

INDEPENDENT ENVIRONMENTAL AUDIT REPORT



Proponent:	Sydney Metro
Project:	City & South West, Chatswood to Sydenham
Scope:	Monitoring & Reporting Programs (Water & Noise)
Works / Process:	CSMW (Central Station Main Works)
Auditee:	Laing O'Rourke Australia

Audit Organisation:	QEM Consulting Pty Ltd
Auditor:	Larry Weiss
Registration	Exemplar Global EMS Auditor Accreditation no. 12355
Audit References:	QEM 1803-IEA-021
Audit date:	2 nd & 8 th May 2020
Report date:	11 th June 2020

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1.0 AUDIT DETAILS

1.1 Purpose

The purpose of this Independent Environmental Audit was to assess Principal Contractor Laing O'Rourke Australia's implementation of Construction Monitoring Plan requirements for quantification and assessment of the City & Southwest (C&SW) Infrastructure Project's noise and water discharge impacts on the community and/or the environment, in the context of compliance with relevant Planning & Assessment Approvals.

1.2 Context

Planning Approvals issued by the Department of Planning & Environment require Sydney Metro to develop an Environmental Audit Program for independent annual environmental auditing against the terms the City & Southwest (C&SW) Critical State Significant Infrastructure (CSSI) Project Approvals.

QEM Consulting Pty Ltd have been engaged by Sydney Metro Delivery Office (SMDO) Safety, Sustainability & Environment (SSE) to deliver a program of Independent Environmental Audits. As required by C&SW Planning Approval CSSI 15_7400 (A39) and the associated Environmental Audit Program, an Independent Environmental Audit was undertaken to assess compliance with Planning Approvals requirements relating to noise and water monitoring for the Central Station Main Works contract.

The Central Station Main Works (CSMW) generate noise disturbance impacts given proximity of residents, plus excavation of underground and interconnecting passages require groundwater pump out. As further context and background to this audit:

- A Water Treatment Plant (WTPs) was commissioned late 2019 to remove sediment, oil and grease, plus legacy contaminants prior to discharge to the stormwater system.
- A project-specific Environment Protection Licence held by Laing O'Rourke Australia mandates discharge testing frequencies and limits for pH and suspended solids, and specifies construction hours and noise limits.
- On 25 March 2020, the NSW Government introduced the COVID-19 Legislation Amendment (Emergency Measures) Bill 2020, with subsequent Ministerial Order extending public infrastructure projects' weekend and public holiday construction work-day hours.

1.3 Audit Objectives & Focus

The Audit Objective was to independently assess Planning Approval compliance with Monitoring & Reporting Programs for Water and Noise, including supporting monitoring data & reporting information. In addition to monitoring data and reporting, the audit also focussed on site noise management and mitigation measures, plus corrective action resulting from community complaints and performance not meeting planned arrangements.

1.4 Audit Scope

The Audit Scope included Monitoring Program components of Construction Water, Groundwater and Noise Management Plans, plus related evaluation of mitigation measure effectiveness regarding environment and community impacts. Assessment of the hydraulic impacts of groundwater movement was excluded from the scope, as were details of vibration monitoring.

1.5 Audit Criteria

City & Southwest Project Environmental Planning Approval CSSI 15_7400 included* but was not limited to:

- MCoA C3, C9, C10, C11, C16, E33, E38 & E107

Revised Environmental Mitigation Measures relating to:

- NV1, NV7 & SCW4 regarding Environment Protection Licence (EPL 21154).

Sydney Metro's C&SW Construction Environmental Management Framework and the Sydney Metro C&SW Construction Noise & Vibration Management Strategy.

* (Otherwise, refer to comprehensive list in Section 2.1 overleaf).

1.6 Audit Process and Methodology

The audit comprised an off-site desktop review, preparation of an Audit Checklist, a site inspection on a possession weekend, a subsequent formal audit, and a post audit assessment of documentation and records. The audit process including scoping and planning was undertaken in accordance with the principals of ISO 19011:2018 – Guidelines for Auditing Management Systems. Refer to Appendix 2 of this report for further details on Auditor credentials, independence and audit disclaimer.

1.7 Auditees and Participation

Refer to full Audit Attendance list in Appendix 3.

