

Assessing the Impact of Metro West

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I'm going to focus on the proposed station locations.

The 6 westerly stations; Westmead, Parramatta, Olympic Park, North Strathfield, Burwood North and Five Dock, are well considered to meet the travel needs of a growing Sydney.

It is difficult to consider how the most easterly station in the EIS, The Bays, will interact with the surrounding neighbourhoods, as no solid plans have been released by the State Government as to how The Bays Precinct will evolve. The area is without doubt a planning challenge, given the competing interests of existing residents, demands for new inner city harbourside housing, existing industrial uses, a proposed cruise ship terminal, the heritage value of White Bay power station and of course the fact that the area is of enormous transport importance, being the site of what will be Sydney's largest motorway interchange.

For that reason I'll leave The Bays station and hope that the eventual urban plan for the precinct is sympathetic to the surrounding established neighbourhoods and facilitates good active and public transport connections through the area.

It is good to see the plan as presented in the EIS removes the significant detour to Rydalmere station. The loss of coverage to Western Sydney University and the new light rail station at Rydalmere isn't a major problem due to the metro-light rail interchange available at Parramatta.

Within the scope of the EIS I believe that for Metro West, as with existing Sydney Metro projects, lengthy station spacing is leading to missed opportunities for improving public transport connectivity more broadly.

This comes about because of the two competing demands on any metro proposal: travel time and network coverage.

The twin costs of more stations

The argument against additional stations is two-fold, and will be familiar to anyone involved in the push to have [a station at Alexandria](#) included in the City and Southwest Metro.

Dollars

The Sydney Morning Herald reported that the cost of each new station on the City and Southwest Metro [was between \\$200m and \\$630m](#), not including excavation works. Ouch! Additional stations on the Metro West corridor would likely fall at the lower end, or even below, this range, as those high prices came about from building under high rise in the CBD and North Sydney. None the less, additional metro stations are no doubt expensive; even if they're a drop in the bucket of a project with a total cost leaning towards between \$20 and \$25 billion.

Travel time

The big claim of Metro West is an "around" 20 minute journey between the Sydney CBD and Parramatta. That is significantly quicker than the 30 (timetabled) minutes it takes between Parramatta and Town Hall on an express train today. With a tentative length of 22km between the as yet unfinalised Sydney CBD station and Parramatta, trains would need to run at an average speed (including stops) of well over 60km/h to meet the time target.

With a maximum operating speed of 100km/h, there's a limit to the number of times the metro train can stop along the way and still meet the time goal. The original proposal included an optional station at Rydalmere which involved a significant deviation of the alignment. This has subsequently been removed and it is likely that because of this there is sufficient slack to allow an additional stop or two whilst still keeping the service timely.

One way to avoid this conundrum altogether would be by building quad tunnels with 4 tracks for an express and all stations stopping pattern. Much more expensive to build but 'future proofed' against surging demand and able to simultaneously meet both coverage and travel time objectives. This additional capacity would become particularly handy once the Metro West is extended towards Western Sydney Airport.

I assume such a plan is well beyond the budget of the NSW State Government, especially given [recent cost blowouts](#) on the Sydney Light Rail and City and Southwest Metro vastly overshadowed the \$1 billion shaved off the Northwest Metro.

A last resort option before we dig the bloody thing and are stuck with what we've got is to spend a bit extra excavating station boxes at key sites along the way, [leaving the option open for additional stations in the future](#).

At this point it seems like we're stuck with twin tracks and one line that must meet both travel time and coverage objectives.

Light Rail Integration

The project's stated goal of integrating with existing transport networks is not being fulfilled due to a missing interchanging with the existing L1 Inner West Light Rail line between Dulwich Hill and Central. Rozelle Bay Light Rail Station is only 700m from The Bays station. Close, but far too far for a convenient interchange.

