

Southern Sydney Freight Line Environmental Protection Licence Monthly Report

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The following people reviewed this document:

Reviewer	Position	Date
Fiona Christiansen	SSFL Environmental Manager	
Signature:		

The following person approved this document:

Approver	Position	Date
Greg Mullens	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 June 2009 were mostly undertaken by Arengo, with bridge piling works carried out by Reed. Gartner Rose has continued its work on a number of stations and service relocations were carried out by O'Donnell Griffin (ODG), John Holland Rail and, to a lesser extent, Lang O'Rourke.

The weekend 48 rail possession was held on the 31st of May to the 1st of June. Arengo used this possession to undertake work at Chester Hill, Miller Road and Woodville Road overbridges. Critical piling was completed by Reed during this possession at Mill Park, Casula, between Shepherd Street and Woodbrook Road, Liverpool Stabling Yard and the Glenfield Flyover. ODG used the possession to relocate services and JHR removed redundant over head wiring and overhead wiring structures.

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 JUNE 2009

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

Table 1: Summary of Activity in June 2009

Location	Description of Works	Contractor
Sefton Dive (21.02km to 22.38km)	Installation of precast concrete headstocks at underbridge. Up goods track formation works, culvert extension under the existing Up and Down Goods tracks. Capping beam- formwork erection, reinforcement fixing and concreting.	Arengo

Location	Description of Works	Contractor
	Construction of jersey barrier - formwork erection, reinforcement fixing and concreting. Earthworks. Piling- piling involves drilling pile, reinforcement lowering and concreting.	
20.77km to 27.68km	Delineation fencing, piling for noise wall, clearing and grubbing, stripping of top soil. Placement of temporary prestressed anchors and prestressing completed at Hector Street- anchor installation involves drilling holes, anchor fabrication, insertion of anchor, grouting and stressing. Bulk excavation, clearing of asbestos. Rock nail wall at Chester Hill Road to Miller Street, footing beam, crib wall construction. Villawood Station- earthworks, rocknail work- drilling hole, lowering reinforcement bar and grouting, gabion wall footing- earthworks.	Arenco
22.21km (Chester Hill Overbridge)	Piling for abutment, headstock construction work, final bridge plan installed, structural steel walkway installed.	Arenco
21.62km (Hector Street Underbridge)	Capping Beam construction work, abutments completed, pier piles completed, demolition of existing crash beam corbel, headstock commenced construction,	Arenco
23.80km (Llewellyn Culver)	Abutment and curtain wall completed	Arenco
24.14km (Leightonfield Culvert)	Reinforcement installed for headstock and curtain walls	Arenco
26.20km	Piling work, pier columns and headstocks construction.	Arenco
35.12km to 35.32km	Piling at south end of the bridge and slab construction works involving formwork erection, reinforcement fixing and concreting. Temporary platform work- involves installation of mini piles and platform on top for piling rig to work from. Piling in the middle section of Bridge. Anchor installation work.	Arenco
Liverpool Hospital Bridges	Road Bridge- formwork erection, reinforcement fixing, concreting. Pedestrian Bridge- pier construction work, fabrication of pedestrian bridge steel truss, steel truss roofing, glazing	Arenco

Location	Description of Works	Contractor
	and sheeting are being installed.	
Length of the job	Continued potholing works along the freight line to investigate underground services, especially on stations and submitted verification documents.	Reed
Length of the job	Continued detailed site survey, boundary setout and control setout	Reed
37.200km	Commenced piling works for retaining wall structure RW 280 between Mill Park bridges.	Reed
37.200km	Commenced sheet piling works for abutments of Mill Park Bridges	Reed
36.400km	Sheet piling of Shepherd st abutment works	Reed
36.400km	Continued piling works in Shepherd St. Bridge	Reed
37.200km	Continued piling works for Mill Park 1 & 2 Bridges	Reed
37.600km	Continued piling works for Woodbrook Road Bridge	Reed
36.200km	Completed piling works for Liverpool Yard Access Bridge	Reed
40.200km	Completed piling works for BR6 Glenfield Flyover	Reed
40.200km	Completed piling caps for BR6 Glenfield Flyover	Reed
40.200km	Commenced erection of precast columns in BR6 Glenfield Flyover	Reed
39.000km	Commenced sheet piling works for Glenfield Creek Bridge	Reed
47.180km	Commenced construction piling platform for Banbury Curran Bridge	Reed
Throughout the job	Continued clearing works	Reed
Throughout the job	Continued work area delineation fencing works	Reed
37.620km to 38.990km; 46.260km-	Commenced earthworks, stripping of topsoil and removal of unsuitable subgrade	Reed

