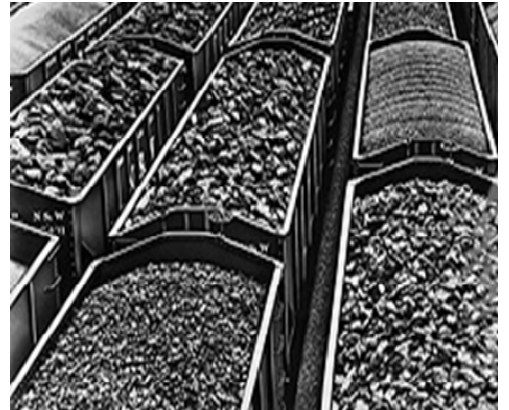


# Southern Sydney Freight Line Environmental Protection Licence Monthly Report

Rev 0

**November 2009**



### Document Details

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### Document Review and Approval

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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 were awarded to various contractors. At present Arenco and Reed, the earthworks and bridge contractors have been suspended across several areas of the project. Gartner Rose, responsible for station upgrade, and the John Holland track works contract have also been suspended. These suspensions are to provide ARTC with opportunity to clear services affecting completion of civil works by way of removal, relocation or re-design. Accordingly, priority has now been given to the expedition of service relocations under the ODG contract.

The Weekend 20 rail possession was held on the 14<sup>th</sup> and 15<sup>th</sup> of November. Contractors Arenco, Gartner Rose, ODG and John Holland Rail all worked during this possession. Arenco used the possession to undertake welded rail adjustment and anchor installation at Sefton Dive, underbridge piling on an existing abutment at the Chester Hill overbridge and shoring removal, formwork and backfilling work at the Woodville Road Overbridge. Gartner Rose carried out various works at Sefton and Carramar stations. ODG used the possession to install new power poles and perform rail underbores while John Holland Rail undertook overhead wiring work.

## 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 NOVEMBER 2009

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

Table 1: Summary of Activity in November 2009

Location	Description of Works	Contractor
Sefton Dive (21.02km to 22.38km)	Piling work and capping beam construction work.	Arenco

Location	Description of Works	Contractor
Woods Road, Sefton to Chester Hill Road, Chester Hill (20.77km to 22.15km)	Piling works- bore piling and sheet piling, earthworks for retaining wall, construction of terramesh wall, pile column construction work, shotcreting works, pile cap work.	Arengo
Chester Hill Road, Chester Hill to Woodville Road (22.15km to 23.1km)	Earthworks, shotcreting work, removal of power poles with overhead powerlines.	Arengo
Villawood Station Road to Prospect Creek (24.1km to 26.2km)	Earthworks, gabion wall construction, rocknail work, footing for gabion wall, shotcreting, completion of noise barrier.	Arengo
Prospect Creek to Bareena Street (26.2km to 27.65km)	Piling work, pile caps construction work, earthworks stripping.	Arengo
Chester Hill Road Overbridge (22.21km)	Piling work, underbridge excavation to formation level, installation of second row of rock anchors and shotcrete.	Arengo
Miller Road Overbridge (22.830km to 22.930km)	Temporary stabilised and sand infill completed, protection screen transition installed.	Arengo
Bareena Street Overbridge (27.70km)	Installation of balustrade and protection screen.	Arengo
Woodville Road Deflection Wall (24.248km to 24.320km)	Stripping of deflection wall forms, removals of side pile cap shoring, ballast reinstatement, installation of bird spiles.	Arengo
Prospect Creek Bridge (26.200km)	Removal of sheet piles cofferdams and reinstatement of embankments. Reinstatement of Moore St Cycleway, kerb and gutter, guard rail.	Arengo
Bridgeworks at Georges River (35.12km to 35.32km)	Piling work, concrete slab construction, prestressed anchor installation, structural steel permanent walkway fabricated.	Arengo
Generally throughout site	Ongoing maintenance of environmental and safety controls in suspended areas.	Reed
Earth and Retaining Wall 3 (at Woodbrook	Continuation of box culvert works in Earth and Retaining Wall 3 and Earth and	Reed

