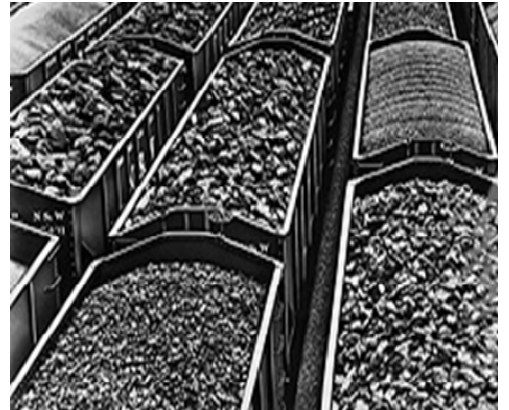


Southern Sydney Freight Line Environmental Protection Licence Monthly Report

Rev 0

September 2009



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Document Review and Approval

The following people reviewed this document:

Reviewer	Position	Date
Fiona Christiansen	SSFL Environmental Manager	
Signature:		

The following person approved this document:

Approver	Position	Date
Ray Miles	Project Director	
Signature:		

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1. INTRODUCTION

The Australian Rail Track Corporation (the ARTC) is a Commonwealth Government-owned company responsible for operating the interstate rail freight network that links Australia's major mainland capital cities, including Perth, Brisbane, Adelaide, Melbourne and Sydney.

The ARTC is presently undertaking a program of works to improve the efficiency and cost-effectiveness of rail freight services along the North-South Rail Corridor between Melbourne, Sydney and Brisbane. A major bottleneck in the rail freight network currently exists in southern Sydney, where freight trains share existing rail lines with the Sydney metropolitan passenger services operated by RailCorp. During morning and afternoon peak periods, freight services are not permitted to run due to passenger priority. As a result, freight services cannot arrive or depart Sydney at the optimum times.

To alleviate this bottleneck, the ARTC is constructing the Southern Sydney Freight Line (the SSFL), which will provide a dedicated freight line for a distance of 30 kilometres between Macarthur and Sefton in southern Sydney. The SSFL will provide a third track in the rail corridor specifically for freight services, allowing passenger and freight services to operate independently.

The SSFL will be constructed under a number of discrete contracts which have now been awarded to various contractors. The works that occurred during the period of September 2009 were mostly undertaken by Arencos, with bridge piling works carried out by Reed. On September 24th ARTC directed a temporary suspension of Reed construction activity. This is to allow ARTC to clear services affecting progress of the works, by way of removal, relocation or re-design. The anticipated duration of this suspension varies at different sites. Throughout September Gartner Rose continued its work on a number of stations and service relocations were carried out by O'Donnell Griffin (ODG). Track work was undertaken John Holland Rail and Lang O'Rourke carried out work at the Liverpool Sectioning Hut.

The Weekend 11 and 12 rail possessions were held in September from the 12th to 13th and 19th to 20th of September respectively. Contractors Arencos, Reed, Gartner Rose, ODG and John Holland Rail all worked during possession 11. Arencos used the possession to perform piling work at Sefton Dive and Liverpool Deck Bridge. Arencos also installed side bridge trusses and associated tie-down support beams at Prospect Creek Bridge. In this period Reed worked from Shepherd Street to Casula predominantly doing earthworks, piling works, sheet piling works, anchoring works and retaining wall works. Gartner Rose also worked at Sefton Station during the Weekend 11 possession.

Contractors Reed, Gartner Rose, ODG and John Holland Rail were engaged during the Weekend 12 possession. Reed performed piling works and earthworks across the project. Additionally, they installed several girders planks, headstocks and culverts. Gartner Rose undertook work at Minto, Casula and Campbelltown stations.

ODG used possessions 11 and 12 to relocate services and, also in both weekends, JHR removed redundant overhead wiring and overhead wiring structures as well as undertook various track works.

2. PURPOSE OF THE REPORT

The purpose of this report is to provide environmental monitoring, compliance and complaints management information to meet the requirements of condition R4 of Environmental Protection Licence No. 12971.

3. SUMMARY OF ACTIVITY IN SEPTEMBER 2009

A breakdown of the on-site activities during September has been provided in Table 1.

