

ACOUSTICS ADVISOR MONTHLY REPORT

SYDNEY METRO WEST (SSI 10038 and SSI 19238057¹)

For period:	March 2024	Authorisation:	Dave Anderson, Acoustics Advisor
Prepared by:	Dave Anderson		
Date of issue:	7 April 2024		

Acoustics Advisor	Alternate Acoustics Advisor(s)
Dave Anderson	Larry Clark, David Hanson and Sav Shimada

Document review		
Document	Reviewed	Endorsed / approved
Central Tunnelling Package (CTP), AFJV		
AFJV approved OOHW Permits	Y	N/A
Bi-Annual Construction Monitoring Report Dec 2022 - June 2023	In progress	
Bi-Annual Construction Monitoring Report June - December 2023	Y	8/3/24
The Bays DNVIS Rev 6 updated endorsement	Y	10/3/24
CNVMP Rev 12	Y	20/3/24
Weekly Noise Report 22/03/24	Y	N/A
Weekly Noise Report 8/03/24	Y	N/A
TBM East St GBNV Monitoring Report	Y	N/A
XP27 GBNV Monitoring Report	Y	N/A
XP29 GBNV Monitoring Report	Y	N/A
Five Dock road restoration noise monitoring	Y	N/A
Western Tunnelling Package (WTP), GLC		
Project-wide – DNVIS Rev K	Y	
Clyde Endeavour Energy works – DNVIS Rev A	Y	6/3/24
Noise and Vibration Monitoring Program Rev G	Y	
ATC Stables Hydroblasting noise monitoring report	Y	N/A
SOP OOH Nozzle Concrete Pour noise monitoring results	Y	N/A
Westmead Utilities Relocation (WUR), Quickway		
OOH permit 002, rev 6	Y	21/3/24
OOH permit 003, rev 5	Y	19/3/24
OOH permit 004, rev 1	In progress	
Eastern Tunnelling Package (ETP), JCG¹		
CNVMP and Monitoring Program Rev 2	Y	25/3/24
Hunter Street DNVIS addendum – OOH load-out	Y	14/3/24
Pymont DNVIS Rev 4	Y	14/3/24
Pymont DNVIS addendum – OOH deliveries with tower crane	Y	20/3/24
Monitoring reports and data	Y	N/A

Inspections / site visits		
Date	Location(s)	Details
7 March	Clyde Dive and Rosehill Gardens	Dave Anderson attended to witness GLC monitoring
		Hydroblasting in progress at dive site. Noise clearly audible at stables, levels between 65 and 75dBA. Noise mitigation and management discussed with GLC.
12 March	Hunter Street and Pymont (ETP)	Dave Anderson joined ER inspection
		Hunter Street: high rise demolition and noise mitigation methodology discussed, noting challenges with encapsulating work area with noise blankets. JCG agreed to provide report following monitoring at affected receivers. Pymont: rock anchor drilling underway; JCG provided data from real time vibration monitors.

¹ Sydney Metro West Concept and Stage 1 (SSI 10038), Sydney Metro West Stage 2: Bays to Sydney CBD (SSI 19238057) shown in italics

14 March	Hunter Street west	Larry Clark witnessed demolition noise monitoring in 20 Hunter Street following install of noise mats on external scaffolding.
	Results compared with noise levels measured prior to installation of noise mats.	
21 March	North Strathfield and Five Dock (CTP), Westmead (WMD)	Larry Clark OOH inspection and observations, with DPHI
	OOH CCTV inspection of stormwater drain on Queen Street, North Strathfield: no actions arising. Listen to, and observe levels, of tunnelling support noise at Five Dock west. Listen to levels of compressor and other noise at Westmead, during WUR OOH works at the intersection of Hassell and Bailey Streets.	
21 March	Westmead Utility Relocation (WUR)	David Hanson OOHW Inspection
	Pit Excavation cnr Alexandra & Hassall / trenching cnr Hassall and Bailey. Noise blankets not installed on Bailey for trenching.	
25 March	Pymont East (ETP)	David Hanson witnessed JCG monitoring
	First OSOM delivery for acoustic shed construction. Inspection from roof of 1-5 Harwood St (opposite OSOM delivery and crane). Tower crane noise dominated. JCG to investigate replacing chains with slings, slowing crane lift movements, F&R at-source mitigation.	
26 March	Rosehill Services Facility	Larry Clark witnessed installation of noise and vibration monitors at Newington Public School
	No actions arising	
27 March	Westmead (WTP)	David Hanson Joint AA/DPHI OOH inspection
	Compressor noise mitigated by silencer – no air release bursts audible throughout inspection.	