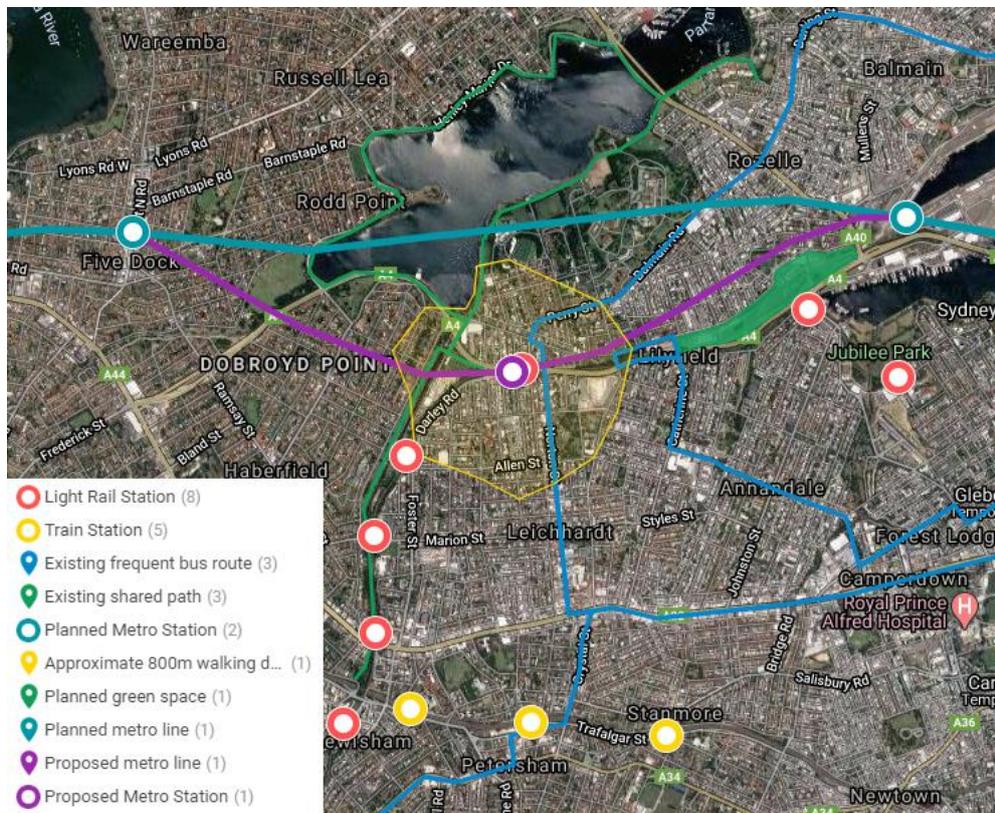
The L1 line is currently highly congested in peak hours (well, not right now, but usually) and does not adequately perform as a useful service to access the Central Station area from much of its route, because of long travel times associated with the winding route alignment through Pyrmont. The lack of a connection to the CBD also limits its usefulness. The only available connection to a faster service would be at Lewisham, but it's a decent 500m walk between Lewisham West Light Rail and Lewisham Station.

A light rail-metro interchange at Pyrmont would go some way to changing this, however it would likely increase congestion on the already crowded Glebe stretch of the line and further induce inbound travel demand by routing passengers bound for Parramatta through Pyrmont.

Metro for Leichhardt North

A better alternative would be a new metro station at Leichhardt North to interchange with the light rail. The current Dan Murphy's site is immediately adjacent to the existing light rail station and would be perfect for a new metro station, nestled in a medium density mixed use neighbourhood that lacks good, direct public transport access to Sydney CBD or Western Sydney. It would dramatically increase the utility of the Inner West Light Rail line by bringing the areas of significant high density development in Lewisham and Dulwich Hill into the Parramatta and CBD 30 minute cities. It would relieve congestion on the light rail line and increase capacity due to eastbound passengers disembarking at Leichhardt North, freeing up room for those boarding at Lilyfield, Rozelle Bay, Jubilee Park and Glebe.

In terms of increasing catchment area for the metro, no location is better situated than Leichhardt North thanks to the light rail connection to a variety of mixed use, medium and high density neighbourhoods that are otherwise generally poorly served by fast transport options to Sydney's major employment centres.



Major Bus Connections

As well as the light rail connection, Leichhardt North is an important existing bus node. The 440, M10 and 445 all operate past the station connecting with Balmain, Rozelle, Leichhardt and Petersham. Additionally, a small alteration would allow the 470 to easily connect Annandale and Forest Lodge to the new station.

