW EPA, SM WSA and DPE must be notified immediately of all pollution incidents that cause or threaten material harm to the environment. Harm to the environment will be deemed material if the effect (or potential effect) from an incident on the health or safety of humans or ecosystems is not trivial and/or results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding \$10,000.

The Environmental Manager, General Manager, Head of Legal, Environmental Representative must also be notified immediately of any incidents which require EPA notification. In the event of a pollution incident, works would cease in the immediate vicinity and the IDE would immediately

notify the Sydney Metro - WSA Representative and TfNSW Environment and Planning Manager. The EPA would be notified if required, in accordance with Part 5.7 of the POEO Act.

If an incident presents an immediate threat to human health or property, 000 Emergency is to be called in accordance with the procedures outlined in the Work Health and Safety Management Plan (WHSMP).

The notification must include information on:

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

Regardless of the actual or potential impact, these authorities must be notified under legislation for all notifiable pollution incidents. Further information in relation to the incident must be provided immediately if it becomes available after the initial notification. Records of contact with and details of the information provided to external authorities must be maintained.

18.0 Stakeholder and Community Involvement

Mitigation measures will be implemented to minimise community impacts. The stakeholder and community interaction will be in accordance with the Sydney Metro WSA Overarching Community Communications Strategy (OCCS), Section 4 of the CEMF, the DNVIS and the Conditions of Approval.

Stakeholders and the community will be kept up to date with construction update notifications detailing specific milestones, plus specific notifications for highly impactful activities such as night works, or major traffic changes.

18.1 Community Communication Strategy

The LORAC Community Liaison Management Plan (CLMP) will support the OCCS for the Project. This strategy meets the CoAs B1 to B10 of CSSI 10051. Note that the LORAC CLMP will comply with the OCCS, which will be in place for the duration of the works.

Opportunities to provide feedback would be available at different times, places and through different mediums. To ensure the engagement process is convenient and comfortable for a range of different stakeholders, a variety of engagement methods tools will be used to facilitate proactive communication.

The CLMP outlines the engagement tools LORAC is to utilise, summarised below in Table 18:

Tool	Details
Briefings/meetings	Briefings/meetings with key stakeholders including councils, government agencies and station staff. Sydney Metro will lead the Government agency briefings. Meetings held with directly affected businesses and residents as needed.

Tool	Details
Door knock	Doorknocks to advise businesses and residents of any specific impacts. Doorknocks during construction if noise and vibration exceeds the limits identified in the Detailed Noise and Vibration Impact Statement.
Written correspondence	All complaints will be closed out with written correspondence.
Notifications	Notifications will be distributed with a minimum 7 days' notice providing project progress and updates (construction updates each month) and include project name, phone numbers, email and web address to enable feedback to be received.
Website updates	Laing O'Rourke will provide Sydney Metro and/or TfNSW with a list of upcoming construction activities for inclusion on the project webpage. All Sydney Metro communication materials uploaded online will adhere to Web Content Accessibility Guidelines (WCAG 2.0).
Translation services	Notifications will contain the translation service telephone number, providing the community with access for those who do not speak English as a first language.
Signage	Site signage will be installed identifying the project names and contact details. Signage or signage requirements to be provided by Sydney Metro or TfNSW. Project information signage, directional, notification of changes to existing parking or bus location signage will be installed at least seven (7) days prior to any changes occurring.
Business Management Strategy	To be produced where there are identified impacts on local businesses such as temporary fencing in front of business, traffic changes that will impact customer access to businesses, production of directional or information signage for the business.
Email distribution list	Stakeholders registered for project updates will receive monthly email updates, managed by Sydney Metro.
Project Infoline	All enquiries will be directed to the Sydney Metro Project Info lines.
Complaints line	All construction related complaints will be directed to the Sydney Metro 24/7 complaints line, which will be made available on monthly notifications and the project specific webpages.

18.2 Complaints Management

Complaints handling is described below and is undertaken in accordance with Section 4.3 of the CEMF and CoAs B3-B10. The complaints management system (Consultation Manager) is managed by Sydney Metro, in which LORAC will participate in the implementation.