1.8 Audit Definitions & Abbreviations

The following abbreviations and definitions apply throughout this report:

Item	Explanation
C&SW	<i>City & Southwest</i>
CEMF	<i>Construction Environmental Management Framework</i>
CNVS	<i>Construction Noise & Vibration Management Strategy</i>
CSSI	<i>Critical State Significant Infrastructure</i>
CGMP	<i>Construction Groundwater Management Plan</i>
CNVMS	<i>Construction Noise & Vibration Management Strategy</i>
CNVMP	<i>Construction Noise & Vibration Management Plan</i>
CNVIS	<i>Construction Noise & Vibration Impact Statement</i>
EPA	<i>Environment Protection Authority</i>
EPL	<i>Environmental Protection Licence</i>
IEA	<i>Independent Environmental Audit</i>
MCoA	<i>Minister's Conditions of Approval</i>
POEOA	<i>Protection of the Environment Operations Act</i>
PIRMP	<i>Pollution Incident Response Management Plan</i>
REMM	<i>Revised Environmental Management Measure</i>
WTP	<i>Water Treatment Plant</i>
Non-compliant Observation	<i>Refer Section 2.1 overleaf</i>
Improvement Opportunity	
Compliant	
Notable Practice	

2.0 AUDIT FINDINGS

2.1 Compliance Summary

This table provides a summary of compliance against audit criteria and area of focus, indicating the number of actions required:

Focus Area	Key Criteria	STATUS			
		Compliant			Non-Compliant
		NP	IO	OBS	NC
Management Planning	MCoA C3 a), d) & e); C9 a) c) & d); C10 a) - f); E33, E38 - 40 & E107. CEMF 15.0 & CNVMS				
Regulatory Approvals and Controls	POEO Act s120 EPL 21148 L1-3 and M1, 2 & 5 MCoA C10 i) and CEMF 2.3				
Monitoring, Reporting & Improvement	MCoA C10 g) & h) and C11 EPL 21148: R1 and REMM SCW4 CEMF 3.13b and CNVMS 9.2		2	1	
Complaint, Non-Compliance & Incident Management	CEMF 3.10, 3.14 & 4.3 REMM SCW4, POEO Act s120 EPL 21148: R2, R3 & R4.1				
Mitigation & Control (site & community)	MCoA C4 b) & d) REMM NV1, N4, NV7 & CNVMS CEMF 9.0 & 15.0		1		

* Note: Compliance is limited to demonstrated evidence referenced in Appendix 1 and/or Audit Checklist notations.

Audit Findings are classified as follows:

Status	Explanation
Notable Practice (NP)	Outstanding positive observation about a system, process or practice, for recognition and/or sharing purposes.
Improvement Opportunity (IO)	A suggestion or opportunity to implement a good or better practice to improve efficiency, further reduce exposure to risk or improve information management. When specifically stated as a Recommendation, this requires a formal response as to a considered action, alternative action or management decision in the negative.
Observation (OBS)	Documented requirement and/or implementation issue which may not strictly affect required performance or compliance outcomes. Also termed a non-conformance (as opposed to non-compliance) in the industry, observations could be an early indication of potential non-compliance and/or an adverse performance outcome.
Non-compliant (NC)	The intent of one or more specific requirements of a condition or obligation have not been met, based on insufficient objective evidence to demonstrate required outcomes or deliverables being achieved and/or complied with.

Note: 'Compliant' status is determined where sufficient verifiable evidence demonstrates that intent, specific requirements or elements of a condition / obligation have been met within the scope of the Independent Audit. As a result, no actions may be required, however actions commensurate with a specific finding classified as an Improvement or Observation above will be needed.

2.2 Summary of Environmental performance

The following provides a summary of the CSSI project environmental performance being a MCoA A39 Independent Environmental Audit requirement. It should be noted that commentary below is limited by audit scope, methodology and duration plus the disclaimer noted further in this report.

2.2.1 CSSI performance & effects on surrounding environment (MCoA 39a & d)

In accordance with Project Approvals, noise monitoring was continuously undertaken at representative locations, plus attended monitoring also took place on a case-by-case basis. Outcomes hereof resulted in few non-compliances being reported of predicted noise management goals being exceeded.