Table 1: Summary of Activity in September 2009

Location	Description of Works	Contractor
Prospect Creek Bridge (26.200km)	Installation of trusses of the main span of the rail underbridge and installation of new pedestrian bridge.	Arengo
Liverpool Pile Slab (35.12km to 35.32km)	Significant piling work was performed and two-thirds of the deck in the temporary platform was completed.	Arengo
Sefton Dive (21.02km to 22.38km)	Piling work and work on the crib wall.	Arengo
(20.77km to 27.68km)	Sheet piling, pre-stressed anchor installation; installation of pile caps and noise column steel, rocknails, shotcrete and bulk earthworks; installation of Terramesh and retaining walls; piling, pilecap beam construction and bulk earthworks.	Arengo
Miller Road Overbridge (22.830km to 22.930km)	Anchor Installation	Arengo
Bareena Street Overbridge (27.70km)	Anchor Installation	Arengo
Chester Hill Road Overbridge (22.21km)	Covered walkway northern transition	Arengo
Hector Street Underbridge (21.62km)	Completion of footpath and barrier on both sides of Hector Street.	Arengo
Generally throughout site	Continued potholing works to investigate underground services, especially in stations	Reed
Generally throughout site	Detailed site survey, boundary setout, control setout and re-survey	Reed
Throughout site	Box culvert works at E&RW2- (South of Bareena street to Woodbrook Road), E&RW3- (Woodbrook road to city side of Glenfield station) and E& RW4- (Country side of Ingleburn station to approx 58,700km	Reed

Location	Description of Works	Contractor
(37.120km to 37.519km)	Piling works for retaining wall structures RW 250, 280, 290 (Shepherd Street towards Woodbrook Road)	Reed
Sussex Street Bridge (36.29km)	Install precast girders	Reed
Shepherd Street Bridge (36.29km)	Installation of girders	Reed
Glenfield Creek Bridges (37.6km to 37.7km)	Complete Bridge Deck Works	Reed
Bunbury Curran Bridge (47.100km to 47.30km)	Continued headstocks and completed installation of precast girders and Super Ts	Reed
(37.62km to 41.62km)	Reinforced earth walls in E&RW2 (South of Bareena street to Woodbrook Road)	Reed
Sefton Station (Ch21.10km)	Installation of anti throw screen on the Sefton footbridge. Installation of roofs on lift shafts. Construction of porches leading to lift doors.	Gartner Rose
Leightonfield (23.490km)	Construction of deflection walls.	Gartner Rose
Carramar Station (25.9km to 26.0km)	Work on the underpass	Gartner Rose
Cabramatta Station (31.9km to 32.1 km)	Clearing and levelling in preparation for construction of retaining wall	Gartner Rose
Warwick Farm Station (34.000km)	Construction of lift pits closes to the up and down lines	Gartner Rose
Casula Station (38.710 km to 38.835km)	Construction of lift pits for both the up and down platforms.	Gartner Rose
Leumeah Station (52.5km to 52.6km)	Construction of lift pit, construction of retaining wall, minor adjustments to the car park	Gartner Rose
MacArthur Station (56.00km)	Construction of deflection wall	Gartner Rose
Minto Station (49.600km to 49.785km)	Bus stops relocated and kerb re-aligned. Significant excavation and levelling.	Gartner Rose
Campbelltown Station (54.65km)	Significant piling work	Gartner Rose

Location	Description of Works	Contractor
(19.6km to 20.9km)	Install galvanised steel troughing and Energy Australia Works	ODG
(20.9km to 21.299km)	Relocate cable equipment and cable route	ODG
(40.6km to 40.9km)	Glenfield Road and area cable and pleie locating	ODG
Sefton Dive (21.500km)	Run wires for High Voltage	ODG
Wellington Road (21.600km to 22.300km)	Run Wires for High Voltage	ODG
Miller Road, Chester Hill (22.800km to 22.900km)	Run Wires for High Voltage	ODG
West Street, Cabramatta (27.850km)	Run Wires for High Voltage	ODG
Main South Line, Broomfield Street, Cabramatta (32.649km)	Modifications/Alterations to signalling bungalow	John Holland Rail
Main South Line, near M5 bridge, Liverpool (37.359km to 37.88km)	Installed insulators for overhead wiring (OHW)	John Holland Rail
36.360km to 36.550km	Work at roof of sectioning hut. Trenching and laying conduits.	Lang O'Rourke

4. NOISE AND VIBRATION MONITORING RESULTS

Noise and vibration monitoring continued throughout September 2009, undertaken periodically in accordance with Condition M7 of the Environmental Protection Licence.