The project complaints handling procedure is outlined below:

Members of the community may raise complaints and enquire over the course of the project. LORAC will assist Sydney Metro in managing these complaints and enquires. Stakeholders such as business owners and elected officials may also request site meetings to discuss issues. Contact may occur via:

- 24 hour telephone number – 1800 684 490;
- Written correspondence including letters, emails and Facebook comments;
- Emails to projects@transport.nsw.gov.au;
- Direct engagement – face-to-face interaction including meetings via site visits;

- A mediation system for complaints unable to be resolved (complaints mediator).

18.2.1 Complaints Reporting

Phone call complaints are to be acknowledged within two (2) hours of receipt. When a complaint or enquiry cannot be resolved immediately, a follow up verbal response on proposed action(s) to within 24 hours of a complaint being received.

Email complaints will be responded to within two (2) hours of receipt. However, if an email complaint is received between 10pm and 5am, it will be acknowledged and/or responded to by 9am of the same date.

The Sydney Metro Consultation Manager will advise LORAC of any complaints received and the actions to be taken to resolve the issue. For complaints that require escalation, the Sydney Metro Communications Manager (and/or Place Manager) will respond accordingly.

The Sydney Metro WSA OCCS details a Complaints Management System (Consultation Manager), which includes a Complaints register as per CoA B4. The complaints register will record:

- Number of complaints received;
- Date and time of complaint;
- Number of people (in the household) affected in relation to a complaint, if relevant;
- Method in which the complaint was made;
- Any personal details of the complainant which were provided or if no such details were provided, a note to that effect;
- Issue of the complaint;
- Means by which the complaint was addressed and whether resolution was reached, with or without mediation;
- If no action was taken, the reason(s) why no action was taken.

In accordance with CoA B5, Complainants must be advised of the following information before or as soon as practicable after, providing personal information:

- The Complaints Register may be forwarded to government agencies, including the Department of Planning and Environment (DPE), to allow them to undertake their regulatory duties;
- By providing personal information, the complainant authorises the proponent to provide information to the government agencies;
- The supply of personal information by the complainant is voluntary;
- The complainant has the right to contact government agencies to access personal information held about them and to correct or amend that information.

In accordance with CoA B7, the Complaints Register must be provided to the Planning Secretary upon request, within the timeframe stated in the request. DPE have requested the Complaints Register be forwarded weekly and monthly for their review. This process is to be managed by the SM-WSA Communications Team.

Complaints are to be investigated, documented, actioned and closed out as per the specifications of this plan. All environmental incidents and complaints are to be recorded within INTELEX within 48 hours of the incident.

18.3 Communication With Internal and External Parties

Laing O'Rourke's employees and other interested parties and stakeholders will be kept informed of the functioning of this plan and EMS as necessary, with specific requirements outlined in this section.

18.3.1 Internal

Internal communication methods will include:

- Digital contract reviews (Laing O'Rourke's internal monthly review forum);
- Program management reports;
- Site inspection reports;
- Audit reports;
- Incident reports;
- Noticeboards;
- Site meetings;
- Employee induction, training and toolbox talks;
- Briefings, notifications and alerts.

18.3.2 External

External communication methods include:

- Collective insight sessions on environmental topics with interested parties, supply chain partners and stakeholders;
- Notification of Sydney Metro - WSA for all significant incidents;
- Project management reports to TfNSW and Sydney Metro - WSA at progress meetings;
- Meetings and correspondence with interested parties (e.g., minister, local council and EPA) as necessary and with TfNSW and/or Sydney Metro - WSA approval, as required;
- Discussions with adjoining land owners or neighbours and the community who may be affected by the works.

Communication with regulatory authorities in relation to the project will be coordinated with Sydney Metro - WSA. This includes contract environmental approvals or compliance matters unless authorised in writing by Sydney Metro - WSA or required by law.

Upon completion of the project, an Environmental Summary Report including Site Inspection Report will be completed to close out construction environmental management issues. Any monitoring data collected during the works will be included in the report.