As a quantifiable measure of CSSI project effects on surrounding environment, there were relatively few complaints from **noise** receivers/receptors identified as sensitive, including commuters, community, and businesses. Some residents and businesses located near the station precinct (and hence works) continued to be impacted by high impact noise though, especially during frequent out-of-hours works and possession weekends, and typically when periods of unavoidable noise disturbance levels were predicted. As mitigation measure, proactive engagement with affected residents and businesses by Community Liaison staff appeared to be a project strength though, together with the implementation of respite periods of non-work, physical barriers, noise attenuating blankets, permanent real-time sound monitors and provision of customised personal ear plugs.

Regarding off-site **water** discharges and quality monitoring hereof, the CSMW contractor had determined that traditional monitoring of receiving waters did not add any value. This, given the length of stormwater pipes between site and the relatively disturbed environments such as Blackwattle Bay, plus impacts from other upstream and downstream metropolitan discharges including stormwater. Notwithstanding, the contractor had commissioned a Water Treatment Plant (WTP) to treat project surface-water and groundwater associated with excavation and high rainfall events. WTP discharges regulated by an Environment Protection Licence were continuously monitored, with physical parameters such as pH, suspended solids plus and oil & grease mostly within licence limits. Two (2) non-compliant discharge incidents were noted, one resulting from a significant rainfall event, the other resulting from a failure of the WTP during a troubleshooting exercise. The latter was of short duration but low pH, the documented incident report furnished to the EPA indicating no material harm.

From a Planning Approvals perspective, an Audit Finding was raised (classified as an observation) details hereof noted as item#1 in section 2.3 further in this report. This pertained to the need for more regular and formal assessment of noise data against noise management goals and predictions, and timely communication hereof to interested parties.

2.2.2 Project Approvals compliance (MCoA 39b)

Required documentation plus systems of monitoring and reporting were assessed as compliant with Planning Approval criteria cited in the Summary Table of section 2.1 earlier in this report. Objective evidence assessed in making this determination is detailed in Appendix 1 of this report.

2.2.3 Documentation adequacy (MCoA 39c & d)

MCoA C4 defined Management Plans referenced in the Tables of Appendix 1 further in this report had been maintained, these including Monitoring Programs required by MCoA C9 and C10. Whilst these documents generally defined requirements around monitoring parameters, frequency, location and reporting of results, prescription around routine analysis and corrective/preventive actions was not clearly defined, subject to interpretation and resulting in a minimalistic approach.

Noise & Vibration documentation was comprehensive, but practically quite cumbersome and difficult to navigate, with the CNVIS approximating 150 pages and the CNVMP over 170 pages. Whilst this is an industry wide issue, it is recommended that the contractor considers streamlining monitoring program components of said documents on future projects to facilitate practical implementation including interpretation and evaluation of monitoring results and performance outcomes.

2.2.4 Site compliance (inspection)

A site inspection was conducted of weekend possession activities of planned WE 44 works. These included pile breakdown on platforms 18/19, installation of support beams beneath the existing northern concourse slab and services installation. The Acoustic Adviser and Environmental Representative attended as well, with inspection findings captured in the fortnightly ER Inspection Report for routine follow-up purposes.

Relevant controls and mitigation measures such as noise blankets around break-out areas on Platform 18/19 were observed to be implemented as was real-time noise monitoring data-feed as required by the Planning Approval. A Community Place Officer was also in attendance, observed to be interfacing between community and site supervisory personal.

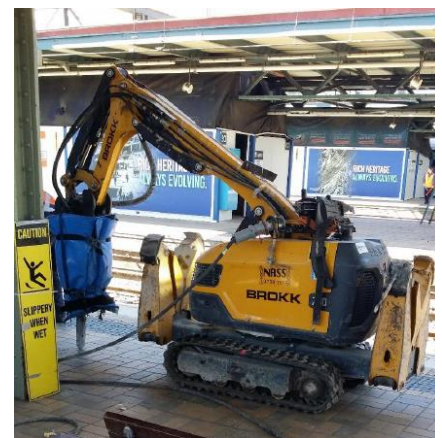
Whilst platform breaking appeared noisy immediately adjacent to the works, this was practically inaudible above Saturday morning background noise when standing near a Chalmers Street sensitive receiver, also the location of a permanent / continuous noise logger.

The following summarises a few pertinent observations, other details to be found in the ER Report referenced in Appendix 1 further.



LHS: Truck - one of two (2) vehicles observed not to be fitted with quackers (high tonal reverse beepers were audible on the day).

