

Randwick-Botany Greens (RBG) Submission
Environmental Impact Statement
CBD to South East Light Rail ([CSELR](#)) project
December 2013

The Randwick-Botany Greens (RBG) note that congested cities around the world are turning to light rail as a solution. Australian Greens Senator [Scott Ludlum](#) when arguing for light rail in Perth has written that:

"Light rail has been introduced to more than 100 international cities in the past decade, making a spectacular comeback in the United States, East Asia and Europe."

RBG makes the following observations on the EIS for the CSELR.

- 1) **CBD TRAFFIC MOVEMENTS:** RBG acknowledges and agrees with the forecasted need to reduce bus movements in and out of the Sydney CBD by moving passengers over to a rail based system in peak travel times.
- 2) **INDUCED TRAFFIC PHENOMENON:** RBG accepts the argument that improvements to one of several competing transport systems will “induce” passengers to switch to that system. It is thus accepted that CSELR **if effectively implemented** will successfully see current car and bus travelers to the CBD moving over to rail in peak travel times.
- 3) **“DISENGAGEMENT” RE RESIDENTIAL DEVELOPMENT ISSUES:** The Urban Activation Precinct (UAP) proposals should be entirely separate from the issue of light rail. The justification of a South East rail system stems from the current needs of the existing residential capacity specified in Randwick City Council's Local Environmental Plan 2012, which includes 8,400 new dwelling targets set by the previous Labor State Government.
- 4) **CHOICE OF RAIL TYPE:** Light rail using existing road surfaces is preferable to the instillation of heavy rail for the following reasons:
 - It has minimal environmental impact and is vastly superior to road traffic emissions;
 - Will remain potentially operable in a declining fossil fuel future;
 - It is cost effective;
 - It is politically attainable in the medium term;

- It avoids community resentment of intrusive vibrations from tunneling activity and fears of potential property damage;
- It is capable of providing a net increased capacity of 5,000 and
- It minimizes the need for compulsory land acquisition.

5) **LOW EMISSIONS IN A DECLINING FOSSIL FUEL FUTURE:** An electrified rail system provides flexibility to source operating power from alternative energy sources. In 2001, the Canadian C-Train light rail line is said to claim all of its' electricity from emissions-free wind power generation. *"The trains are powered from the same power grid as before; however, an equivalent amount of electricity is produced at the southern wind farms and "dedicated to the C-Train"* ([Source Wikipedia](#)).

6) **HEAVY RAIL CONSIDERATIONS:** A future heavy rail extension from Bondi to Randwick and Maroubra Junctions may be part of a future light/ heavy rail network, but is regarded as premature at the moment, given the lack of community acceptance for residential dwelling increases proposed under the State Government's concurrently running UAP consultation process.

RBG considers that suggestions by some commentators that the CSELR should actually be replaced by a heavy rail system as being un-realistic given the cost increases associated with tunneling requirements and land acquisition issues of the latter. It is recalled that there was a significant resident backlash against vibration and noise from the East Distributor tunneling constructions.

5 **TRAVEL TIMES.** The advertised travelling time of 34 minutes for a CSELR trip from Kingsford or Randwick to Circular Quay seems excessively conservative when compared to bus travel times.

The Randwick City Council "[Randwick Light Rail Pre-feasibility Study](#)" of 26th September 2011 favorably compared calculated light rail times to bus times as being better for hypothetical lines from the LGA to Martin Place or Central.

| Journey | Travel time (minutes) | |
|--------------------------------------|-----------------------|--------------|
| | Bus | Light Rail |
| | (AM time tabled) | (calculated) |
| Kingsford Nine Ways to Martin place. | 28:00 | 25:01 |
| High Cross to Martin Place | 29:00 | 27:14 |
| UNSW to Central | 16:00 to 17:00 | 14:52 |

(Table derived from page 28, Randwick City Council "Randwick Light Rail Pre-feasibility Study")

In addition, the travel times have not factored in the sometimes significant waiting times for buses, which are inherently prone to bunching up, so that many buses arrive at the same time after long waits.

