

**Submission  
No 60**

**INQUIRY INTO CURRENT AND FUTURE PUBLIC  
TRANSPORT NEEDS IN WESTERN SYDNEY**

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# Inquiry into the current and future public transport needs in Western Sydney – submission by Peter Egan

## PORTFOLIO COMMITTEE NO. 6 – TRANSPORT AND THE ARTS

This inquiry was self-referred on 7 August 2023. Submissions close 18 Sept 2023

### Terms of Reference 1 - current and future public transport needs for Western Sydney

This submission particularly argues that, as an affordability measure, we should restructure our metropolitan rail network to improve socio-economic opportunities in Greater Sydney and NSW as a whole.

Figure 1 demonstrates a simple geographic analysis of the Sydney metropolitan area with a view to improving rail coverage of the metropolitan area and the travel opportunities in Western Sydney and elsewhere.

#### Ref. (e) Affordability

Affordability is a function of time and cost to access work, goods and services, the space we desire and site issues like local climate. Germany is a country of small cities with good transport links between them. NSW could and should be a state with a string of coastal cities and mountain cities inland. Sydney has around thirty regional centres which provide virtually all of our daily and weekly needs – regional cities with this service level will be successful.

Services that are unique to the Sydney CBD, such as provided by the Sydney Opera House, are used by a small portion of people and probably no more than once a month. Private vehicle access is expensive and time consuming. An hour and a half each way on a train for a special event is effortless. Waratah and Intercity Trains could travel 200 km in that time if we built rail corridors for their speed. As discussed below, NSW is losing the battle to attract Australians – we need better transport in Sydney and to the regions of NSW, particularly passenger rail.

The speed capability of the Waratah and Intercity trains – 130 km/h to 160 km/h means this vehicle type is well suited to journeys across sprawling metropolitan areas and to nearby cities. The Metro trains have more acceleration, but are limited to 80 km/h. They are more suitable to frequent stops – local services.

The Coalition's 3, then 6, cities policy was driven by one or more MPs who see advantages to their electorate from direct rail local services to both the Sydney and Parramatta CBDs. The Coalition intent being all 6 cities having their own radial rail services. All too often government policy goes unchallenged to the detriment of us all. No electorate can be well off if the city of which it is part does not perform well as a whole.

Government reports of transport options considered are cursory – they read like they were written to confirm choices already made. The public service is a place of firm opinions on what we should build. It performs poorly at presenting choices to government and community.

In the absence of government options, in **separate appendices**, I make suggestions for road and rail corridor improvements for better transport services. Some of these are years old, but cities are built over centuries, so infrastructure proposals date slowly. The point of them is to show alternatives to government plans. We should consider making new road tunnels Battery and Fuel Cell electric vehicles only to eliminate vehicle exhaust from stacks and encourage EV adoption.

While we need new ideas, departing from part-implemented plans can result great value loss. The former Coalition government departed from some corridor plans that we have been building for more than 70 years. The result will be less service at a cost of tens of billions of dollars and the loss of trillions of economic opportunity in the century or more the infrastructure will be used. Examples:

1. The North Western Motorway (NWM) from the Sydney CBD to the M1 at Hornsby via Rozelle. A new section will open to Rozelle shortly bringing it to about 70% complete. While initial proposals for the road had major environmental issues, tunnels are a major mitigation – particularly when made EV only. In the WHT EIS TfNSW gave diesel truck pollution (from port trucks in the M5 tunnels??) for reducing the maximum grade for Sydney other new main roads from 6% to 4% while raising the maximum grade for commuter train lines from 3.33% to 4.4%. NSW is the only place in the world where conventional railways can have a steeper grade than main roads. The decision means the Gladesville Bridge (6%) cannot be part of new main roads. The WHT via Neutral Bay was devised with a route that is 5.5 km longer than the NWM, but more direct to the Northern Beaches for about 5% of motorists. The Lane Cove Tunnel was built with just four through lanes on the basis the NWM would be completed in the designated corridor. If the WHT is continued, 18 cross-harbour traffic lanes reduce to just 4 lanes at the LCT. The WHT will require the doubling of the LCT, a cost not included in its budget. If the WHT is stopped now and the NWM continued via the Gladesville Bridge, Beaches Link can be revised to a cheaper project that uses much of the excavation works already done at Cammeray (Figures 3 and 4). Stopping the WHT now has major cost saving to government and will result in better traffic flows. See Appendix 3.