RHS: Rock breaking machine used to hammer platform pavers. Noted the (blue) sound dampening sleeve modification on the percussion bit.





Water Treatment Plant, observed to be producing clear discharge of pH and TSS well within limits on the 2nd day of the audit.

The Environment Protection Licence alternative emergency discharge point (to land in the Sydney Station yard), and reportedly seldom used, was also observed.

2.3 Detailed Audit Findings & Action Plan

Ref	Audit Finding	Status	Priority	Agreed Action Plan
1.	<p><u>Interpretation of real-time noise data</u> Formal (recorded) analysis and interpretation of continuous monitoring data was not always undertaken routinely, for example, on the next working day or subsequent week.</p> <p><i>As context, continuous noise monitoring data was provided real-time to nominated stakeholders. Technical and/or compliance interpretation of this information was ad hoc however and not formally undertaken in a timely manner.</i></p> <p><i>The audit observed that a Noise Monitoring Summary (spreadsheet) informing the 6-monthly Construction N&V Monitoring report provided useful interpretation of noise level compliance, trends or spikes, by downloading electronic sound files and/or comparison with nominated noise goals plus site diaries reflecting construction activities undertaken at the time.</i></p> <p><i>Regular updates of this management tool would not only facilitate Acoustic Advisor (AA) reporting, but identify potential issues for preventive action, and facilitate timely completion of the MCoA C16 required Monitoring Program Report (currently averaging submission to DPIE some 4 months beyond the 6-month period end).</i></p> <p>Management Plan obligation: LORA N&V Monitoring Program s10.2.8 of the CNVMP requires:</p> <ol style="list-style-type: none"> That all results be <u>assessed</u> against nominated noise goals Data and other relevant information to be provided to the Acoustic Advisor to assist in producing the Monthly AA N&V Report, noting MCoA A25(b) requirement for the AA to be provided with assessments, monitoring reports, data and analyses undertaken. 	OBS	Medium	<p>LORA reiterated that N&V issues were discussed with the AA (Acoustic Advisor) during inspections and team meetings. Furthermore, any required information was provided as required plus the construction team cooperates with the AA by providing assessments, monitoring reports, data and analyses undertaken as required in accordance with the MCoA A25.</p> <p>Action to be taken by LORA:</p> <ul style="list-style-type: none"> Noise Monitoring Data Monthly summaries (including performance interpretation) will be made available to the Acoustic Advisor for review and subsequent discussion with said AA, this to be evidenced in the minutes of the first Environment Team meeting of the month. <p>Responsible person: Environment Manager</p> <p>Due date: 5 June 2020</p> <p>POST AUDIT UPDATE (prior to report finalisation): LORA provided extract from Noise Monitoring Summary (spreadsheet) supplied to the AA and discussed at the first environmental meeting of June 2020. The AA confirmed this review, with meeting minutes awaited.</p> <p>Action Status = CLOSED, subject to: Ongoing update, availability, and provision by LORA. This to be managed by the AA from hereon in.</p>

Ref	Audit Finding	Status	Priority	Agreed Action Plan
2.	<p><u>Water Quality Report information:</u> The Water Quality Report could be improved to facilitate accuracy, understanding and analysis, for example:</p> <ul style="list-style-type: none"> a) Publicly available EPL Monthly Water Discharge report should indicate TSS (not turbidity) and that daily pH values are an average not a mean result. b) Internally used WTP Discharge Report did not reflect all 3 species protection levels defined in the Management Plans. 	IO	Low	<p>Action(s) undertaken or intended by LORA:</p> <ul style="list-style-type: none"> a) EPL Monthly Water Discharge report errors revised post-audit to indicate TSS (not turbidity) and daily pH values stated as a monthly average. b) LORA WTP Discharge Report (spreadsheet) headings to reflect 3 species protection levels defined in the Management Plans, as required by MCoA E107 regarding the NSW Water Quality Guidelines / ANZECC criteria. <p>Responsible person: Environment Manager</p> <p>Target date: 12 June 2020</p>
3.	<p><u>Noise Mitigation:</u> On the day of the site inspection, a couple of mobile plant were observed not to have quackers fitted to replace tonal reverse alarms.</p> <p>This appeared to be a system breakdown or weakness noting prior similar observations from the fortnightly ER inspections.</p>	IO	Medium	<p>LORA noted and committed to: Update Plant Inspection Checklists such as METRO EC80520a Earthmoving Equipment Pre-Mobilisation to prompt checking of non-tonal / squawkers on all reverse / travel / slewing alarms of plant on site for extended periods. The exception being external rail hire plant used onsite for short periods and where the SWMS requires tonal alarms for safety reasons.</p> <p>Action Status = CLOSED, subject to: Ongoing implementation and effectiveness to be reviewed and reported by the ER during routine site inspections</p>