4.1 NOISE MONITORING

Condition R.41(c) of the EPL requires that ARTC provide graphical representations of noise monitoring results obtained over the life of the project. Noise monitoring locations vary from month to month. Sufficient data has now been gathered at: 86 Riverpark Drive, Slessor Road Casula, Dana Parade Sefton Dive and 10 Sussex Street Cabramatta for trends to be observed. The results of the noise variations at these sites over the last 6 months are displayed graphically below. Appendix A includes a comprehensive list of locations where noise monitoring has been undertaken.

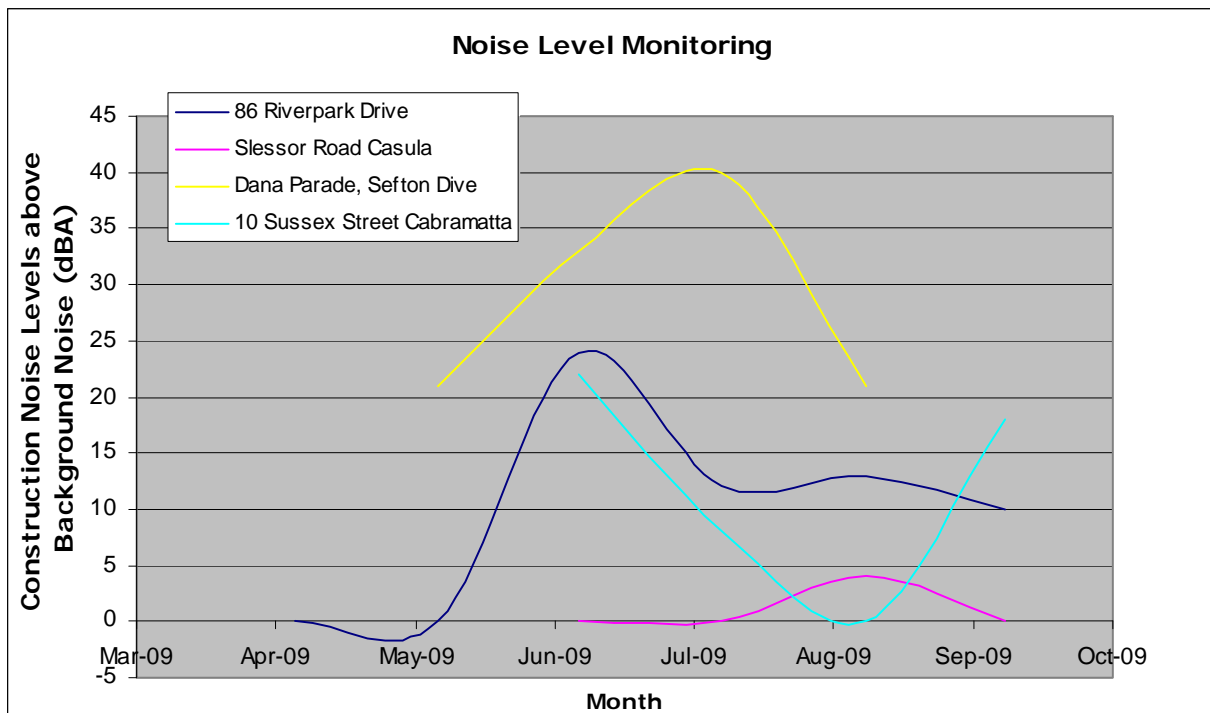


Figure 1: Noise Monitoring Trend Summary

During the month of September noise monitoring was undertaken at thirteen (13) locations along the length of the project. The results of the monitoring are provided in Table 2.