2. Sydney Metro to the Bankstown Line was a poor decision, one that can still be reversed. The Bankstown Line and Inner West Line make a good pair for local services. Connecting Sydney Metro to the Airport Line between Waterloo and Green Square Stations (the tracks are just 150 metres apart – see Figures 2) remains a better option even if the Metro takeover the Bankstown Line is completed – it can be reversed at a later stage for little cost – the Bankstown Line needed most of the infrastructure upgrades it is getting. If a change is made to connect Sydney Metro to the Airport Line, thus creating an orbital railway that also serves Western Sydney Airport, the Bankstown Line and Illawarra Line can share an extra ten Waratah train services an hour each way.

### **A measure of government land use and transport performance in addressing affordability**

NSW population share tells the story of what good and poor infrastructure policy delivers. We can only have the economy enabled by well-planned access (transport) services. NSW grew its share of the Australian Population from 33% in 1856 to ~40% in 1940, which then declined to 31.3% in 2023. NSW consistently grew faster than Victoria after the Gold Rush to surpass it in population in the 1890s and go on to greatly exceed it. Victoria's population was about 27% of Australia's in 1940, and is 25.5% now – barely a decline. Around the world, the larger cities and states in a country have tended to grow their population share due to better services. If not the dominant state in 1940, the decline of NSW population share would have been far greater. 31.3% of Australia's population in 2023 is flattering of the post-war transport policies of all sides of politics.

The NSW population share rise and fall was no accident. NSW success to 1940 was due to superior policy in funding and deploying transport infrastructure and services from the start of representative government in 1856 to the Great Depression and WW2. The switch from the Public Works Committee effectively planning major infrastructure, to planning by public servants left MPs out of the loop and out of the information flow. Prior to the County of Cumberland Plan, the community made representations to the PW Committee about the economic opportunities of regions, and the public service informed the Committee on best corridors to realise the opportunities and costs. Out of the transport planning loop, MPs have turned their attention to other matters.

Draft government transport network and land use plans should be subject to yearly public review by parliamentary committees even if government plans are not changed.

### **Broadening our thinking about land use and transport**

Public transport in NSW is delivered by a number of different vehicle types on road, rail, water and by air. Some public transport is directly provided by the private sector – air travel in particular. However, we could call the air ambulance a public sector provided public transport service. My point is to urge the Committee and community to think broadly about services currently offered and should be offered in the future.

Transport corridors are our way to link 'lots' of land controlled by people or entities for economic, social and environmental purposes. Transport corridors, which includes streets, use about one-third of urban land. Therefore, efficient corridors and services are essential if we are not to 'waste' land. The state manages our main roads and railways which are equivalent in many ways but have different strengths and weaknesses.

We should also think more broadly about funding. Conservatives around the world are fond of a 'user-pays' mantra. This means most beneficiaries of infrastructure and services avoid paying for them. The beneficiaries of a person going to work are the person, the employer and businesses where the person spends their income. Economies are wealthier when all beneficiaries pay for public infrastructure and services.

While we use government bond sales to finance infrastructure, general economic taxes should fund public infrastructure. We have also found significant economic benefit in general taxes part-funding public transport services for the mobility it offers the young to travel for education and work purposes and from the benefits flowing from public transport being a higher density form of transport – our cities sprawl less. The former **Coalition government** recognised the taxes that flow from development around railway stations will fund a lot of infrastructure, and **sought to build new railway lines for new CBDs**, as we no longer trust government to increase density of existing CBDs in a sensible fashion.

The intent with road tolls was user pays 100%. The tolls were turned into an income stream unrelated to our economic needs and sold at a huge discount when measured against the market values of government bonds with those income streams. The tolls are eating our economy. Toll income must go to government to allow it to vary tolls for social and economic purposes. Essentially, we now have the government paying tolls to Transurban on behalf of a large number of NSW residents.

**Increasing density in existing CBDs requires a suit of policies that** remove through traffic from CBD cores, street infrastructure built around people rather than traffic and vehicles, lowering railways where they split CBDs in half, property zoning rules that enable poor streetscape, such as longitudinal stairs in footpaths to be eliminated by changes to lot and footpath levels. Artarmon is just one centre where significant benefits would flow from lowering the railway and changes to lot and footpath levels. Many CBDs in Sydney are cut in half by railways.