Location	Description of Works	Contractor
Road- 37.00km to Glenfield Station- 41.00km) and Earth and Retaining Wall 4 (Ingleburn-47.00km to Macarthur-58.00km)	Retaining Wall 4 commenced prior to the work suspension.	
Throughout site	Demobilisation in suspended areas.	Reed
Sussex Street Bridge (32.90km)	Handrail and walkway for Sussex St. Bridge completed. Completed concrete footpath reinstatement.	Reed
Cabramatta creek bridge and Sussex street bridge (32.950km)	Abutment works between Cabramatta Creek Bridge and Sussex St Bridge including rock lining and footpath.	Reed
Warwick Farm Station (34.00km)	Pile Wall under the Hume Highway, Warwick Farm.	Reed
Shepherd Street Bridge (36.3km)	Completed remaining two spans at Shepherd St Bridge.	Reed
Bunbury Curran Bridge (36.280)	Continuation of retaining wall.	Reed
37.400km	Piling works for retaining wall between Mill Park and Woodbrook Road.	Reed
37.220km	Construction of retaining wall between Mill Park Bridges 1 and 2 excluding backfill.	Reed
37.150km	Retaining Wall foundation treatment- north of Mill Park.	Reed
Bunbury Curran Bridge (47.18km)	Abutment works and handrails and walkways at Bunbury Curran Bridge.	Reed

Location	Description of Works	Contractor
Glenfield TIDC and Ethane Gas Line (41.16km to 40.54km)	Completed culverts.	Reed
Campbelltown Station (55.37km to 54.88km)	Completed culverts at Fishers Ghost Creek and Farrow Road including backfilling and wingwalls.	Reed
Leumeah Station (52.89km)	Completed culverts Leumeah Creek culvert, including wingwalls and backfilling.	Reed
Leumeah Station (52.46km)	Completed culverts Smith Creek Bridge 2, including wingwalls and backfilling.	Reed
Bareena Street (27.86km)	Completed installation of culverts.	Reed
Glenfield TIDC (40.54km)	Commenced earthworks at Glenfield Channel Diversion for the Tie-In Works.	Reed
Sefton Station (21.10km)	All works on the site have ceased. No further work will occur at Sefton Station until further notice and Gartner Rose have removed all site facilities. The station has been made safe for the period of the shut down.	Gartner Rose
Leightonfield Station (23.49km)	Works at Leightonfield are now complete.	Gartner Rose
Fourth Avenue Pedestrian Footbridge (27.203km to 27.286km)	All works at the footbridge are subject to the project suspension and will not proceed until further notice. Gartner Rose have demobilised from site and removed all site facilities previously established.	Gartner Rose
Carramar Station (25.9km to 26.0km)	Works at Carramar are now complete.	Gartner Rose
Cabramatta Station (31.9km to 32.1km)	Deflection walls are nearing completion and stair abutment is next to be poured. Other in-ground works for the new station building are largely complete and ready for work on the structure to commence in the new year. Fencing has been erected around the location of the new perpendicular parking to be constructed on	Gartner Rose

