

CABRAMATTA LOOP PROJECT



AUSTRALIAN RAIL TRACK CORPORATION

CONSTRUCTION MONITORING REPORT

November 2021

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1. Introduction

Australian Rail Track Corporation (ARTC) is constructing a passing loop for up to 1,300m length trains on the Southern Sydney Freight Line (SSFL), which will allow freight trains travelling in opposite directions to pass and provide additional rail freight capacity along the SSFL. The project is referred to as the Cabramatta Loop Project. The project has been assessed under Division 5.2 (State significant infrastructure) of the NSW *Environmental Planning and Assessment Act 1979* (EP&A Act). The project is State Significant Infrastructure (SSI #9186) and was declared Critical State Significant Infrastructure (CSSI) on 15 May 2020. The Minister for Planning and Public Spaces granted approval of the CSSI on 28 July 2020.

ARTC has contracted Fulton Hogan to construct the Cabramatta Loop Project. The construction works commenced in November 2021 and are being performed under the provisions of the Ministers Conditions of Approval and Environment Protection Licence 3142. In accordance with Condition of Approval C13, the following report details all required monitoring to be undertaken during the reporting period.

C13 The results of the Construction Monitoring Programs must be made publicly available 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.

2. Cabramatta Creek Water Quality Monitoring

During November the project area received regular rainfall consistent with the Sydney basin. The closest Bureau of Meteorology (BoM) weather station at Bankstown Airport is approximately 4.5km south-east of the site. The BoM recorded 15 days of rainfall with a cumulative total of 151.2mm of rainfall for the month, which has a historic mean of 76.3mm.

Environmental inspections were performed during the month on five occasions during the month. All construction work has been confined to the establishment of the main compound in Jacque Osmond Reserve and environmental controls appear effective with no construction related impacts to water quality observed. It is noted that both upstream and downstream pH values were lower than baseline data and the NSW Water Quality Objective criteria for lowland rivers.

Table 1. Water quality monitoring results – November 2021

Date	Location	Co-ordinates	pH	NTU (Field)	Oil & Grease
27/11/2021	CLP U/S	-33.90260° 150.93804°	6	19.7	Not visible
27/11/2021	CLP D/S	-33.90403° 150.93851°	6	19.6	Not visible

Figure 1 – Indicative water quality monitoring locations



Figure 1: Construction Water Quality Monitoring Locations

3. Noise Monitoring Results

Table 2. Summary of Baseline Noise Monitoring

NCA	Address	Free-field or façade	Rating background level (RBL)			Ambient noise levels, $L_{Aeq(periode)}$					Ambient noise observations
			Day	Evening	Night	Day	Evening	Night	Day (15 hour)	Night (9 hour)	
-	In rail corridor (North of Warwick Farm Station)	Free field	-	-	-	65	64	63	65	63	Rail noise dominant
-	In rail corridor (South of Cabramatta Station)	Free field	43	41	33	68	68	66	68	66	Rail noise dominant
01	225 Railway Parade, Cabramatta	Free field	45	44	33	61	61	59	61	59	Rail noise dominant, road traffic noise along Railway Parade
02	150 Broomfield Street, Cabramatta	Façade	39	38	31	56	56	52	56	52	Rail noise dominant, road traffic noise along Broomfield Street, construction works at residence along Broomfield Street
02	46a National Street, Cabramatta	Free field	38	37	31	53	48	46	51	46	Rail noise faintly audible, road traffic noise along National Street
01	41 Church Street, Cabramatta	Free field	38	39	30	55	53	50	54	50	Road traffic noise along Church Street, rail passbys in background
03	25 Lawrence Hargrave Road, Warwick Farm	Free field	37	38	32	52	50	47	50	47	Rail noise dominant, car passbys and bird noise

Table 3. Summary of residential noise management levels

NCA	Standard hours, $L_{Aeq,15min}$	OOHW Period 1, $L_{Aeq,15min}$		OOHW Period 2, $L_{Aeq,15min}$	Sleep disturbance, L_{AFmax}
		Day	Evening	Night	Night
NCA01	48	43	42	36	52
NCA02	48	43	43	35	52
NCA03	47	42	42	37	52
NCA04	47	42	42	37	52