## **Transport network structures**

Transport for NSW research shows people in metropolitan areas travel in every direction. There are essentially two ways to support travel in every direction:

- The first – radial transport corridors to a centre and then to a destination on another radial.
- The second – a grid structure. Adopted for our main roads post WW2, but not yet for railways.

Generally, we use both structures. Radial structures tend to congest at the centre, and have longer service times, but the centre often has better facilities for public transport interchange. Our bus network radiates from multiple points.

Until WW2 Sydney's main roads and railways were essentially radial. After the war, many tangential roads 'A' roads were built to give the network a grid structure. Roads are lower density than rail when transporting people and goods.

Rail cannot be an end-to-end service for goods transport in most circumstances, thus we generally rely on road transport for shorter freight journeys.

Our railways effectively radiate from the city of Sydney which is now displaced from the centre of the metropolitan area as the city has grown. Western Sydney must make greater use of private vehicles as our radial rail structure is essentially east-west by the time it reaches Western Sydney – railways in the west are poor in north-south travel options. The wealth and jobs in the north are less accessible to those living in the south.

We have been very reluctant to use rail grids and offer public transport services that take advantage of grid structures to reduce journey times.

Radial structures were favoured by the Coalition for Sydney's future. Their plan envisaged railways radiating out from each of its six Greater Sydney cities. The policy would gradually divide Greater Sydney on education and job opportunities and thus opportunities to create personal wealth over time. It was an 'us and them' policy and is currently the policy of the new Labor government.

### **Ref (f) the role of public transport and future transport technologies to reduce car dependency in Western Sydney, including barriers to improving public transport services**

Productivity improvements have generally led to better quality jobs for humans. While artificial intelligence technologies will assist productivity improvements, the point of our economic system is a flexible means of creating desired work and income for humans. Government provides assistance when people lose employment in the form of income, education and job search. We like working with humans and see machines as tools. This will never change.

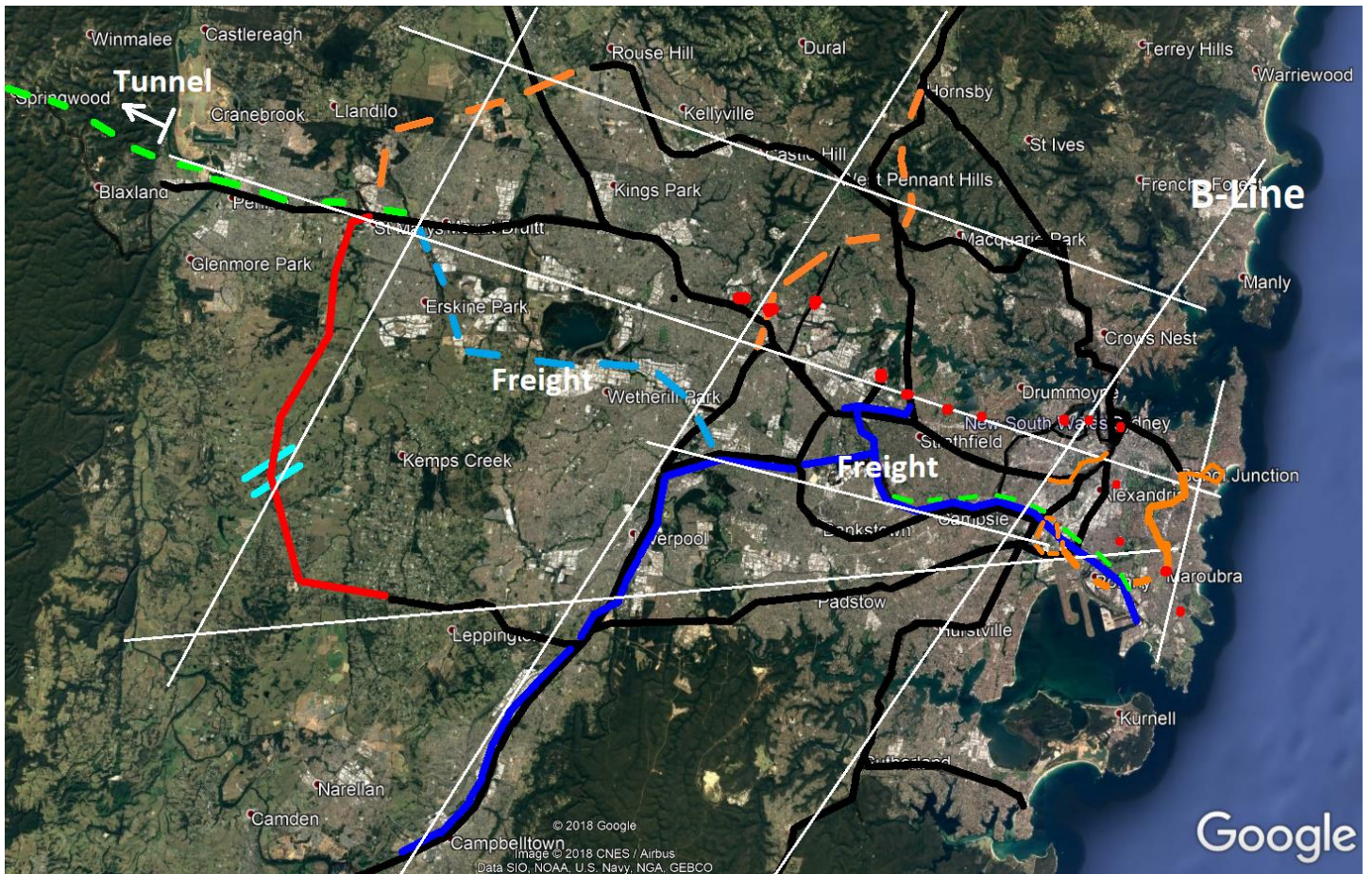
Bus public transport has unsociable demand hours from the perspective of drivers. Bus public transport service providers cannot attract enough drivers and services are missed.