An Active Transport Junction

The station is also directly between two important recreational spaces and associated cycling corridors. The enormously popular Bay Run is 400m from the Leichhardt North site, compared to 1.3km from Five Dock, the closest proposed station. This would make the station accessible by bike and on foot, along completely off-road shared paths from as far afield as Birkenhead Point and Balmain High School.

To the south, the station would provide a direct, completely off-road, metro to cycling connection to Haberfield and Lewisham down the [Inner West Greenway](#). If existing council plans to partner with the State Government come to fruition, the path would be extended south all the way to the Cooks River.

To the East, the surface works associated with the Westconnex Rozelle Interchange will allow the creation of an entirely off-road cycling and walking connection through the new parklands alongside City West Link towards Rozelle Bay.

The perfect place for a new station

A metro station at this location has the potential to dramatically alter accessibility across much of the Inner West region. Leichhardt North is uniquely situated at the junction of a light rail line, 4 high frequency bus routes and an extensive active transport network connecting schools, universities, employment and recreation hubs and countless medium density neighbourhoods.

As per the Metro West EIS, a station at Leichhardt North is 800m south of the current proposed alignment. It is 2.4km as the crow flies from both Five Dock and The Bays, the exact midpoint of the two stations. The straight-line distance between Five Dock and The Bays is 4.6km, compared to 4.8km via Leichhardt North. Adding a new station here would require a relatively minor change to the total length of the route.

Metro for Silverwater

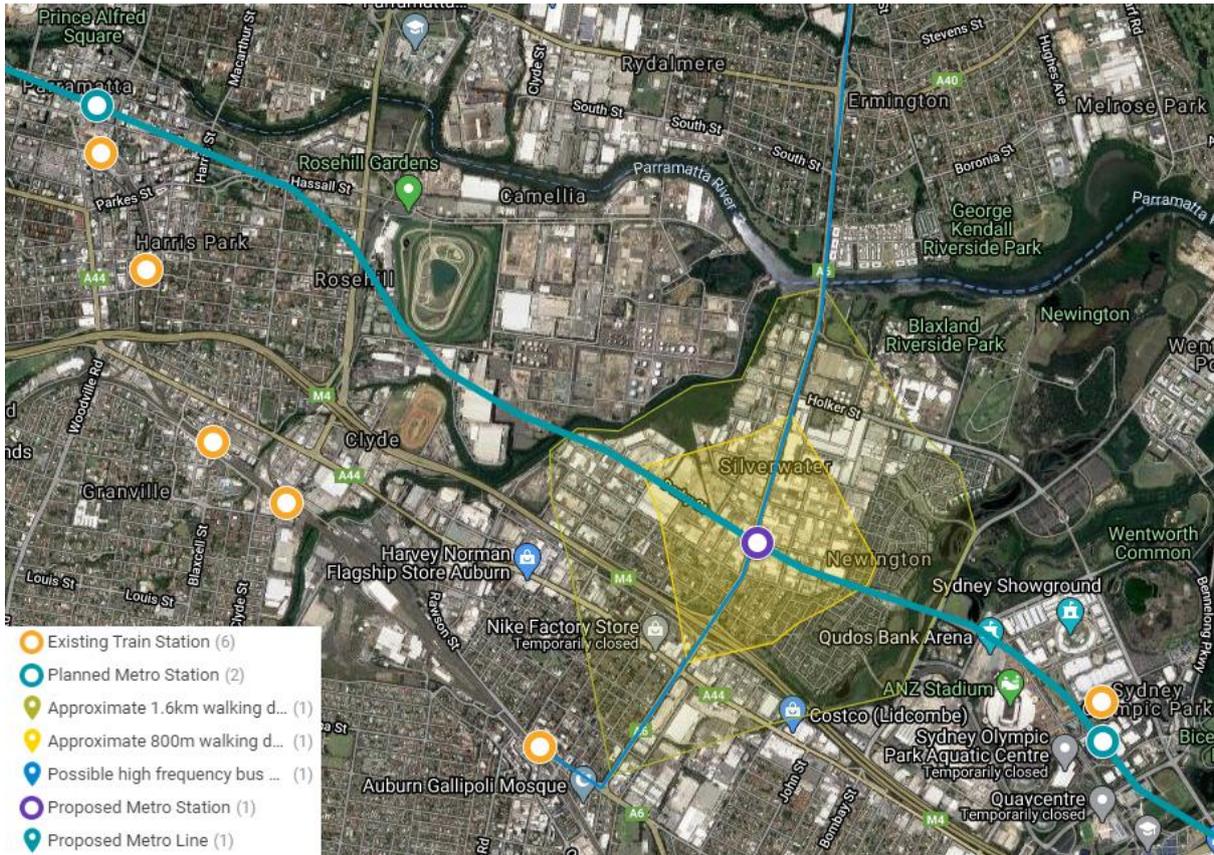
The other noteworthy area that is served by the metro alignment but not by a station is in Silverwater.

