


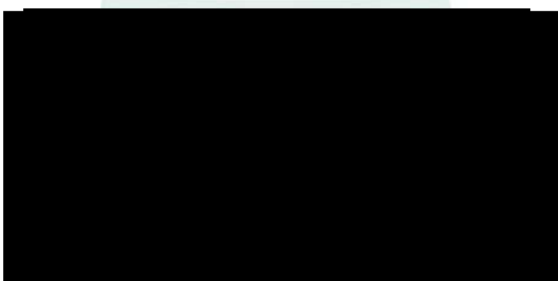
**MONTHLY REPORT
PARAMMATA LIGHT RAIL (PLR): ACOUSTIC ADVISOR**

For Period:	01 - 31 December 2024
Prepared By:	[REDACTED]
Date of Issue:	14 January 2025
Reference:	5518_PLR-Monthly_AA_Report_December01to31_2024
Authorisation:	

PJT - Project Wide, P5 SOM - Supply Maintain Operate. RT - Alternate AA inspections

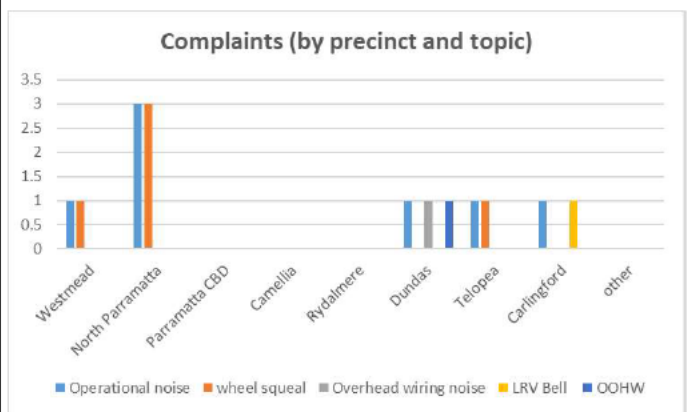
Acoustic Advisor Activity

- Review and Endorsement provided for:
 - *LRV Warning Bell and Horn Noise Test (Rev 4) - AA endorsed on 12-12-2024*
 - *Note the report was investigated in review of CoA E57*
 - *Contractor October Monitoring report AA endorsed on 27-11-2024.*
- Review with comment:
 - *Contractor November Monitoring report AA comments provided 18-12-2024.*
- Review without comment:
 - *Nil*
- Discussions between GRCLR / TfNSW / AA regarding:
 - *Transition to Operational Conditions (First Passenger Service on 20-12-2024)*
 - *AA requested that complaints received would continue to be provided routinely.*
 - *Discussed the change in applicable noise limits for operational testing vs construction.*
 - *Potential need to update the ONVR pending the outcome of lubrication systems testing.*
 - *Complaints*
 - *Feedback in November was that responses logged from community staff appears generic. Responses during December appear to have improved.*
 - *Continued increase of complaints relating to wheel squeal, specifically of concern when occurring after midnight, and before 6am.*
 - *Occasional complaint of overhead wiring noise (during wind), investigations by Renzo Tonin (acoustic consultant) have identified it can occur, however the solution still outstanding.*
 - *T&C Testing*
 - *Minimal occurring during December 2024. AA focussed on wheel squeal testing issues.*
 - *Contractor informed of desire for correlation of lubrication system (pispaspar), speed, direction, and LRV number to be logged in testing results.*
 - *Results of rail wheel squeal investigations and rectification*



- EPA direction to apply manual lubrication unless specifically testing a section of track, with relevant notification ahead of any testing period. In line with AA advice.
- No testing periods proposed during the Christmas break.
- Investigation of wheel guage tolerances identified within tolerance (as at 10-12-2024).
- Monthly Monitoring Reporting
 - Monitoring reports for Nov reviewed by AA.
 - Discovered that documents being 'formally' transmitted to AA, not Secretary.
 - TfNSW Environment Manager formally transmitted June-Oct monitoring reports from Contractor 4-Pillars to Secretary on 3/12/2024 (via TeamBinder).
- Attendance at, or review of meeting minutes, from TfNSW (General Meeting, Executive, Environmental Planning and Sustainability).
 - EPS Meetings (SOM)
 - Communication and Community Engagement (TfNSW team)
 - requesting AA guidance on describing the overall process for community relevant to operational noise and vibration concerns.
 - Transition Planning for Environment & Sustainability (TfNSW team meeting)
- Review of Environmental Representative inspection notes and actions where applicable.
- Review of noise and vibration monitoring records and alerts and daily complaints register.
 - Daily complaints register comprehensive and actions are clearly identified until FPS.
 - Number of complaints decreased since November predominately relating to wheel squeal and occurrences between 1am and 6am.
 - Exerpt: Communications and Engagement summary December 2024

7 complaints received between 1-19 December* (testing & commissioning period) compared to 17 received in November. Complaints related to testing and commissioning - operational noise, wheel squeal, light rail vehicle bell, OOHV (late night tram movements) and overhead wiring noise.



*From Feb 2021, the total number of complaints will include complaints made but investigated and found to be unrelated to PLR works. In December there were nil unrelated complaints.