As has been demonstrated by Sydney Metro, rail public transport can be 'driven' from a control room.

A number of companies in China and the US are demonstrating 'driving' technologies that work well on set routes with assistance from control centres. 'Driverless' technologies have great promise to improve service and lower the cost of service, improving the productivity of services.

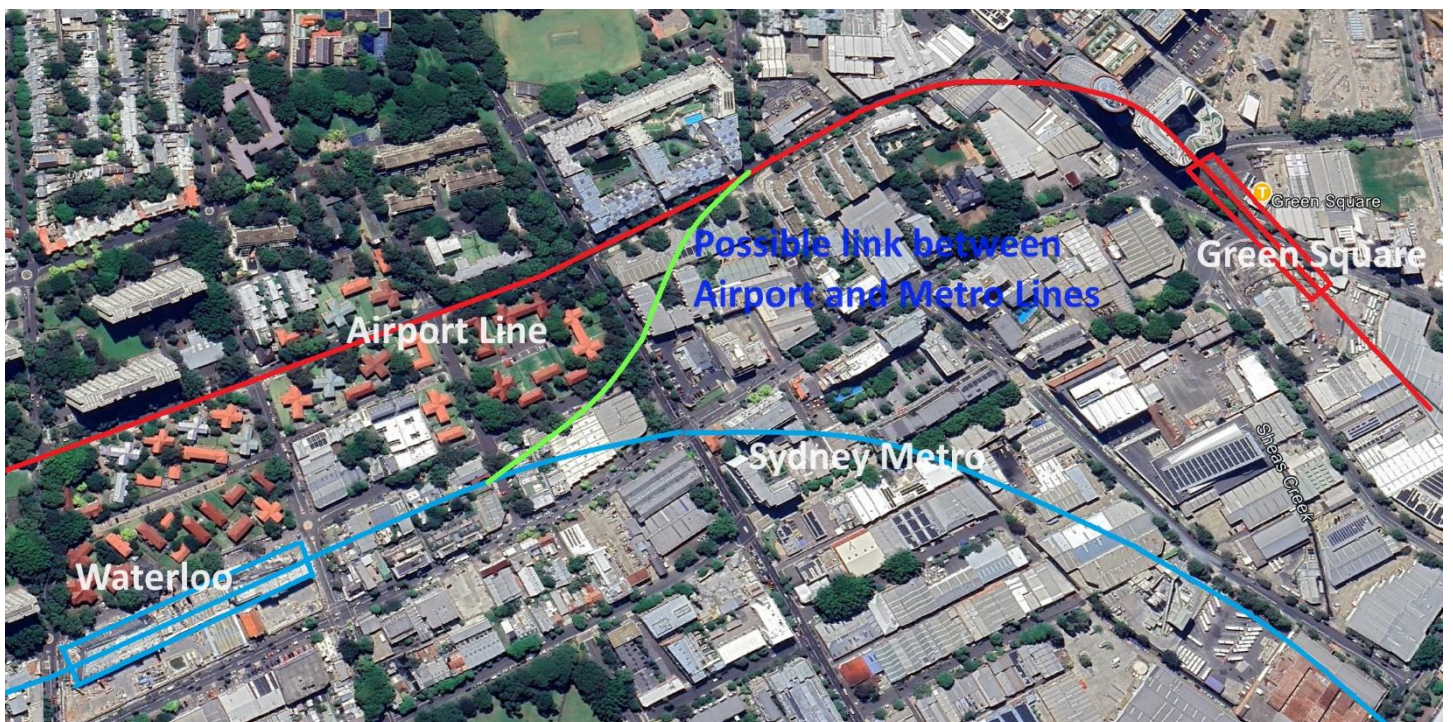
Bus public transport is more space efficient than personal transport. But bus public transport will be challenged by competition from cheap battery electric 'K-car' sized local travel vehicles. The huge sales of the Wuling Mini EV in China show the potential for local travel vehicles to compete with public transport.

