



NorthWellington public transport **STUDY**

Scenarios Report

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Executive Summary

This document identifies credible future public transport scenarios for the northern suburbs and provides background information to enable informed public comment on options being considered.

In November 2005, Wellington City Council and Greater Wellington Regional Council asked people in the northern suburbs about their public transport needs. We've used what you told us to help generate four scenarios that could meet the current and future needs of the area.

We'd like to know what you think about these scenarios.

Scenario One – *Enhanced Rail*

The *Enhanced Rail Scenario* involves improving the existing rail services between Johnsonville and the Railway Station. The existing rail units would be replaced with either new or refurbished units from other parts of the rail network.



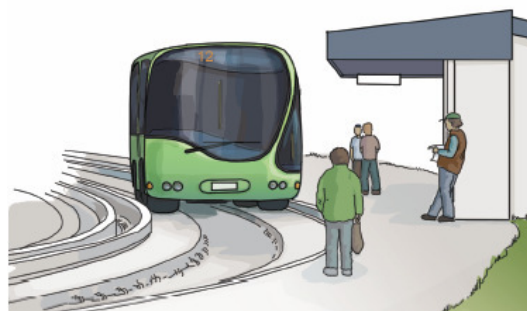
Scenario Two – *Bus with Walking and Cycling*

The *Bus with Walking and Cycling Scenario* involves replacing the current rail services with new buses running on existing streets, with the service extending through the CBD to Courtenay Place. The rail line could be transformed into a walking and cycling track or 'greenway', preserving the rail line as a transport corridor, and promoting more active forms of transport and creating new recreational opportunities. New bus routes operating through Khandallah, Wadestown and down the Ngaio Gorge would be used to replace the rail service.



Scenario Three – *Busway*

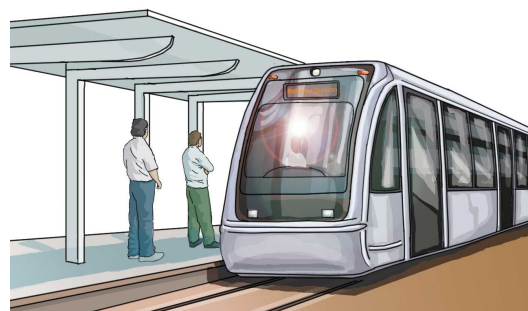
The *Busway Scenario* involves converting the Johnsonville rail line into a guided busway and extending services through the CBD to Courtenay Place. The busway would operate in the peak direction only, with return buses using the road network. It would be one lane wide for most of its length because of the narrow



corridor, steep drops and the narrow tunnels. Buses would be fitted with a guidance system to ensure safe operation. There are a number of ways of operating the busway. One way would be to use it for a mixture of services to replace the existing trains and express services which would be full when they entered the busway and travel without stopping to the Wellington Railway station.

Scenario Four – Light Rail

The *Light Rail Scenario* involves running new light rail vehicles on an extended Johnsonville line through the CBD to Courtenay Place. This will require improvements along the Johnsonville line and also require significant work through the CBD.



Other scenarios considered

Other scenarios considered were the extension of heavy rail, monorail and personal rapid transit (small, automated vehicles running along a separate guideway). These scenarios have not been put forward for further consideration, as they appeared to be inappropriate or unaffordable. Some also have shortcomings associated with passenger capacity, visual impacts and coverage of services.

Comparison of scenarios

The four scenarios are summarised as follows:

	Enhanced Rail	Bus with Walking and Cycling	Busway	Light Rail
Frequency	Frequency of trains 10 to 13 minutes during peak periods. Frequency of all other bus services 4 to 15 minutes during peak periods	Frequency of buses replacing trains 3 to 5 minutes during peak periods. Frequency of all other bus services 4 to 15 minutes during peak periods		Frequency of light rail services 10 minutes during peak periods (3 minutes for CBD section). Frequency of all other bus services 4 to 15 minutes during peak periods
Journey times	Journey times remain the same for existing rail users	Journey times increase for existing rail users who will travel on bus	Journey times similar for existing train users who travel on the busway with improvements for some express services	Journey times are similar for existing rail users who travel on light rail