Location	Description of Works	Contractor
	<p>Railway Parade south of the overpass.</p> <p>Clearing, levelling and excavation is in progress in preparation for the construction of a retaining wall and new footpath.</p>	
<p>Casula Station (38.710 to 38.835 km)</p>	<p>Works at Casula have been suspended.</p> <p>Gartner Rose have demobilised from site and removal site facilities. The site has been made safe for the period of the suspension.</p>	<p>Gartner Rose</p>
<p>Warwick Farm Station (34.000km)</p>	<p>Works at Warwick Farm have been suspended.</p> <p>Gartner Rose have demobilised from site and removed site facilities. The site has been made safe for the period of the suspension.</p>	<p>Gartner Rose</p>
<p>Leumeah Station (52.5km to 52.6km)</p>	<p>Works at Leumeah Station have been suspended. Gartner Rose have demobilised from site and removed site facilities. The site has been made safe for the period of the suspension.</p>	<p>Gartner Rose</p>
<p>MacArthur Station (56.00km)</p>	<p>Works at Macarthur Station are now completed and Gartner Rose have disestablished the site.</p>	<p>Gartner Rose</p>
<p>Minto Station (49.600km to 49.785km)</p>	<p>Works are continuing uninterrupted at Minto Station. The construction footprint has been claimed and alternative access arrangements have been put in place for the general public and commuters. The stairs have been demolished to make way for the construction of the new lift shaft and relocated stairs.</p> <p>Excavation has commenced and piling is in progress. Services searching and relocation of service continues.</p>	<p>Gartner Rose</p>
<p>Campbelltown Station (54.65km)</p>	<p>The suspension of works at Campbelltown has been partially lifted, with works for the new footbridge recommencing. Areas of work are the deflection wall for one set of stairs and the pile cap for another set. The remainder of the site has been made safe for the period of the suspension.</p>	<p>Gartner Rose</p>
<p>Carramar/Canley Vale (25.400km to 27.800km)</p>	<p>Supersucker boring of power pole holes, cover holes and place signage over holes. Moved power poles from down side of track to up side.</p>	<p>ODG</p>
<p>Woodbrook Road</p>	<p>Re-install aerials between power poles and</p>	<p>ODG</p>

Location	Description of Works	Contractor
(37.000km to 37.400km)	remove temporary stay wires.	
Miller Road to Villawood (22.700km to 23.000km)	Reset out poles positions from offset marks. Dress poles. Supersucking boring of pole holes, cover holes and place signage over holes. Install new poles. Rearrange aerials. Remove old poles and install earth stake at new pole. Install riser brackets and down earth conductors on poles.	ODG
Wellington Road, Sefton (22.000km to 22.100km)	Install new pole and stay wire to stay role. Remove old pole.	ODG
West Street Underground (27.600km to 27.800km)	Survey new pole. Back fill old pole holes.	ODG
Prospect Creek to West Creek (25.400km to 27.800km)	Install down earth conductors and insulators to Poles.	ODG
Glenfield (40.92km)	Conduits backfills, potholing.	ODG
Woods Road (22.5km)	Potholing.	ODG
Auburn Road Birrong (20.1km to 23.1km)	Watermain adjustment over Auburn Road.	ODG
Atkinson Street, Liverpool (30.870km-31.480km)	Pothole and survey.	ODG
Wellington Road (20.9km to 21.3km)	Services relocation.	ODG
Main South Line, Leightonfield Yard (22.86km to 24.476km)	Removal of OHW structures and some adjustments on either ends.	John Holland Rail
Main South Line, Sefton Station (20.800km to 22.00km)	Bonding and replacement of OHW components under footbridge.	John Holland Rail
Main South Line,	Relocation of galvanised steel trough	John Holland Rail

Location	Description of Works	Contractor
Broomfield St Cabramatta (32.250km to 32.850km)		
Main South Line (53.00km to 55.00km)	Marking up position on ground of cables and potholing of cable route by non destructive means.	John Holland Rail
Liverpool Sectioning Hut (36.360km to 36.550km)	Electrical works within building	Lang O'Rourke

#### 4. NOISE AND VIBRATION MONITORING RESULTS

Noise and vibration monitoring continued throughout November 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, 10 Sussex Street Cabramatta, Jacqui Osmond Softball Centre and Lakewood Crescent Casula 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 lists the locations where noise monitoring has occurred.