Table 2: Summary of Noise Monitoring – September 2009

Location	Date	Background Noise Levels dB(A)	Equipment/Activities	Result dB(A)
2 Moore Street, Canley Vale	12 September 2009	40	Noise emanating from Arenco's construction site at Prospect Creek Bridge	72
170 Sandal Crescent, Carramar	12 September 2009	37	Noise emanating from Arenco's construction site at Prospect Creek bridge	64
10 Wellington Road, Chester Hill	2 September 2009	44	Insertion of a piling sheet	82.5
12-14 Wellington Road, Chester Hill	2 September 2009	44	Insertion of a piling sheet	84.5
109 Wellington Road, Sefton	30 September 2009	45	Sheet piling operation	79
79A Congressional Drive, Liverpool South	12 September 2009	48	Beeper	58
10 Sussex Street, Cabramatta	22 September	67	Street sweeper	85

Location	Date	Background Noise Levels dB(A)	Equipment/Activities	Result dB(A)
	2009			
Jacqui Osmond Softball Centre	22 September 2009	58	Clanging	62
86 Riverpark Drive, Liverpool (Adjacent to Shepherd Street Bridge)	22 September 2009	66	Truck brake air release	75
13 Slessor Road, Casula	22 September 2009	54	General construction	50
24 Railway Parade, Glenfield	22 September 2009	71	Water Cart	58
64A Freeman CCT, Ingleburn	22 September 2009	63	Grader	62
20 Lakewood Crescent, Casula	22 September 2009	70	Piling Rig	76
* Measurements carried out at close distance to works and projected to sensitive receptor				

The noise monitoring results for a number of the activities exceeded the background noise level by more than 10 dB(A) and, according to the EPA New South Wales Construction Noise Guideline, all reasonable and feasible mitigation measures should be implemented to reduce this. ARTC Contractors have adopted measures outlined in Section 04 of the EPL as well as recommendations contained within the Construction Noise & Vibration Impact Statements prepared for the SSFL Project.

ARTC will continue to provide additional mitigation measures for 'moderately intrusive noise levels' adhering to requirements under the CEMP. Details of mitigation measures to be applied in each case where the noise level of construction activities exceeded the background noise level (noise goal) by more than 10 dB(A) are listed below in Table 3.

Table 3: Summary of Additional Noise Mitigation Measures – September 2009

Location	Date	Equipment/Activities	Level above Background Noise dB(A)	Mitigation Measures to be applied
2 Moore Street, Canley Vale	12 September 2009	Noise emanating from Arenco's construction site at Prospect Creek Bridge	32	Monitoring at this location was undertaken during the Weekend 11 possession to observe the impact of out of hours construction activity on the neighbouring area. This peak noise level was reached early evening on the Saturday of the possession with the intention that residents would not be inconvenienced by the activity later in the night. Super silence light generators were used in conjunction with this activity to mitigate the overall noise impact on the community. ARTC offered residents impacted through the night by construction noise in this area alternative accommodation during the Weekend 11 possession.
170 Sandal Crescent, Carramar	12 September 2009	Noise emanating from Arenco's construction site at Prospect Creek Bridge	27	(as above)
10 Wellington Road, Chester Hill	2 September 2009	Insertion of a piling sheet	38.5	Noise monitoring was for intensive works emanating from sheet piling. In this instance noise/vibration were elevated due to piles impacting upon railway sleepers. The Contractors have utilised several methods to reduce noise levels at source and impacts on surrounding community and environment. Actions undertaken include staging noisy works to within the nominated period, conducting the work as efficiently as possible, prohibiting supporting noisy works (chains dropping, metal on metal contact), investigating work alternatives to sheet piling and liaising with the ARTC's Community Manager on the issue.
12-14 Wellington Road, Chester Hill	2 September 2009	Insertion of a piling sheet	38.5	As above
109 Wellington Road, Sefton	30 September 2009	Sheet piling operation	34	As above

10 Sussex Street, Cabramatta	22 September 2009	Street sweeper	18	Further investigations into the source of the excessive noise are being undertaken and monitoring will continue for similar works.
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It is noted that there were three (3) complaints regarding construction noise received from residents in this area during September 2009.

For full details of the noise monitoring undertaken in September 2009, please refer to Appendices B, C, D, E and F.