Reliability	Travel time reliability for the 43% of peak period commuters who travel on train services will not be affected by traffic incidents and congestion	Travel time reliability for all bus services affected by traffic incidents and congestion, which will worsen as traffic grows (all peak hour commuters)	Travel time reliability for busway services not affected by traffic incidents and congestion (expected to be majority of peak period commuters)	Travel time reliability for light rail services from Johnsonville to Wellington Station not affected by traffic incidents and congestion
	Travel time reliability for the 57% of peak period commuters who travel on bus services will worsen as traffic grows		Travel time reliability for bus services not on the busway affected by traffic incidents and congestion (expected to be minority of peak period commuters)	Travel time reliability for light rail services between Wellington Station and Courtenay Place affected by traffic incidents and congestion, which will worsen as traffic grows
				Travel time reliability for bus services affected by traffic incidents and congestion, which will worsen as traffic grows
CBD congestion and priority measures	CBD congestion and traffic incidents will impact all services which run on roads including light rail			
	CBD will require some bus priority measures to cater for general growth in public transport use	CBD will require bus priority measures for additional buses. Road capacity and parking spaces in CBD may be reduced		CBD will require significant priority measures for light rail and consequential changes to bus priority measures. Road capacities and parking spaces in the CBD will be reduced
Northern suburbs congestion	Where additional bus priority measures are provided, the resultant decrease in road space for other users will increase general congestion			
Seamless service	Seamless service not possible through CBD to Courtenay Place	Seamless service possible through CBD to Courtenay Place		
Travel and waiting conditions	Vehicles more comfortable, reliable and attractive (new buses and new or refurbished rail vehicles where applicable)			
	Waiting environment more comfortable (new bus shelters and upgraded railway stations where applicable)			

Ability to understand services	Potential for regular clock-face timetable (same time past the hour) for 10 minute frequency	Operation similar to existing bus services	Potentially confusing operation for non-regular users as different bus stops may operate at different times of the day	Potential for regular clock-face timetable (same time past the hour)
Adaptability	Difficult and expensive to change route or extend coverage of rail service	Easy to change routes and extend coverage	Difficult and expensive to change route of busway but easy to change or extend bus routes at either end	Difficult and expensive to change route or extend coverage of light rail service
Cost	Cost between 104-133% of budgeted funding	Cost between 79-88% of budgeted funding	Cost between 100-108% of budgeted funding	Cost between 138-146% of budgeted funding
Other	Closure of Box Hill Station and relocation of Raroa Station to Fraser Avenue (required for 10 minute frequency option only)	Increased recreational opportunities with walking and cycling track along Johnsonville railway line	Closure of Johnsonville railway line during construction	Disruption on Johnsonville railway line and through CBD during construction

Proposed improvements under all scenarios

A number of public transport improvements are expected under all the scenarios put forward in this document.

General improvements to bus services

Under all scenarios existing bus services will be improved as funding becomes available. The following improvements are proposed for all scenarios except the *Busway Scenario*, which will have a different mix of services.

- New Broadmeadows route via Homebush Road and Khandallah, terminating in Johnsonville. This route would replace the Homebush Road section of the existing Route 43 and 44 loop, Route 46, Route 50 and the existing Route 53 service for Johnsonville West
- New Khandallah route via the Ngaio Gorge. This route would replace the Ngaio Gorge section of the existing Route 43 and 44 loop
- New Route 54 which removes the section of the existing Route 54 loop that uses Middleton Road. Services on this section of Middleton Road would be provided for by additional Route 59 services running to / from Courtenay Place and / or connecting with the Route 54 at Johnsonville
- Peak frequencies of between 4 and 15 minutes and off-peak frequencies of no less than 30 minutes to all suburbs served by bus

Before any significant changes are made, a full service review will be undertaken including public consultation.

Johnsonville town centre and transport hub

High quality public transport is integral to the successful growth and development of Johnsonville town centre. Improvements to the public transport facilities in Johnsonville will be required under all of the scenarios. The exact nature of the improvements will depend on the preferred scenario and the strategic vision for Johnsonville town centre, which is currently being developed in a separate exercise by Wellington City Council.

Wellington CBD

The Wellington Central Business District (CBD) is the primary employment area and destination for public transport users from the northern suburbs. Additional bus priority measures will be required under all scenarios where additional bus services are required through the CBD. An indicative cost of improvements has been included in all scenarios where appropriate.

Next steps

Decision making criteria

In reaching a decision on the preferred scenario, each scenario will be assessed against the following Regional Land Transport Strategy objectives, namely: assist economic and regional development; assist safety and personal safety; improve access, mobility and reliability; protect and promote public health; ensure environmental sustainability; consider economic efficiency and affordability.

In developing the scenarios for the future of passenger transport in the northern suburbs the issue of affordability has been considered and will limit the ability to suggest certain options. In terms of affordability, we have estimated that around \$70 million in today's equivalent dollars (NPV) will be available to fund public transport in the northern suburbs over the next 10 years. This figure includes contributions from local ratepayers and central government.

Public meetings

To find out more about the scenarios, please come to presentations at the Johnsonville Community Centre on Wednesday 21 June at 4.00pm or 7.30pm. Feel free to drop into the Community Centre any time between 3pm and 7pm that day, to look at the display and talk to project team members. You can also log onto www.gw.govt.nz to view the full Scenarios Report and make your submission online. Hard copies of the Scenarios Report are available at the Wellington Central Library and libraries in the northern suburbs.

Next stages

Your comments will feed into the next phase of the study that will develop and evaluate the scenarios in greater detail to identify a preferred scenario. You will have an opportunity to comment on the preferred scenario later this year.