Location	Description of Works	Contractor
54.100km; 35.340km to 37.620		
33.000km	Commenced clearing works in Cabramatta Creek and Sussex St bridges.	Reed
Sefton Station (Ch 21.10km)	Centre platform and UP side lift pits waterproofed and reinforcement installed ready to pour. Poured pile cap to centre platform and embedded stub columns for bridge support columns. Excavated retaining wall pile cap. Excavate lift pit	Gartner Rose
Leightonfield (23.490km)	Piling completed Dewatering due to inclement weather Blinding slabs installed Piles trimmed to required finished level	Gartner Rose
Carramar Station (25.9km to 26.0km)	Footings partially excavated.	Gartner Rose
Casula Station (38.710km to 38.835km)	Piling completed to the up and down lift shafts.	Gartner Rose
Leumeah Station (52.5km to 52.6km)	Piling work	Gartner Rose
Macarthur Station (56.00km)	Piling completed, dowels installed and blinding slab poured.	Gartner Rose
36.485km to 37.59km	Relocation work	ODG
53.5km (Campbelltown Station)	Relocation work	ODG
Gascoigne Rd/ Wellington Rd to Carlingford Street UBD 251	Investigative work	ODG
20.3km to 20.4km	Preparatory work at 356A/B crossover on goods line	John Holland Rail
36.360km to 36.550km	Construction of sectioning hut.	Lang O'Rourke

4. NOISE AND VIBRATION MONITORING RESULTS

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

4.1 NOISE MONITORING

In accordance with R4.1 (c) of the EPL the ARTC will be providing graphical representations of noise monitoring results obtained over the life the project. To date, noise monitoring locations have varied from month to month. When these locations become consistent and sufficient data is accumulated, results will be displayed graphically. Included in the appendix (Appendix A) is a table indicating the locations where noise monitoring has been undertaken.

During the month of June noise monitoring was undertaken at nine (9) locations along the length of the project. The results of the monitoring are provided in Table 2.

Table 2: Summary of Noise Monitoring – June 2009

Location	Date	Background Noise (Noise Goal) dB(A)	Equipment/Activities	Result dB(A)
2 Moore street, Canley Vale	30 June 2009	34 dBA	Pouring of concrete into a steel case (phase of the piling operation)	27 dBA
22 Hope Street, Regents Park	27 June 2009	23 dBA	Compact Grader NorAm 65E Turbo Excavator CAT 321C	29 dBA
Unit 13 Dana Parade, Sefton Dive	28 June 2009	38 dBA	Compact Grader NorAm 65E Turbo Excavator CAT 321C Roller CAT CS-563E	29-38 dBA
10 Sussex Street, Cabramatta	11 June 2009	70 dBA	Sheet Piling Piling Rig idle Excavator	25 dBA
Jacqui Osmond Softball Centre (360m East of Cabramatta Creek Bridge)	11 June 2009	55 dBA	Grubbing	8 dBA
86 Riverpark Drive, Liverpool (Adjacent Shepherd St Bridge)	11 June 2009	69 dBA	Excavator Bobcat Bobcat Rev Alarm Form working Drill Rig	23 dBA
Woodbrook Rd, Casula	11 June 2009	47 dBA	On site truck movement	7 dBA
29 Slessor Road, Casula	11 June 2009	42 dBA	Excavator	0 dBA

Location	Date	Background Noise (Noise Goal) dB(A)	Equipment/Activities	Result dB(A)
15 O'Sullivan Road, Leumeah	11 June 2009	47 dBA	Excavator	14 dBA
* Measurements carried out at close distance to works and projected to sensitive receptor				

The results for a number of the activities exceeded the background noise level (noise goal) by more than 10 dB(A) and according to the EPA New South Wales Construction Noise Guideline. ARTC's contractors have undertaken all reasonable and feasible mitigation measures to minimise construction noise and have adopted measures outlined in Section 04 of the EPL and in accordance with the 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' in accordance with 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 – June 2009

Location	Date	Equipment/Activities	Level above Background Noise dB(A)	Mitigation Measures to be applied
2 Moore Street, Canley Vale	30 June 2009	Pouring of concrete into steel case (phase of piling operation)	27 dBA	Concrete curing was a one day activity which is now complete. All operations related to concrete have pouring have ceased. The majority of future work will involve precast concrete elements.
22 Hope Street, Regents Park	27 June 2009	Compactor Grader NorAm 65E Turbo and Excavator CAT 321C	29 dBA	All formation works on Up Goods have been completed and handed over. Arenco operations in this area continued up until the beginning of July but will no longer occur due to handover.
Unit 13 Dana Parade, Sefton Dive	27 June 2009	Compact Grade, Excavator, Roller CAT	29-38 dBA	All formation works on Up Goods have been completed and handed over. Arenco operations in this area continued up until the beginning of July but will no longer occur due to handover.
10 Sussex Street, Cabramatta	11 June 2009	Sheet piling, piling rig idle, roller	25 dBA	Investigations into respite periods. Work will be undertaken within approved hours. Monitoring will continue for similar works.