Meeting

Date	With	Purpose
5, 12, 19, 26 March	Sydney Metro, JCGJV, ER	Weekly environment meeting, ETP
4, 11, 13, 14 March	Sydney Metro, JCGJV, ER	Discussion of AA and ER comments on noise and vibration documents, ETP
4, 11, 18, 25 March	AFJV, Sydney Metro, ER	Environment meeting, CTP
6, 20 March	Sydney Metro, GLC, ER	Environment meeting, WTP
11 March	DPHI, ER	Monthly meeting with DPHI compliance
11 March	Sydney Metro, GLC, ATC	Fortnightly works status
28 March	DPHI, Sydney Metro, ER, AA	Monthly meeting with DPHI Post Approvals
7, 21 March	Sydney Metro, Quickway, ER	Westmead Utilities Scope – Environment meeting
20 March	AFJV, ER	XP noise management discussion

Noise and vibration issues, incidents, recommendations

Date	Contract / Location and details
Ongoing	OOH compressor noise at Westmead exceeding NML. GLC report with DPHI. GLC advise that a silencer will be fitted to the second compressor soon.
Trial underway	Conditional AA endorsement for OSOM deliveries at Pymont East – six week trial underway. JHG investigating F&R mitigation.
Ongoing	Hammering at Hunter St – structural members require hammering to remove a structure that cannot support pulverisers.
Ongoing	Ground-borne noise and vibration from tunnelling on CTP (both TBMs and cross passage excavation): monitoring reports updated in response to comments by the AA, which indicated that levels are consistent with predictions. AFJV advises that AMMs are implemented in accordance with DNVIS.
Ongoing	Tunnelling support noise levels at Five Dock West are above predictions. AFJV are assessing feasible and reasonable mitigation measures.
March	NCR: WTP – late submission to DPHI of Noise and Vibration Monitoring Report.

Examples of good practice in noise and vibration management

Date	Contract / Location and details
March	<i>JCG consulted with and maintained close contact with affected receivers, including the Radisson Hotel and Merivale, throughout extended hammering required during recent demolition works at Hunter Street.</i>

Ongoing and upcoming noise and vibration risks

ETP:

- Initial excavation (without acoustic sheds) starting at Pymont sites, plus OOH deliveries with tower crane at Pymont East
- Ongoing structural demolition at Hunter Street sites

CTP:

- Tunnelling ground borne noise and vibration
- Commencement of tunnelling support at Burwood North, including operation of Water Treatment Plant (outside acoustic shed) and Grout plant (inside acoustic shed). DNVIS update in preparation.

WTP:

- Tunnelling ground borne noise and vibration

WUR:

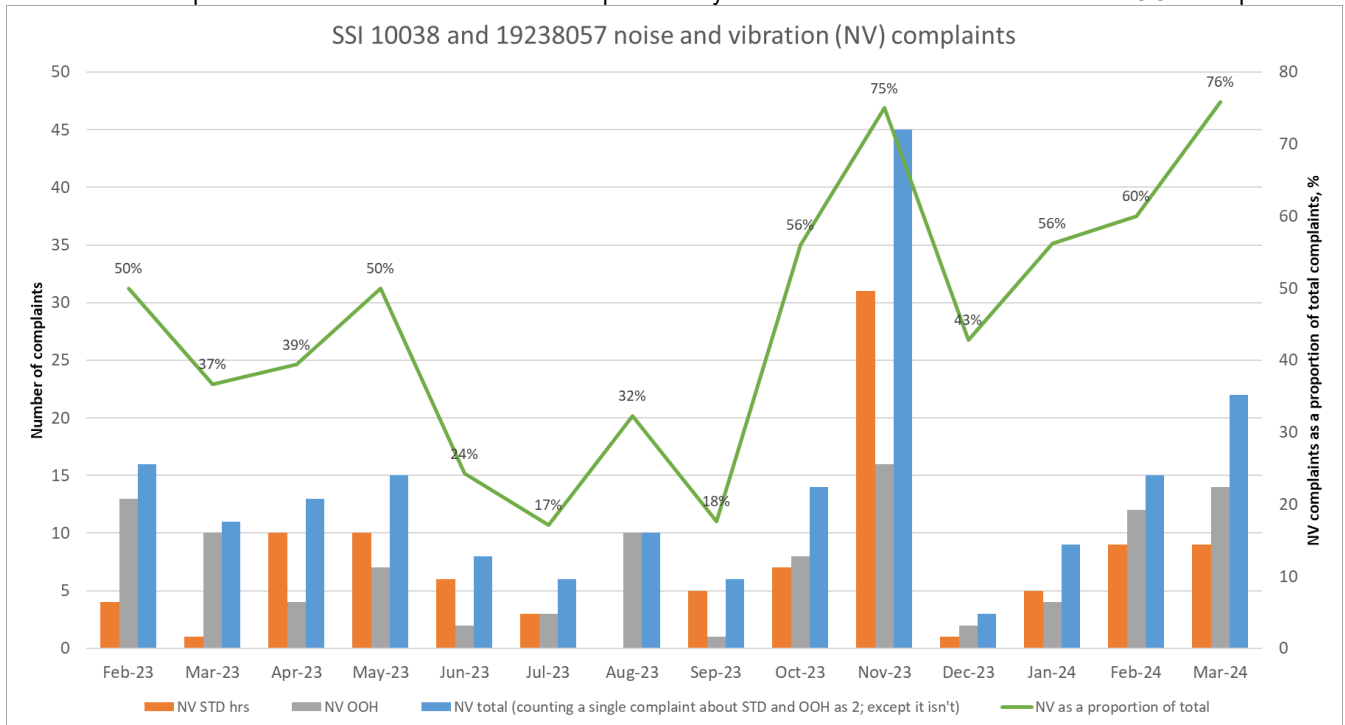
- Night works underway under OOHW Permits 002 (Bailey St) and 003 (Hawkesbury Rd).
- Cable pulling works currently being planned – OOHW Permit 004 – cumulative impacts to be managed noting utilities (e.g. Telstra) do not work to Sydney Metro schedules. Also, some work sites are outside WUR premise.

Noise and vibration complaints

21 noise and vibration complaints attributed to Sydney Metro during February:

- 3 from Westmead which appear to be related to Council road works²
- 1 relating to the Westmead Utility Relocation about notification of OOH works
- 2 from Five Dock relating to OOHW
- 9 from Pyrmont relating to hammering, the tower crane and OOH deliveries / works at the East site
- 2 from Hunter St from businesses concerned about demolition at the East site
- 4 relating to CTP tunnelling activities as TBMs pass through Five Dock West and cross passages are excavated beneath homes.

Note: The chart shows noise and vibration (NV) complaints in standard hours and out of hours (OOH) periods. Some complaints relate to both time periods so the total number of NV complaints may be less than the sum of standard and OOH complaints.



² These would normally be classified as “not related to Sydney Metro” and would therefore be excluded from our analysis. In this case, we are satisfied that these 3 complaints are likely unrelated to Sydney Metro but we understand this could not be conclusively determined at the time of this report.