



Department of Transport

Joondalup



PUBLIC TRANSPORT FOR PERTH IN

2031

MAPPING OUT THE FUTURE FOR PERTH'S PUBLIC TRANSPORT NETWORK.

SUMMARY

KEY FINDINGS

The current network will not be able to cope with the projected increase in public transport use and growth of the city.

A significant change in the way public transport operates will be needed if it is to play its crucial role in reducing congestion, improving accessibility and reducing the consumption of fossil fuels.

Over the next 21 years, much of the investment in public transport infrastructure and system improvements is needed within 15km of the Perth central area.

Importance of public transport for Perth

Good cities need effective public transport. It plays a vital role in creating competitive economies, and liveable, inclusive communities. It also has a role in reducing our reliance on fossil fuels and our carbon footprint.

Public transport enables people to access families and friends, jobs, recreation, education, health care and the many activities that contribute to individual and community wellbeing. It provides independence for people who cannot or do not drive.

Over the past ten years public transport usage in Perth has increased by 67%, three times the rate of population growth over the same period.

Some 330,000 trips are made by public transport every weekday. Two-thirds of public transport trips are for work and education purposes. These are generally made during the peak period to and from the central city area.

The current network strongly supports the central city area. However, there are major differences in the quality of services, with limited quality mass transit services for the central northern sector of the Perth metropolitan area and between major centres outside of the central area.

Developing a mass transit system

For the level and quality of public transport services to continue to improve, there will need to be real improvements in reliability, speed of travel, service frequency, safety and security, and ease of use.

There are limited options to further develop the rail system in a cost effective way. 'Right-of-way' reserves do not exist between many of the strategic centres in the Central Sector (largely within 15km of the CBD) where consolidation and higher intensity of activity is planned. The alternative of constructing tunnels is very expensive and not feasible for extending services to new areas.

Most of the new growth corridors can be served by road-based services, but strategic decisions need to be made to ensure these services have substantial priority over general traffic. Without this priority, the quality and level of service cannot be achieved.

To provide a quality level of service for more people, the future transit system will need to have three integrated types of service – train services, road-based rapid transit services and buses. A road based rapid transit service can be either light rail or bus rapid transit.

Developing the network

The public transport system can be enhanced by increasing capacity on the existing network, expanding the network and developing transformational projects.

The project proposals are grouped into two categories – Stage One or shorter term/ before 2020 and Stage Two or medium term/ before 2031. The proposed combined network to be developed by 2031 is shown in the figure on this page.

Future growth

By 2031, Perth residents will collectively more than double their use of public transport.

Public transport will account for:

- one-in-eight of all motorised trips (currently one-in-fourteen);
- one-in-five motorised trips in the morning peak period (currently one-in-eight);
- over 30% of peak hour distance travelled (currently around 20%); and
- nearly 70% of all trips to the CBD (currently around 47%).



RAPID TRANSIT INFRASTRUCTURE COMBINED STAGE 1 & STAGE 2 PROJECTS

Increasing capacity on the existing network

The capacity and efficiency of the existing network will need to be increased by:

- Purchasing new trains and buses;
- Upgrading major bus interchanges and providing faster bus services to transfer passengers to rail services;
- Building new train stations;
- Providing effective access to the system including adequate park and ride facilities.

Expanding the network

The network will need to be expanded by:

- Providing priority bus lanes along routes that connect major centres and through congested intersections;
- Adding a rail spur to service the Airport and the Hills area;
- Extending the Armadale line to Byford and Mundijong in the longer term; and
- Extending the Northern Suburbs Railway to Yanchep and other transformational projects (detailed below).

These projects are integral to the creation of Perth's long-term public transport network. However, in themselves, they will not be enough to meet the expected demand for public transport.

Transformational projects

A new rapid transit system, with the capacity to move large volumes of people during peak hours, is needed for the central northern suburbs. The current rail network cannot include another line to service these northern suburbs along Alexander Drive and through North Perth, without significant cost and disruption to existing commercial and residential areas.

The projected volumes for this corridor suggest that this should be planned as a light rail route. The significant capacity and fleet needs could be fully harnessed by extending the route through the city to Curtin University and UWA/ QEII, creating a network that supports the spine with contra passenger flows.



Fast tracking the extension of the Northern Suburbs Railway to Yanchep will transform the style of outer urban development. However, this should have a significant involvement and contribution from the Federal Government and major land owners to support the funding of the project and to ensure a commitment to a 'smart growth' sustainable model for greenfields urban development.

These transformational projects ought to be conditional on specific criteria, including:

- A contribution to the capital cost of the projects by the private sector, based on value transfer from increased property value;

- Alignment of support from local authorities to achieve a practical network across local boundaries;
- Minimum development outcomes being secured.

For light rail, project proposals would need to demonstrate how they are consistent with, and can be effectively expanded into, a broader network, would need to ensure a consistent use of technology to maximise operational flexibility and synergies across the network and would need to be subject to detailed master planning and a business case.

The investment required

By 2031, it is estimated the total annual cost to operate and maintain the public transport system will have risen to \$1.2 billion (compared to \$691.2 million in 2009/10).

Over the next 21 years the total cost for fleet expansion is estimated to be \$1.2 billion. The major components of the cost are:

- Additional railcars – \$624 million (156 additional railcars at \$4 million each);
- Additional buses – \$482 million (900 additional standard size buses at \$535,000 each);
- New light rail vehicles – \$131 million (29 light rail vehicles at \$4.5 million each).

Over the next 21 years the estimated cost to construct the infrastructure recommended in the public transport plan is \$2.9 billion.

The major components of the proposed infrastructure expenditure are:

- Rail system expansion – \$1.2 billion;
- Light rail – \$1 billion;
- Bus rapid transit and bus priority infrastructure – \$343 million;
- Additional rail, bus and light rail depot and maintenance facilities – \$180 million;
- Transit interchanges, including park and ride – \$135 million.

Note: All costs and benefits in this plan are expressed in 2010 dollars.

Funding plan

A detailed funding plan and strategy needs to be prepared by the Department of Transport and the Public Transport Authority in consultation with Treasury and Finance for consideration by the Government. The Independent Panel recommends that a number of new funding sources be examined for inclusion in the funding plan and that these be the subject of consultation with key stakeholders.



The opportunities to adopt alternative or additional funding sources will change over time. For that reason, a short term (5 year) funding plan and a longer term funding plan will need to be prepared.

Policy issues

The development of the Public Transport Network Plan has identified a number of important policy issues that are related to either the development and operation of public transport or to the broader urban transport system. These policy issues need to be addressed to ensure that the urban transport system can continue to support a fast growing city with an expanding rapid transit public transport system.

Integrating land use and transit

Western Australia has a suite of policies focussed on the integration of public transport with land use planning. The implementation of *Directions 2031 and Beyond*, through growth management strategies, provides more opportunities to reinforce this integrated approach.



The Activities Centres State Planning Policy also supports this approach, as does the Transit Oriented Development (TOD) Development Control Policy. It is understood that the TOD policy is under review. This should ensure that there is a focus on, and investment in, areas that have genuine development potential and that can have a positive influence on public transport use.

The transformational projects are a further opportunity to achieve strong alignment and integration with land use. Existing planning policies may need to be enhanced to secure minimum development outcomes and contributions to projects from the private sector. The recent changes to the Planning and Development Act to provide for Improvement Schemes provide such a mechanism. A careful focus on application of those schemes is needed.

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