It is essential bus public transport has its costs reduced to ensure services and retains market share in competition with lower road density personal transport.



- Black lines – current passenger network
- Light blue line – Western Freight Line
- Red line – Government's WSA connections to Western and Leppington Lines
- Red dots – Government locations for Metro West stations
- Broken orange lines north-south – St Marys-Rouse Hill, Merrylands-Parramatta-Epping-Hornsby
- Broken orange lines east west – Bondi Junction-Bondi Beach, Sydenham-Airport-Botany-Maroubra
- Solid orange line – Eastern Suburbs Line extension due to weak north-south links
- Green lines – Passenger & freight rail lines under Blue Mtns – 46 km tunnels Emu Heights-Hartley Vale
- Dark blue line – current freight lines
- Aqua lines – Western Sydney Airport runways
- Proposed freight rail tunnel – Botany-Sydenham-Enfield yard – 14 km

**Drawing grids is about ensuring geographic coverage and connections between regions**  
**Figure 1 – Applying a grid to the metropolitan rail network to inform network growth**



**Figure 2: At grade 350-metre connection between Sydney Metro and Airport Lines diverting Metro for Airport services**

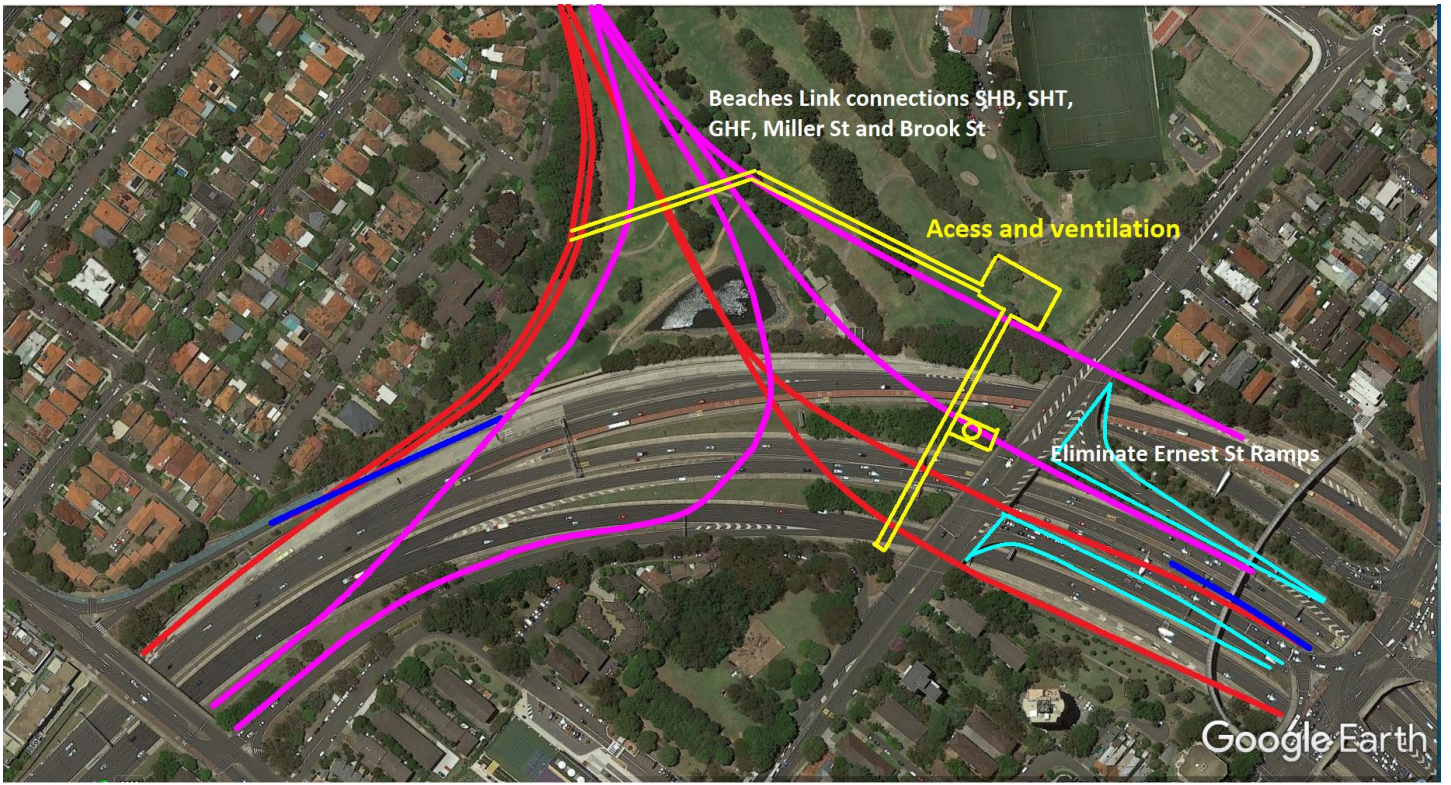


Figure 3: If the WHT is cancelled, the works at Cammeray can be repurposed as shown above for a Beaches Link with a ~6% main tunnel grade that is below the surface of the golf course.



This route save billions as it avoids the link to Artarmon.

Figure 4: Beaches Link revised route with ~6% main tunnel grade and ~350-metre radius curves

## **Appendices**

1. Increasing the capacity of the Greater Sydney region heavy rail Network
2. Improvements to Metro West in the Sydney CBD for a better metropolitan network structure
3. Alternative to the Western Harbour Tunnel – completing the North Western Motorway from Rozelle to the M2 at North Ryde
4. A6 corridor, a better location for additional cross-harbour road capacity