4.2 VIBRATION MONITORING

Vibration monitoring was undertaken in accordance with condition M7 at Prospect Creek during September 2009. The results of the monitoring undertaken are provided in Table 4. For details of the vibration monitoring that was undertaken in September 2009, please refer to Appendix F.

Table 4: Summary of Vibration Monitoring- September 2009

Location	Date	Equipment/Activities	Result
10 Sussex Street Cabramatta	17 September 2009	45m from Heavy Machinery	Well below acceptable Vibration Dose Value for intermittent vibration at residences from the DECC Assessing Vibration: a technical guide. AND Lower than the structural damage vibration levels for residential dwelling from the German Standard: Structural vibration –Part 3: Effects of vibration on structures (DIN 4150-3)
64 Freeman Cct, Ingleburn	17 September 2009	80m from a pad foot roller and grader	Well below acceptable Vibration Dose Value for intermittent vibration at residences from the DECC Assessing Vibration: a technical guide. AND Lower than the structural damage vibration levels for residential dwelling from the German Standard: Structural vibration –Part 3: Effects of vibration on structures (DIN 4150-3)
20 Lakewood Crescent, Casula	19 September 2009	50m from a piling rig.	Levels are well within site specific vibration goal of 5mm/s (DIN 4150) and are unlikely to have potential to cause cosmetic damage.

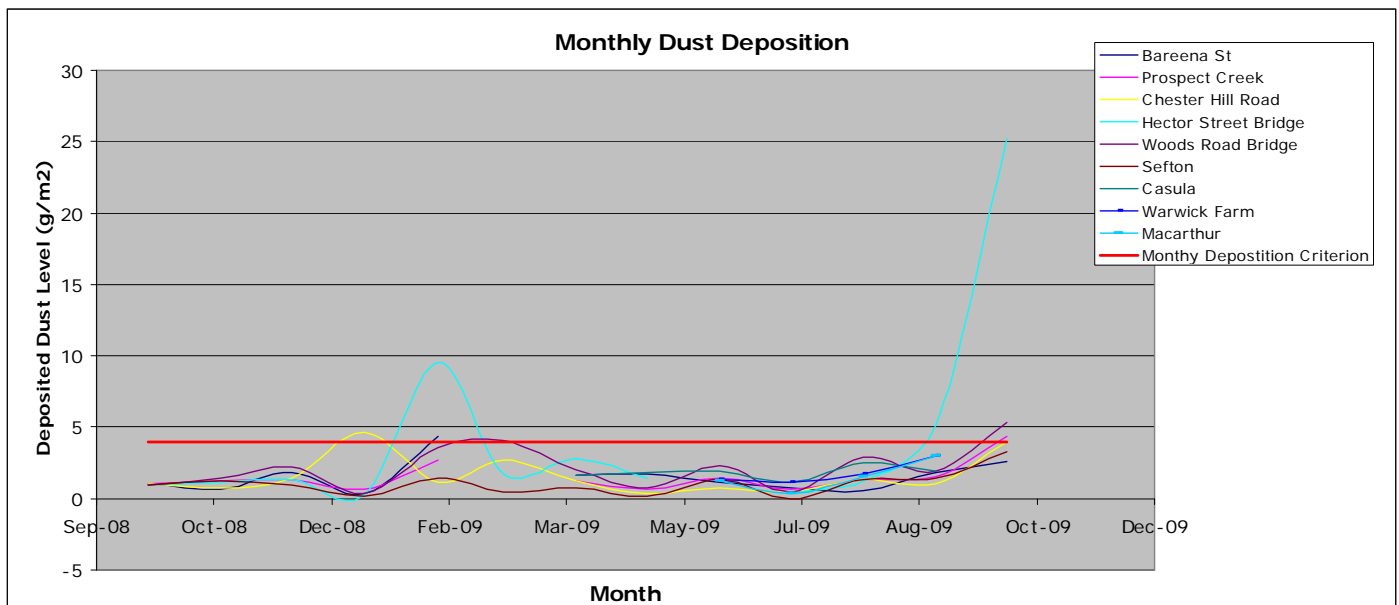
4.3 COMPLAINT NOISE AND VIBRATION MONITORING

There two (2) complaints during September 2009 in relation to vibration and three (3) complaints in relation to construction noise. For details of complaints received in September 2009, please refer to **Section 7**.