				Where work occurs during out of hours and at night ARTC provides respite orders and alternative accommodation to residents most affected.
86 Riverpark Drive Liverpool (Adjacent Shepherd St Bridge)	11 June 2009	Excavator Bobcat Bobcat Rev Alarm Formworking Drill Rig	23 dBA	Investigations into respite periods. Work will be undertaken within approved hours. Monitoring will continue for similar works. Where work occurs during out of hours and at night ARTC provides respite orders and alternative accommodation to residents most affected.
15 O'Sullivan Road, Leumeah	11 June 2009	Excavator	14 dBA	Investigations into respite periods. Work will be undertaken within approved hours. Monitoring will continue for similar works.

It is noted that there were three (3) complaints regarding construction noise received from residents in this area during June 2009.

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

4.2 VIBRATION MONITORING

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

Table 4: Summary of Vibration Monitoring- June 2009

Location	Date	Equipment/Activities	Result
10 Sussex Street, Cabramatta	11 June 2009	Sheet Piling	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)
86 Riverpark Drive, Liverpool	11 June 2009	Roller operations	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)

4.3 COMPLAINT NOISE AND VIBRATION MONITORING

There was one (1) complaint during June 2009 in relation to vibration and three (3) complaints in relation to construction noise. For details of complaints received in June 2009, please refer to **Section 8**.

5. DUST MONITORING RESULTS

Dust monitoring was carried out during June 2009 in accordance with Condition M8 of the EPL. The results of the analysis can be found in Appendix F.

The results show that the level of deposited dust inside the railway corridor, near the residential premises that are potentially the most affected by air pollution (dust) from construction of the part of Southern Sydney Freight Line between Cooper Road, Sefton, and West Street (South), Canley Vale was below the maximum total deposited dust level of $4g/m^2/month$, stipulated in the DECC's Approved Methods for Modelling and Assessment of Air Pollutants in NSW (2005), at all locations.

5.1 DESCRIPTION AND EVALUATION OF ON SITE DUST MONITORING

There were no complaints relating to dust during this reporting period. For full details of complaints received in June, please refer to **Section 8**.

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 June 2009 was 2.062 km/h, with the maximum wind gust recorded at 18.4 km/h on 11 June 2009.

At the Manning Street Site, the average wind speed for the period of June 2009 was 2.117 km/h, with the maximum wind gust recorded at 22.1km/h on 10 June 2009.

The Meteorological Monitoring Results, including wind roses, for June 2009 are included in Appendix G and H.

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

Arengo 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 I.

7. NON-COMPLIANCES

In accordance with Section R.4.1 ARTC is required to report the nature, scope and duration of any non-compliances as well as any measures taken, or proposed to be taken to remedy, any non-compliance. There are three (3) non-compliances which occurred during June.

On 24 June 2009 the ARTC Environmental Manager received a message that a water main had been hit during clearing and grubbing works along the Georges River near Liverpool Station at Lighthouse Park. Reed Contractors implemented additional erosion and sediment controls. Reed has not as yet informed ARTC of measures taken to prevent similar non-compliances occurring in future.

On 26 June 2009 it was reported that John Holland Rail Contractors were working outside Project premises on the northern side of the Chullora Goods Line. It was further noted that erosion and sediment controls had not been implemented in this work area and soil had been deposited in the street gutter upstream from an unprotected stormwater inlet pit. In response to this incident, ARTC will provide training to John Holland Rail project managers covering obligations under the Project Approval and the Environmental Protection License. Furthermore, ARTC will attempt to improve communication with DECC regarding premise boundary request, better identifying the purpose and urgency of the request to facilitate approvals within the desired timeframe.

On 30 June 2009 ARTC was informed of the stripping of tree branches from a threatened botanical species hit while off-loading construction material from a John Holland Rail Traxcavator. These branches had been protruding outside the demarcation boundary, located near the “up” track on Amy Street, Regents Park. As a corrective measure, all John Holland site staff were given “site specific inductions” at the Contractors Auburn Depot where workers were informed of the existence of the threatened botanical species in the vicinity.

8. COMMUNITY CONSULTATION AND COMPLAINTS MANAGEMENT

8.1 COMPLAINTS SUMMARY

There were fifteen (15) community complaints received by ARTC in association with SSFL project work during the month of May. Of these, three (3) were noise related, eight (8) were non-environmental and three (3) was not related to the project. Graphical representations of the complaints received during June 2009 and the preceding are provided in Appendix J.

8.2 COMMUNITY CONSULTATION

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

- Fairfield CLG
- Bankstown CLG
- Liverpool/Campbelltown CLG

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