Ref	Audit Finding	Status	Priority	Agreed Action Plan
4.	<p><u>Noise Monitoring Report information:</u> Noise Monitoring Reports could better explain the basis and meaning of reported data and performance outcomes, for example:</p> <p>a) The meaning of "events" in the publicly available EPL Monthly Noise Data report in the context of continuous monitoring is unclear. Also, data appears to represent exceedance only with omitted information of performance meeting objectives or predictions. Lastly, not all outcomes from real-time/continuous locations were being reported, given "exceptions only" approach above.</p> <p>b) The Noise Monitoring Summary (spreadsheet) informing the 6-monthly Construction N&V Monitoring Report** tables does not indicate that LAeq(15minute) values are indeed <u>measured</u> values. Also, does not clarify the difference between "adjusted calculated" value, "predicted exceedances" and "exceedances of prediction"</p> <p>** <i>Current draft awaiting review and approval prior to furnishing to Department of Planning and publishing on project website.</i></p>	IO	Low	<p>LORA responded that</p> <p>a) "Events" correspond to peak noise events during possessions and other high noise construction activities as defined in the OOHW application.</p> <p>b) Noise Monitoring Summary terms mean the following:</p> <ul style="list-style-type: none"> o Adjusted calculated = the LAeq value after extraneous noise, cumulative impact and duration of activity have been calculated o Predicted exceedances = per the CNVIS and OOHW application o Exceedances of prediction = exceedance of predicted LAeq in the CNVIS / OOHW <p>Action(s) undertaken or intended by LORA:</p> <p>a) The EPL Monthly Noise Data report was updated post-audit to include the meaning of "events" in the context of both attended and continuous performance data. These are by exception only for 15-minute LAeq periods of interest.</p> <p>b) Noise Monitoring Summary (spreadsheet) and draft 6-monthly Construction N&V Monitoring Report when finalised to clarify the meaning of terms used i.e. "adjusted calculated" value, "predicted exceedances" and "exceedances of prediction"</p> <p>Responsible person: Environment Manager</p> <p>Target date: 12 June 2020</p>

Appendix 1: Audit documentation

The following indicates key systems, documents, reports, information and records that were reviewed, accessed or sighted during the audit process:

Documentation	Information / Records
1. MANAGEMENT PLANNING	
Sydney Metro C&SW Construction Environmental Management Framework version 3.0 16 Feb 2016	ERM Construction Noise & Vibration Impact Statement rev.5, November 2018
Sydney Metro's C&SW Construction Noise & Vibration Management Strategy v0.4 dated August 2016	
LORA CSMW Groundwater Management Plan rev8 dated 5 May'20	
LORA CSMW-Soil & Water Management Plan rev 7 dated 23 October 2019	
LORA Construction Noise & Vibration Management Plan LOR-SMC-EMOPLN-000003 revision 10 dated 1 October 2019	
2. REGULATORY APPROVALS & CONTROLS	
LORA Environment Protection Licence, Central Railway Station Main Works, EPL 21148 updated 22 October 2019	Initial stakeholder consultation records are appended to the LORA Management Plans (above)
Project Environmental Planning Approval CSSI 15_7400, Modification 6, determine 21 February 2019	LORA reports and complaint records referenced in section 3 and 4 (below)
3. MONITORING, REPORTING & IMPROVEMENT	
AGJV Central Station Main Works Groundwater Baseline Monitoring Report (September 2018 to February 2019)	
(draft) AGJV 6-monthly Construction Groundwater Monitoring Program Report SMCSWSCM-DJV-EW-00-PLN-GE-000003, period ending September 2019, issued 10/12/19	Email to DPIE cc NRAR dated 21/01/2020 re latest GW Monitoring Report (alongside), evidencing "consultation"
	<i>LORA (Central Station) Project website, EPL reports including:</i>
	GHD Summary of Groundwater Field parameters monthly summaries e.g. March, April 2020
	LORA Water Discharge Register from 16/01/20 to 05/05/2020 (criteria monitoring spreadsheet sighted) supplied as PDF