Figure 2 – Indicative noise monitoring locations



Table 4. Attended noise monitoring results – November 2021

ID# / NCA	Location	Reason for monitoring	Date/Time	NML dB(A)	L(A) _{eq(15min)} dB(A)	Comments
NML1 NCA1	Location 1 – 225 Railway Parade, Cabramatta	Monthly Monitoring - check of background noise levels	5/11/2021 13:42	48	67	L _{max} – 86 L _{min} – 46 L ₁₀ – 71 L ₉₀ - 51 Passing Heavy vehicles audible from 68-85 including Sydney buses 60 – 81, typical: 68-76. Passing Light vehicles audible from 68-78, typical: 65-73. B/G estimate – 47 Mynah birds 49-53 No construction occurring at time of monitoring in the vicinity. No construction noise was audible at the time of monitoring. All noise is attributable to background noise sources
NML2 NCA2	Location 2 – 150 Broomfield Street, Cabramatta	Monthly Monitoring - check of background noise levels	5/11/2021 13:15	48	60	L _{max} – 82dB L _{min} – 42dB L ₁₀ – 62dB L ₉₀ - 45dB Passing Heavy vehicles –N/A. Passing Light vehicles audible from 66-75dB, typical: 68-72dB Passing Freight train on SSFL: 65-76dB tailing off over 30secs Passing Sydney Trains audible between 55-63dB B/G estimate – 42-44dB Birds audible between 46-60dB No construction occurring at time of monitoring in the vicinity. No construction noise was audible at the time of monitoring. All noise is attributable to background noise sources

ID# / NCA	Location	Reason for monitoring	Date/Time	NML dB(A)	L(A) _{eq(15min)} dB(A)	Comments
NML3 NCA3	Location 3 - Corner of Station Street and Lawrence Hargrave Road, Warwick Farm	Monthly Monitoring - check of background noise levels	5/11/2021 14:58	47	59	L _{max} – 79dB L _{min} – 46dB L ₁₀ – 60dB L ₉₀ – 49dB Passing Light vehicles audible from 66-75, typical: 68-72dB Public traffic on Hume Hwy dominates the background acoustic environment between environment between 47-63dB, typical 55-60dB Passing Sydney Trains audible between 60-79 dB (x3) B/G estimate – 47-50dB Birds audible between 48-50dB No construction occurring at time of monitoring in the vicinity. No construction noise was audible at the time of monitoring. All noise is attributable to background noise sources
NML4 NCA4	Location 4 - Warwick Farm Station Car Park	Monthly Monitoring - check of background noise levels	9/11/2021 10:59	47	66	L _{max} – 83dB L _{min} – 43dB L ₁₀ – 67dB L ₉₀ – 45dB No project related construction occurring at time of monitoring in the vicinity. The acoustic environment is dominated by the rail corridor and train movements along with construction noise associated with construction of multi-story car park at Warwick Farm Station. All noise is attributable to background noise sources

ID# / NCA	Location	Reason for monitoring	Date/Time	NML dB(A)	L(A) _{eq(15min)} dB(A)	Comments
NML1 NCA1	Location 1 – 225 Railway Parade, Cabramatta	Possession WE29 OOHW Monitoring	27/11/21 14:38	43	67	<p>Lmax – 82dB Lmin – 51dB L10 – 71dB L90 – 54dB</p> <p>Monitoring for assessment of acoustics relating to hand installation of Vortok safety fencing incl delivery by hiab (<10km/hr).</p> <p>The acoustic environment is dominated by light vehicle and bus movements along Railway Pde with noise associated with buses replacing trains at Cabramatta Station.</p> <p>No project construction noise is audible. All noise is attributable to other noise sources.</p>
NML2 NCA2	Location 2 – 150 Broomfield Street, Cabramatta	Possession WE29 OOHW Monitoring	27/11/21 13:45	43	63	<p>Lmax – 90dB Lmin – 49dB L10 – 63dB L90 – 51dB</p> <p>Birds audible between 53-59dB</p> <p>Monitoring for assessment of acoustics relating to hand installation of Vortok safety fencing incl delivery by hiab (<10km/hr).</p> <p>The acoustic environment is dominated by the light vehicle movements 63-73 (incl max 89 @ passing WRX) along Broomfield St and construction noise associated with an excavator on private property works (51-57) and intermittent breaker noise from rail maintenance activities (50-60)</p> <p>All noise is attributable to non-project related noise sources</p>

ID# / NCA	Location	Reason for monitoring	Date/Time	NML dB(A)	L(A) _{eq(15min)} dB(A)	Comments
NML3 NCA3	Location 3 - Corner of Station Street and Lawrence Hargrave Road, Warwick Farm	Possession WE29 OOHW Monitoring	27/11/21 15:15	42	61	Lmax – 80dB Lmin – 52dB L10 – 60dB L90 – 55dB No project work in this vicinity. The acoustic environment is dominated by the traffic on the Hume Hwy and machinery noises from rail maintenance activities, however activities, however, seems they are on a break for 14mins of the 15min sample. All noise is attributable to non-project related noise sources

4. Vibration Monitoring Results

Vibration monitoring during the month was not required as no vibration intensive activities were carried out.