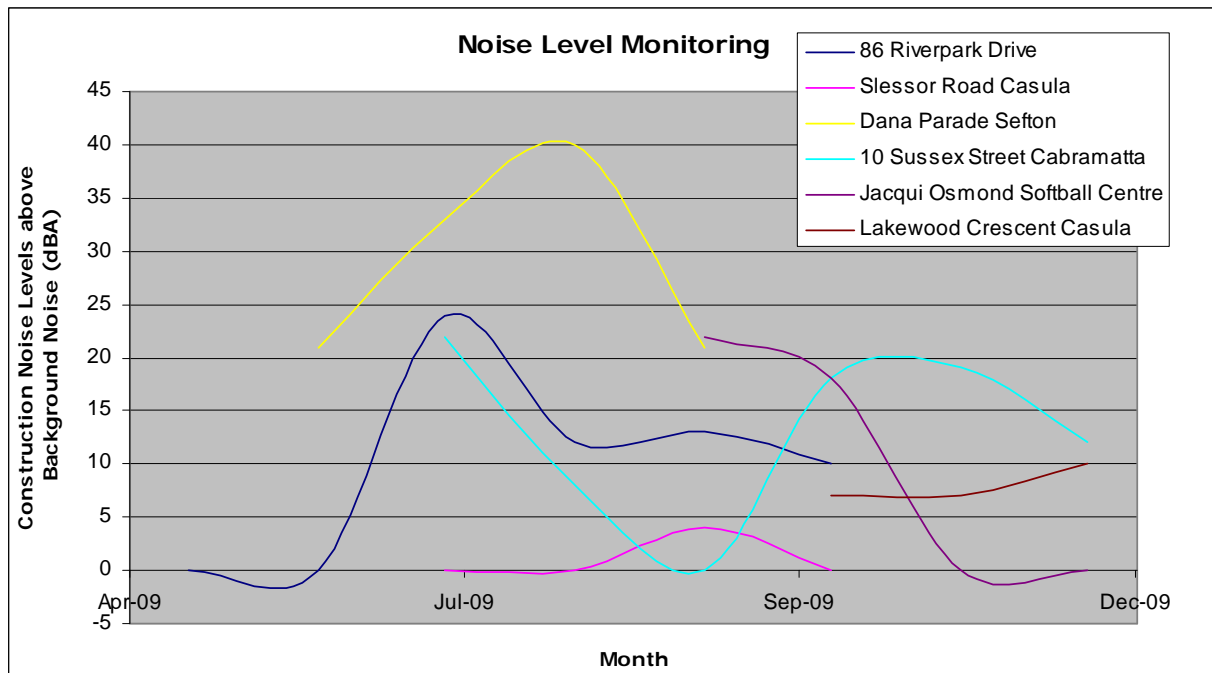


Figure 1: Noise Monitoring Trend Summary

During the month of November noise monitoring was undertaken at six (6) locations along the length of the project. The results of the monitoring are provided in Table 2.

Table 2: Summary of Noise Monitoring – November 2009

Location	Date	Background Noise Levels dB(A)	Equipment/Activities	Result dB(A)
91 Wellington Road, Sefton	14 and 15 November 2009	50	Pump operations	60
1 Edmund Street, Carramar	14 November 2009	40	Excavator, mobile crane and idling truck	70
Jacqui Osmond Softball Centre (300m East of Cabramatta Creek Bridge)	25 November 2009	59	No detectable construction noise	
10 Sussex Street, Campbelltown	25 November 2009	65	Excavator	77
18 Lakewood Crescent, Casula	25 November 2009	66	No detectable construction noise	
5 Callaway Campbelltown	25 November 2009	62	No detectable construction noise	

\* 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 – November 2009

Location	Date	Equipment/Activities	Level above Background Noise dB(A)	Mitigation Measures to be applied
91 Wellington Road, Carramar	14 and 15 November 2009	Pump operations	10	The noise reading in this instance was taken in the middle of the day while other construction activity was occurring and traffic flow was high. Accordingly, the elevated noise levels are not solely attributable to the contractor's activity. Hay bails are kept on stand by to reduce the impact on receivers where noise generated by an activity exceeds the background noise level by 10 dBA.
1 Edmund Street, Carramar	14 November 2009	Excavator, mobile crane and idling truck	30	Work by other contractors also contributed to these elevated noise readings. As this activity was planned to continue through the night ARTC offered alternative accommodation to residents most affected by the high noise impact.
10 Sussex Street, Campbelltown	25 November 2009	Excavator	12	This noise reading was caused by an excavator undertaking abutment works. Earthworks for this activity are now complete.

It is noted that there was 1 (one) complaint regarding construction noise received from residents in this area during November 2009.