Documentation	Information / Records
	EnviroPacific WTP Proving/Commissioning ITP and ITR of 16/1/2020 regarding performance approval of WPP, including discharge HOLD Point release by LORA Environment Manager
	EnviroPacific WTP ITR 3.1.2 Routine Maintenance Inspection register (evidencing pH and TSS probe calibration)
	EnviroPacific WTP Daily Check & Calibration spreadsheet
	EnviroPacific Central WTP treated water discharge Out-of-Spec Email Alarm Alert e.g. 14:10 24/04/20
	Eurofins Certificate of Analysis of WTP samples dated 10/03** 25/03** 31/03, 7/03** 05/4, 15/04, 21/04** 28/04** and 05/05/2020, plus related Chain of Custody documentation for the last 2 samples. ** Included influent as well
	<i>LORA (Central Station) Project website, EPL reports including:</i>
	Water Treatment Plant - Water Discharge Monitoring Data Monthly summaries for December 2019 and January - April 2020
LORA 6-monthly Construction Noise & Vibration Monitoring Program Report to 3 August 2019 issued 13/12/2019	EPL 21148 Annual Return 18-19, signed
LORA 6-monthly Construction Noise & Vibration Monitoring Program Report to January 2020 issued 10/04/2020 to SM and ER for review	Emails dated 28/04/2020 re latest N&V Monitoring Report (alongside) to City of Sydney Council the EPA and DPIE (via Sydney Metro), evidencing "consultation"
	Noise Monitoring Summary (performance monitoring tables) as Appendix A to the 6-monthly Construction N&V Monitoring January 2020 report
	Sound Science real-time N&V data / link (noise logger data assessed by IEA during audit) and available 24/7 as required by McoA C11
	Noise Monitoring Summary (performance monitoring spreadsheet sighted) supplied as PDF dated as March 2020
	(draft) Noise Monitoring Summary (performance monitoring spreadsheet sighted) supplied**as imbedded PDF for period February to May 2020, including Chalmers Street, Regent Street and YHA ** Post Audit

Documentation	Information / Records
	LORA Noise Monitoring Record Sheets for March and April 2020 attended monitoring
	LORA NATA and Field Calibration Register
	Texcel EML Calibration Certificates for vibration geophones 7273 (next due in November 2020) and 7516 (next due September 2021)
	ACU-VIB Calibration Certificates for sound and vibration analysers 62879, 75766 and 67637
	Wilkinson Murray letter dated 28/4/20 acceptability of 2 noise monitors found to have expired calibration
	SM ES-FT-419 Sydney Metro Out-of-Hours Work Application Forms for January and March 2020
	LORA Central Station Metro OOHW Tables for May 2020
	<i>LORA (Central Station) Project website, EPL reports including:</i>
	Noise Monitoring Data Monthly summaries for November to December 2019 and January to April 2020
	Noise Monitoring Data Monthly summaries above (updated format**) and May 2020 ** Post Audit
4. COMPLAINT, NON-COMPLIANCE & INCIDENT MANAGEMENT	
LORA CSM Pollution Incident Response Management Plan, EM-PLN-000011 Rev-03 of 15/4/2020	CSMS WTP 19/03/20 Discharge Incident Condition R3 Report (to EPA) dated 09/04/2020 (24-page report includes receiving water analysis and photographs)
	Pollution (sewer overflow example) scenario testing of 30/4/20 included in Test Register, Table 1 of the PIRMP (alongside)
Sydney Metro Complaints Register, derived from LORA Complaints Register	LORA EPA / EPL Complaints Register, with entries from 9/2/2019 to 8/05/2020 - reflected verification of predictions and mitigation measures used (or improvements required).
	Acoustic Adviser complaint investigation of 16/4/20
	Consultation Manager (database) capturing complaint and communication details aligning with Complaints Registers e.g. resident @2:50 AM of 28 March; business of 6 January etc.