Silverwater is a primarily light industrial suburb located between Auburn and the Parramatta River, just west of Olympic Park. It's a big centre of employment, being prime light industrial land with great road access to much of Sydney.

Unfortunately, it has terrible public transport. None of the businesses that make up the industrial core of the neighbourhood are within 1.6km (a 20 minute walk) of the nearest train stations at Auburn or Olympic Park. The only decent bus service in the suburb is the 30 minute frequency 525 that skirts the northern end of the suburb connecting the adjacent suburb of Newington and the Silverwater Jail to Olympic Park, Strathfield and Parramatta. The two bus routes that pass through the core of the suburb, the 540 and 544, are definitely [buses we wouldn't chose to catch](#), winding through backstreets and running infrequently. The 544 runs hourly with a few additional peak services and the 540 runs just 11 times a day. The [chosen alignment for the proposed Stage 2 of the Parramatta Light Rail](#) connecting to Olympic Park goes nowhere near the suburb.

A station at Silverwater would require no alteration to the metro alignment as planned, in fact there's a ventilation and emergency exit point included in the EIS on the corner of Silverwater Road and Derby Street that could be expanded to include a new station.

A station at Silverwater would meet the objectives of the Metro West and would significantly enhance transport options in a completely car dependant part of Sydney.



Jobs and Growth

Silverwater is a major employment hub. In 2016-17 the ABS recorded over 16,000 jobs in the Homebush-Silverwater Statistical Area. I would estimate that in excess of half of these are based in Silverwater. This employment is generated by the large number of small to medium light industrial businesses as well as the jail in the north of the suburb.

The suburb of Newington would fall on the edge of the Silverwater Metro Station catchment, providing a fast connection to a medium density neighbourhood that lacks adequate public transport.

A station at Silverwater would allow the development of a frequent bus service along Silverwater Road, connecting Auburn Station, Silverwater Station, Ermington Light Rail (proposed), Carlingford Light Rail (under construction) and beyond.

The industrial neighbourhoods of Sydney often have appalling public transport options. This belies their importance as places of employment for many people, particularly those that may lack access to private transport.

Silverwater is extremely traffic choked in peak hour, even by Sydney standards, and despite its central location, is all but inaccessible by public transport. The proposed location of the new station is 1.8km as the crow flies from the closest train station at Auburn, 2.3km from the train and planned metro stations at Olympic Park and 4.7km from the next metro station to the west at Parramatta.

Striking the right balance

Existing Sydney Metro projects have gone ahead with extremely lengthy gaps between adjacent stations. This reflects the uncertainty over whether the Metro is being built as an express service,

quickly linking far flung suburbs with business districts and interchange stations, or a local service, connecting neighbourhoods. It is clear as the Metro experiment manifests, that the project seeks to be something between the two.

As our state government pushes harder and harder to raise the profile of Western Sydney, a train that rapidly links our two CBDs, the state's largest health precinct at Westmead, our most important events hub at Homebush and the state's soon to be second international airport at Badgerys Creek, is obviously important. But it's important to provide people and businesses along the way with access to all these facilities, too.

Nods to this balance have been made with the number of confirmed stations growing from just five when it was announced in 2016 (Parramatta, Olympic Park, an unspecified Northern line connection, The Bays Precinct and Sydney CBD) to the current 8 confirmed stations, with a possible bonus 9th at Pyrmont.

However, it is my belief that the current proposal doesn't quite get the balance right. Hopefully the lost opportunities of the 1st two phases of the Sydney Metro can be avoided this time around.