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

## 4.2 VIBRATION MONITORING

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

**Table 4: Summary of Vibration Monitoring- November 2009**

Location	Date	Equipment/Activities	Result
10 Sussex Street Cabramatta	25 November 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)

### 4.3 COMPLAINT NOISE AND VIBRATION MONITORING

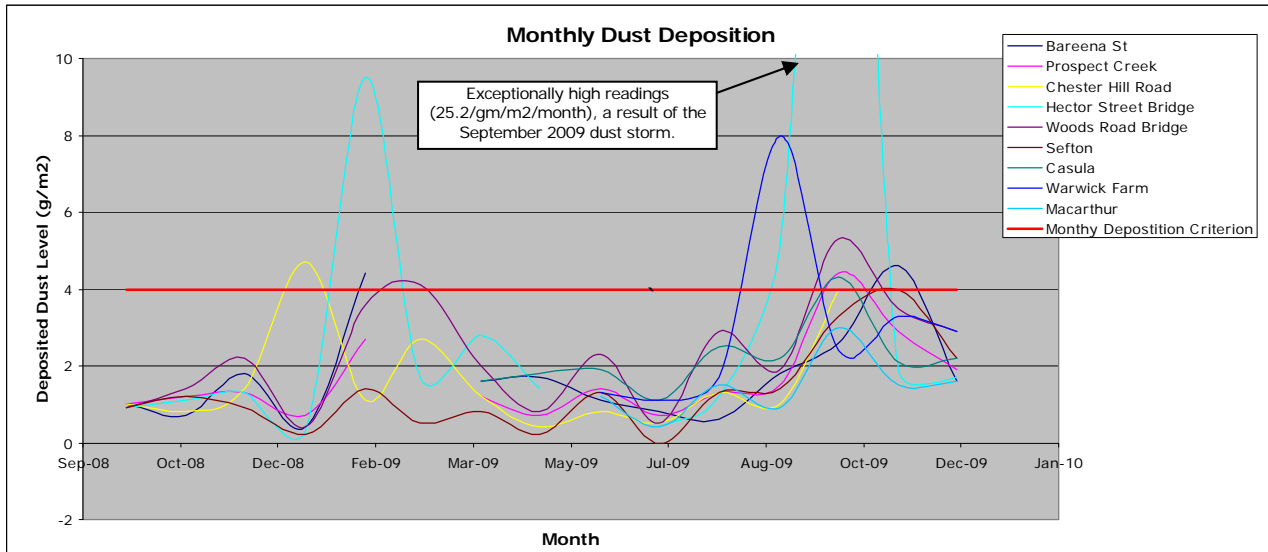
There were zero (0) complaints during November 2009 in relation to vibration and one (1) complaint in relation to construction noise. For details of complaints received in November 2009, please refer to **Section 7**.

## 5. DUST MONITORING RESULTS

Dust monitoring was carried out during November 2009 in accordance with Condition M8 of the EPL. The results of this analysis can be found in Appendices D and E.

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 November was below the maximum total deposited dust level of  $4\text{g/m}^2/\text{month}$ , 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 was one (1) complaint relating to dust during this reporting period. For full details of complaints received in November, 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 November 2009 was 4.337 km/h, with the maximum wind gust recorded at 23.3 km/h on 23 November 2009.

At the Manning Street Site, the average wind speed for the period of November 2009 was 3.807km/h, with the maximum wind gust recorded at 33.6km/h on 21 November 2009.

The Meteorological Monitoring Results, including wind roses, for November 2009 are included in Appendices F and G.

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

Due to the suspensions on earthworks activity there has been no re-use of excavated material during the month of November.

## **7. COMMUNITY CONSULTATION AND COMPLAINTS MANAGEMENT**

### **7.1 COMPLAINTS SUMMARY**

There were six (6) community complaints received by ARTC in association with SSFL project work during the month of November. Of these, one (1) was noise related and five (5) were non-environmental. Graphical representations of the complaints received during November 2009 and the preceding months are provided in Appendix H.

### **7.2 COMMUNITY CONSULTATION**

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

- Fairfield CLG 4<sup>th</sup> November 2009
- Bankstown CLG 11<sup>th</sup> November 2009
- Liverpool/Campbelltown CLG 18<sup>th</sup> November 2009

Agenda and meeting notes are available on the project website [www.ssfl.artc.com.au](http://www.ssfl.artc.com.au).