- 6 ANZAC PARADE BUS MOVEMENTS:** It is noted that what is effectively a hybrid bus/light rail system is proposed along the Anzac Parade section of the identified route. Consideration should be given to adjusting the bus component to maximize opportunities for localized trips within the CSELR routes such as to and from Kensington and Kingsford utilizing frequent bus stops set independently of light rail stops.
- 7 SOUTH EAST PRIORITY BUS SERVICES:** Existing priority bus services moving travelers from areas outside the catchment of the two currently proposed south east interchanges should be retained.
- 8 SUGGESTED ROUTE ADJUSTMENTS:** RBG supports the following amendments to the exhibited route layout:
 - Realignment of the Alison Road track layout to avoid stated tree losses;
 - A pedestrian and bike underpass under Anzac Parade at Moore Park;
 - Moving the Wansey Road section west onto the race course land;
 - Moving the High Cross Park interchange to High Street;
 - Moving the Kingsford interchange further south down Anzac Parade possibly as far as Maroubra Junction; and
 - Moving the proposed stabling yards to the eastern side of the race course.
- 9 BIKE FACILITIES INTEGRATION OPPORTUNITIES:** RBG has long supported a dedicated off road bike path along the Anzac Parade median strip and urges that the CSELR design accommodate one as much as feasibly possible. Usable bike/light rail interchanges are also encouraged.
- 10 KEEPING CURRENT BIKE PATHS OPEN:** The current Alison Road bike path could be kept open during the construction phase by temporarily moving it further to the north of its present alignment.
- 11 PARKING:** RBG generally supports a demand management solution to satisfy parking pressure rather than a supply management approach and thus rejects proposals for large new car parks in Kensington to compensate for Anzac Parade parking losses.

Not with-standing the above stated principle, it is considered appropriate in this case that the parking losses identified in the EIS should be reinstated during off peak travel times. This would reflect the present situation in which normally available parking along Anzac Parade between Alison Road and Nine Ways is generally dedicated to buses between 6 am–10 am and 3 pm–7 pm.

If the above is not possible, a Government subsidized Randwick City Council program providing compensating angle parking in adjacent streets should also be considered.

Electronic monitoring built into any new provided parking could also be considered. This might enable drivers to find empty car spaces servicing Kensington businesses when combined with a smart phone app maintained by the CSELR operators.

12 TREE RETENTION: The stated tree loss of 760 of which some 400 will be in Randwick, Kensington and Kingsford (many classified as significant by Randwick Council) seems excessive and could surely be reduced by thought out redesigns of the current proposal including root protection measures. It is estimated that some 155 trees in the Randwick Council area could be saved by re-routing the Wansey Road lines down west through the race course land and moving the proposed High Cross Park interchange west into High Street. More could be saved by a reconfiguration of the Alison Road lines to protect the roots of the large figs on the adjacent racecourse land on the southern side of the road.

13 CSELR CARRYING CAPACITY: The present passenger numbers carried by buses along Anzac Parade are around 10,000 per hour at peak (source [Randwick Pre-feasibility Light Rail Study 2011](#)). The CSELR as proposed appears to be a hybrid public transport system along Anzac Parade based on 9,000 passengers being carried by light rail and 6,000 being carried by buses thus providing a reasonable net increased capacity of 5,000.

14 CARRYING CAPACITY COMPARED TO OTHER MODES: The proposed 45 metre long CSELR vehicles will apparently have a floor area of 119.7m² (assuming a width of 3.1m as proposed for the Inner West light rail cars) giving a passenger per m² ratio of 2.51 for the exhibited maximum capacity of 300 passengers. This is superior to the carrying capacity ratios for:

- articulated buses of 2.06 pass/m² for a capacity of 115 passengers (calculated from NSW State Transit Bus Infrastructure Guidelines);

- standard buses of 1.86 pass/m² for a capacity of 72 (calculated from NSW State Transit Bus Infrastructure Guidelines);
- a full car of 0.57 pass/m² for a capacity of 5 (based on a Camray Altise dimensions); and
- a normal car of 0.14 pass/m² for a capacity of 1.2 (based on a Camray Altise dimensions)

15 RELATIONSHIP OF FREQUENCY TO CAPACITY: Provision should be retained in stop designs for easy future upgrades catering to multiple car trains allowing for less frequent schedules or greater future passenger capacity if required.

Single CESLR vehicles at their full capacity of 300 passengers would have to pass along Anzac Parade every 2 minutes at peak time to move the targeted 9,000 passengers. This is achievable but could be reduced to one train every four minutes if two CSELN cars were hooked up together.

Calgary's (i.e. in Canada) various C Train light rail cars are comparable to the proposed CSELN passenger capacity of 300 per vehicle with figures varying between 236 to 265. (Source Calgary Transit C-train [LRV Technical Information](#)). The C Train has a similar potential to move the CSELN target of 9,000 passengers per hour by using hook ups of three cars arriving every 5 minutes at peak times. (Derived from data at [Calgary: Public Transportation trip advisor web site](#)).

16 POTENTIAL INCREASED CAR CONGESTION FROM WESTCONNEX. RGB notes with concern that the proposed WestConnex motorway may cause increased traffic movements in Randwick via improvements to the M5 East thus undermining carrying capacity gains from the CSELN.