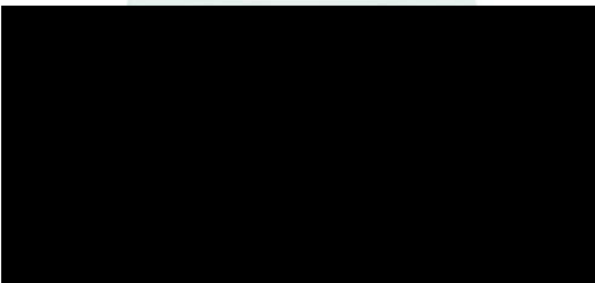


AA Actions / Site Inspections in December 2024

- The AA raised critical items for action with the CAF team during EPS Meetings in November:
 - *AA raised a desire to suggest a STOP WORKS if the ongoing system proves to be ineffective and CNVIS and appropriate Respite and Mitigation controls are not in place. However, LRV testing activity ceased immediately following this discussion.*
 - *As a result of this item being raised, in December, the project collectively have become more aware of the issue regarding rail wheel squeal noise, and are working together to solve the issue.*
- AA monitoring of activities occurring in December included:
 - **Tuesday 17 December** (AA) – Complaint LRV Passby Monitoring – AA independent review
 - *LRV pass-by monitoring at Factory/Church Street turn North Parramatta (wheel squeal)*
 - *2 passbys monitored.*
 - *LRV pass-by observations between Ngara and Benaud Oval LRV stations.*
 - *Including review of wheel squeal, warning bells, door-alarms, general noise.*
 - *6 passby events observed*
 - **Wednesday 18 December** (Alt AA Roger Treagus) – Complaint LRV Passby Monitoring:
 - *LRV pass-by monitoring at Factory/Church Street turn North Parramatta (wheel squeal)*
 - *12 passbys monitored*
 - *LRV pass-by monitoring at Alfred/George Street turn Parramatta (wheel squeal)*
 - *13 passbys monitored*
 - **AA Findings and Recommendations:**
 - *Wheel Squeal – Based on measured results and in cross reference to monitoring completed at Factory/Church Street and Alfred/George Street intersections, it is identified that the manual lubrication is generally effective in reducing the frequency of occurrence of wheel squeal, and the level of noise generated when wheel squeal does occur, with the exception of LRV8, which may need to be reviewed.*
 - *Items for consideration of LRV8 higher levels of wheel squeal include, but are not limited to:*
 - *Wheel/flange tolerances*
 - *Driver behaviour (such as: too fast into turns, not utilising manual lubrication practices).*
 - *Overarchingly, noise levels were far quieter than those measured historically without manual lubrication, and prior to significant driver training.*
 - *It is noted that future testing of GPS automated lubrication may generate new concerns.*
 - *Compliance monitoring is recommended to focus on quieter periods when ambient noise does not contaminate the results.*
- Next anticipated site audit/inspections proposed are:
 - *Further testing proposed against CoA E58 Operational compliance monitoring (T&C).*
 - *Review of efficacy of GPS wheel lubrication (wheel squeal) to confirm it's effectiveness, once system use commencement.*
 - *AA review of proposed long term monitoring installation by consultant at Factory Street complainant location, anticipated for January/February, pending resident agreement and access.*

Community Complaints

- A reduction in complaints occurred, as frequency of manual lubrication was increased.



Monitoring and Alerts

- No significant observations beyond those already discussed.
- Significant monitoring proposed once GPS lubrication systems are confirmed effective.
 - *In the interim it has been requested that CAF engage their acoustic consultant to undertake a more rigorous monitoring campaign at a known curve (wheel squeal noise generating), and gain a better understanding on the level of noise, frequency of occurrence, and if specific LRVs require targeting for rectification (e.g. wheel lathing).*
 - *A residential location at a known problem curve is lined up for 48hrs consistent testing, once LRV testing recommences.*

Non-compliance and incident details

- No new noise and vibration items for December 2024.
- Existing item update:
 - *Clear direction on provision of contractors monthly monitoring report timeframe requirements provided by DPHI.*

Ongoing and upcoming environmental risks (noise and vibration)

- Ongoing full speed LRV operational testing
 - *variously including manual lubrication of track or testing of automated GPS lubricating.*
- Commencement of operational timetable occurred 20-12-2024.

Recommendations / Advice (incl auditing)

- Greater monitoring campaign to confirm quality of automated wheel lubrication (or identification of other issues contributing to wheel squeal).
- Raised October, still relevant:
 - *Complaints arising in relatively straight sections or rail indicate monitoring may be required to confirm operating levels are within CoA E50 requirements, identify any LRVs outside the requirements.*
 - *Investigation in this regard would help the complaints response team to provide accurate feedback on whether testing is being undertaken, and if residents can expect levels to reduce with the implementation of lubrication.*

Outstanding Queries / Other Items

- Documents expected in November but not yet provided:
 - *CNVIS for T&C activities, expected to be updated based on AA comments – No longer relevant.*
 - *ONVR Receiver Noise Test Plan (at property treatment testing) expected to be further updated based on AA comments.*
 - *Monitoring report update to November 2024 with AA comments, and draft for December 2024.*

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