MONTHLY REPORT PARAMMATTA LIGHT RAIL (PLR): ACOUSTIC ADVISOR

For Period:	01 - 31 December 2023
Prepared By:	
Date of Issue:	12 January 2024
Reference:	5518_PLR-Monthly_AA_Report_December01to31_2023
Authorisation:	Buff

PJT - Project Wide, P1 NP - Enabling Works, P2 HRW - Hawkesbury Road Widening, P3 SAM - Camellia, P4 INF - Infrastructure, P5 SOM - Supply Maintain Operate. RT - Alternate AA inspections

Note: An extension until the 15 January to submit the December Noise and Vibration Report under condition A9 of SSI-8285 has been provided, by a nominee of the Planning Secretary (letter dated: 19/12/2023).

Acoustic Advisor Activity

- Review and Endorsement provided for:
 - Nil for December 2024
- Review and comments provided for:
 - DPE Response to Independent Environmental Audit No. 4
 - SOM GRCLR Communication and Engagement Plan for Testing and Commissioning (Rev A)
 - SOM Staging Report
- Monthly Reporting for December 2023
 - SOM Noise and Vibration Monitoring report for November/December not prepared, as no monitoring activities occurred (AA endorsed the premise).
- Attendance at, or review of meeting minutes, from TfNSW (General Meeting, Executive, Environmental Planning and Sustainability).
 - Attendance at Monthly Progress meeting (TfNSW, DPIE)
 - EPS Meetings (SOM)
- Review of Environmental Representative inspection notes and actions.
- Review of noise and vibration monitoring records and alerts and daily complaints register.
 - Noise and Vibration monitoring did not occur in November (CoA C11 and C9).

Detail / Actions Site Inspections in December 2023:

- AA site insepction completed on evening/night of Monday 18th December 2023.
 - Review of complaints reguarding noise from overhead cables, primarily as to the success of tensioning the cables to reduce 'clinking'. Measures completed at Adderton Road where wires were observed to be oscillating:

- Complaint (No: 4021) 12 December 2023,

 Adderton Road
- Complaint (No: 4011) 20 October 2023,

 Adderton Road
- The cables were observed to be visually oscillating, however no specific noise was identified taken to confirming that tensioning of the cables was successful in mitigating the issue of complaint on 20 October 2023, and likely the same for complaint received on 12 December 2023 (futher along the line, where no noise was observed).
- LRV pass-by testing along Camellia to Carlingford line. The AA liaised with the SOM EPS Manager
 and established propsal to run the LRV between Dundas and Carlingford between 10pm and 2am a minimum of 3 times.
 - The AA attended a close boundary location along the LRV alignment (approximately 200m north of Teopia at a setback of approximately 12m from the line), and observed the LRV being towed from the SAMF to Camellia to connect with the power. Then the LRV was moved very slowly up the line on power setting 1 (it did not move to a higher setting through the testing). The vehicle was continuously tested in a variety of manners, involving frequent and prolonged stops.
 - The first successful noise monitoring of a passby occurred at 12:49 am, with a maximum speed of approximately 8 km/hr. The audibility of the passby took approximately 90 seconds.
 - Observations and analysis noted that the passby included what appeared to be "pulsing" of the power setting, resulting in a sweeping whines/tones. The tones/whines were only audible from the LRV and not evident in the previous (ambient) 3-minute period. Identification of the tones/whine were only 'visible' in review of a spectrogram, due to the sweeping nature, were not present in the statistical octave frequency data.
 - During typical constant power and notch settings the more consistent and less 'obvious' tones will likely be the defining ones (without the wavering the tones are less attention grabbing), and the middle and lower frequency band noise (wheel/rail interface) will likely define the overarching broadband noise measured.
 - The summary of the collected data is that the tones of the pass-by were audible, however at a low volume (maximums <65 dBA) at a location approximately 12m from the LRV pass-by.
- Anticipated scheduled in January, for AA observation/inspection:
 - Additional OOHW overhead cable review, care of a complaint received on 8th January 204
 - Review of more typical daytime LRV movements. Ideally monitor for longer term data-sets and more detailed account of LRV pass-by events (in more typical operating scenarios, not the slow moving pass-by of testing) is required to review against Operational Noise goals.

Monitoring and Alerts

• No significant observations from monitoring or complaints register in December.

Non-compliance and incident details

Nil for this period.

Ongoing and upcoming environmental risks (noise and vibration)

- Routinely receiving complaints along line regarding noise from overhead cables creating noise (clinking).
 - Following up as to tensioning and whether additional complaints occur in these locations.
 - As at 8 January 2024, a new complaint occurred at Denham Place, Dundas, following a gusty wind night. Therefore, tensioning may have not solved the issue completely. Investigation underway.
- Delivery and assembly of LRVs.
- Overhead Wiring works in North Parramatta.

- Tree lopping along Carlingford Line for overhead wiring works (if continuing in January 2024).
- LRV operational testing to commence.
- Review of alarms in accordance with CoA E57.
- Returning to activity after the holiday period may result in receptor sensitivity.

Recommendations / Advice (incl auditing)

Nil for this period.

Outstanding Queries / Other Items

- Documents expected in November but not yet provided:
 - GRCLR CNVIS updates 2023
 - acknowledged that team are internally discussing relevance, and utilising historic calcualtions of LRV movements and Overhead Wiring installation to update documentation.
- ONVR Property Treatments progress:
 - Acknowledgement of 94 Adderton Rd added as a reciever (18/7/2023), and that review identifies no treatment required. Documentation pending.
 - School awaiting T&C to undertake noise monitoring for compliance.
 - 98A and 100 Adderton Rd TfNSW tried to contact, but no success,
 - now progressing to commencement of 'summary of consultation report' covering properties identified in App E of the ONVR.
 - Commercial properties window treatments being measured and confirmed.