5. Improvements to Sydney Orbital Motorway's worst planned section – Pacific Hwy to Harbour

## TERMS OF REFERENCE

1. That Portfolio Committee No. 6 – Transport and the Arts inquire into and report on the current and future public transport needs for Western Sydney, and in particular:

- (a) the availability and accessibility of public transport services across Western Sydney, the adequacy of connectivity between public transport hubs and commercial hubs and any gaps in services
- (b) the current and anticipated levels of demand for public transport services and the public transport requirements to meet this demand
- (c) the changing nature of public transport needs due to shifting demographics, new suburbs, planned infrastructure and increased density
- (d) the social, economic and planning impacts of vehicle dependency and poorly integrated public transport
- (e) the affordability compared with other areas of Greater Sydney and New South Wales and relative to means
- (f) the role of public transport and future transport technologies to reduce car dependency in Western Sydney, including barriers to improving public transport services
- (g) the role of the public and private sector, including local government and the use of innovative funding models, such as transit oriented development and value capture mechanisms, in public transport provision
- (h) the staffing and future workforce planning, taking into account predicted service demand based on predicted population growth in Western Sydney
- (i) any other related matters.

2. That the committee report by 29 March 2024.

The terms of reference for the inquiry were self-referred by the committee on 7 August 2023.

### **Committee membership**

Ms Cate Faehrmann MLC The Greens Chair

Hon Sam Farraway MLC The Nationals Deputy Chair

Hon Mark Banasiak MLC Shooters, Fishers and Farmers Party

Hon Anthony D'Adam MLC Australian Labor Party

Hon Dr Sarah Kaine MLC Australian Labor Party

Hon Bob Nanva MLC Australian Labor Party

Hon Natalie Ward MLC Liberal Party