Documentation	Information / Records
5. MITIGATION & CONTROL (site & community)	
Environmental Representative May 2020 Inspection Reports HBI-CSM-GEN-000030 (and 30) for ER Inspections 47 and 48	MEP works, 3-Month Lookahead presentation, April 2020
	CSR Station Precinct Operational Impact Assessment Group (SPOIAG) Upcoming Works 15 April 2020 Meeting Agenda and discussion slides
	Northern Concourse SPOIAG Upcoming Works 15 April 2020 (week 43 to 45) Meeting Agenda and discussion slides
	Attendance records and meeting minutes for the above
	WE44 Whiteboard Slides (depicting scope of works)
	Sydney Metro CSM Construction Notifications, February, March & April 2020
	Central Station Quarterly Newsletter, April to June 2020
	Sydney Metro New Chalmers Street entrance construction update of March 2020
	Sydney Trains Work at Central Station notifications for weekend works, April to May 2020
	Sydney Metro CSM Construction Notification-Respite Offer dated 23 October 2019 for customised ear plugs

Appendix 2: Audit Credentials

Audit process

This Independent Environment Audit comprised an off-site desktop review, an onsite and office audit and a post audit assessment of documentation and records. The audit assignment was undertaken by the identified QEM Consulting Pty Ltd Auditor below, with the second Auditor not directly involved in the audit conducting a peer review of the report prior to finalising.

The audit process including scoping and planning was undertaken in accordance with the principals of AS / NZS / ISO 19011:2018 – Guidelines for Auditing Management Systems.

Auditor information

Audit Organisation:	QEM Consulting Pty Ltd
Auditor & Report Author:	Larry Weiss
Auditor Qualification:	Exemplar Global EMS Auditor Accreditation no. 12355
Affiliations:	Member, Engineers Australia 938517
Report Reviewer:	Julie Dickson
Auditor Qualification:	Exemplar Global EMS Auditor Accreditation no. 13573
Affiliations:	EIANZ Certified Environmental Practitioner, no. 221

Audit disclaimer

It should be noted that this report is a snapshot in time, based on supplied records and documentation, as well as observations on the day only, and does not purport to be a definitive confirmation of overall or potential compliance or vice-versa.

Furthermore, the audit was conducted under COVID-19 social distancing arrangements which slightly compromised face-to-face interactions and documentation sharing, especially hard copy.

Auditor certification

The abovementioned Auditor certifies as having personally undertaken this Independent Audit and preparing the contents of this Independent Audit Report; and that the findings of the audit are reported truthfully, accurately and completely; and that he has exercised due diligence and professional judgement in conducting the audit. The signed Statement of Interests and Association in our services agreement with Sydney Metro confirm our Auditor's independence and absence of pecuniary interest in the audited project.

Report Author (& Auditor):

LJ Weiss

Larry Weiss

Appendix 3: Audit Attendance Register

AUDITEE: Laing O'Rourke Australia AUDIT: Independent Environmental Audit, (Monitoring Programs & Controls) REFERENCE: QEM 1803-021-SM-CSW-CSM-IEA		Site inspection 2 nd May 2020 Project audit 8 th May 2020 Closing meeting 13 th May 2020	
SITE(s): Central Station Metro Works, Haymarket		OPENING	EXIT
NAME (print)	POSITION & ORGANIZATION	8 th May	8 th May
Larry Weiss	Independent Environment Auditor QEM	<i>L Weiss</i>	<i>L Weiss</i>
ANDREW HENDY *	Environment Manager SM	<i>A</i>	<i>A</i>
LARRY CLARK *	Alternate Acoustics Advisor ACS	<i>L Clark</i>	<i>L Clark</i>
Chris McCallum *	Env. Manager. LOR	<i>Chris McCallum</i>	<i>Chris McCallum</i>
LUCAS DOBROVOT	SNR ENV ADVISOR LOR	<i>Lucas Dobrovot</i>	<i>Lucas Dobrovot</i>
HUSSAIN NIZAR	Environmental Advisor LOR	<i>Hussain Nizar</i>	
Michael Woolley *	Environment Representative MBI	<i>M Woolley</i>	<i>M Woolley</i>
Mathilde Desprez	Community Relat Mgr LOR	<i>MD</i>	
SITE INSPECTION ATTENDEES / PARTICIPANTS			
From above; indicated as ⊕ plus:			
Hannah Lewis Dalby	Community Place Manager		
Klas Braskog	Senior Project Engineer		
Phil Barkman	Engineer		
WTP guide:			
Justin Scerrà	Senior Project Engineer EnviroPacific 8/5/2020		

----- END REPORT -----