5. DUST MONITORING RESULTS

Dust monitoring was carried out during September 2009 in accordance with Condition M8 of the EPL. The results of this analysis can be found in Appendix G. In accordance with requirements set out under R4.1(c) of the license, ARTC has prepared a graphical representation of monthly dust deposition results measured at the following project sites:

- Bareena Street
- Prospect Creek Bridge
- Chester Hill Road Bridge
- Hector Street Bridge
- Woods Road Bridge
- Sefton
- Casula Station
- Warwick Farm Station
- Macarthur Station



The results show that the level of deposited dust along the length of the SSFL Project, during the month of September was below the maximum total deposited dust level of 4g/m²/month, stipulated in the DECC's Approved Methods for Modelling and Assessment of Air Pollutants in NSW (2005), at all locations except Prospect Creek Bridge, Hector Street Bridge and Woods Road Bridge. At the time of preparation of this report, dust monitoring reports had not been received for the southern project areas of Warwick Farm, Casula and Macarthur.

It should be noted that dust monitoring during September 2009 was compromised by two severe dust storms: on Wednesday 23rd September and Saturday 26th September.

It should further be noted that the dust monitoring gauge at the Hector Street is positioned below road level and most likely captures dust emitted both from excavation work and substantial track movements taking excavated material from the site. This monitor was relocated to a more suitable location at the end of September 2009 contributing to a significantly high dust reading.

5.1 DESCRIPTION AND EVALUATION OF ON SITE DUST MONITORING

There was one (1) complaint relating to dust during this reporting period. For full details of complaints received in September, please refer to **Section 7**.

5.2 DUST MANAGEMENT MEASURES

A set of comprehensive controls were employed to minimise dust from on site activities. The range of controls is detailed in the Dust Management Sub Plan (ARTC CEMP).

Controls utilised during the reporting period included:

- Using water carts to control dust emissions during works and keeping exposed excavation surfaces dampened to control dust generation;
- Ensuring vehicle speeds within the worksite areas are kept to a minimum;
- Preventing and where necessary cleaning any dirt tracked onto public roadways from construction vehicles;
- Covering spoil loads and securing tailgates prior to trucks leaving the worksite;
- Being prepared to cease/ modify work practices if excessive dust generation from construction activities occurs (e.g. from high winds, surface dirt accumulation etc), until dust emissions can be controlled. This action was not required during the month; and
- Conducting regular visual inspections of worksites to assess effectiveness of dust control measures.

5.3 WIND MONITORING

Weather stations are in place at two (2) locations along the length of the project, one at Llewellyn Avenue, Villawood and the other at Manning Street, Warwick Farm. These weather stations monitor wind conditions, directional and velocity as well as temperature and humidity.

At the Llewellyn Avenue Site, the average wind speed for the period of September 2009 was 4.687 km/h, with the maximum wind gust recorded at 30.6 km/h on 28 September 2009.

At the Manning Street Site, the average wind speed for the period of September 2009 was 4.513km/h, with the maximum wind gust recorded at 30.6 km/h on 28 September 2009.

The Meteorological Monitoring Results, including wind roses, for September 2009 are included in Appendices H and I.

6. RE-USE OF SUITABLE EXCAVATED MATERIAL WITHIN THE PREMISES

Areco have recorded the removal and placement of all excavated material in accordance with condition R8 of the Environmental Protection License. This information is provided in Appendix J.

7. COMMUNITY CONSULTATION AND COMPLAINTS MANAGEMENT

7.1 COMPLAINTS SUMMARY

There were twenty-four (24) community complaints received by ARTC in association with SSFL project work during the month of September. Of these, three (3) were noise related and sixteen (16) were non-environmental. Graphical representations of the complaints received during September 2009 and the preceding months are provided in Appendix K.

7.2 COMMUNITY CONSULTATION

The following Community Liaison Group meetings have been held during September.

- Fairfield CLG 2nd September 2009
- Bankstown CLG 9th September 2009
- Liverpool/Campbelltown CLG 16th September 2009

The following Public Meetings have been held during September:

- Public Meeting- Bankstown 17th September 2009

Agenda and meeting notes are available on the project website www.ssf.artc.com.au.