2. WESTERN CORRIDOR STRATEGY

This corridor generally follows SH1 and the NIMT railway line from the regional border north of Otaki through to Ngauranga/Kaiwharawhara. The main east-west connections are SH58 and the interchange for SH1 and SH2 at Ngauranga.

2.1 LONG TERM STRATEGIC VISION FOR THE WESTERN CORRIDOR

Along the Western Corridor from Ngauranga to Otaki, SH1 and the NIMT railway line will provide a high level of access and reliability for passengers and freight travelling within and through the region in a way which recognises the important strategic regional and national role of this route. These primary networks will be supported effectively by local and regional connector routes.

A high quality rail service will accommodate the large number of people using public transport to commute along this corridor during the peak period. Bus services and park and ride facilities will provide additional access for the community.

Traffic congestion through the corridor will be managed at levels that balance demand against the ability to fully provide for peak demand due to community impacts and cost constraints, and the provision of an efficient and effective public transport system. Maximum utilisation of the existing network will be achieved by removal of key bottlenecks on the road and rail networks. Effective safety measures on the road and rail networks will ensure that no one is killed or injured as a result of network deficiencies when travelling in this corridor.

East-west connections between this corridor and other corridors and regional centres will be efficient, reliable and safe.

2.2 CONTEXT

This transport corridor is the primary route for inter-regional freight and tourism trips from the north, connecting through to Wellington City, the port and airport. It also provides for significant volumes of commuter trips from within the region, between local centres and through to the Wellington City CBD.

While the majority of Kapiti’s working residents are employed within Kapiti, Wellington City is the dominant commuter destination for people who travel outside Kapiti for employment. Porirua City, Lower Hutt and Palmerston North are also key employment attractors for Kapiti residents.

Growth in the Kapiti Coast has been driven by an expanding service sector, including: retail trade, health care and social assistance, education, accommodation and food services, and construction.

2.3 THE PROBLEM

Local trips, commuter trips and freight all compete for road space through this corridor leading to congestion and unreliable journey times, both during peak times and at other times such as weekends and holiday periods.

High traffic volumes along SH1, combined with numerous ‘at grade’ intersections (requiring vehicles to cross high volume and/or high speed traffic flows, with or without traffic signals) and property accesses (north of Porirua), lead to significant road safety issues. Both the road and rail network are particularly vulnerable to natural hazards and impacts from seismic events between Pukerua Bay and Paekakariki, where the narrow transport corridor is wedged between the hills and the sea. The lack of any alternative north-south route through the corridor means that a natural event or traffic incident on SH1 often results in severe delays and disruption to the wider network.
2.4 BENEFITS OF ADDRESSING THE PROBLEM

- **Economic growth supported** - efficient and reliable access to Wellington City as the region’s key employment centre, sub-regional centres such as Porirua and Paraparaumu, and to other key destinations for freight and tourism such as the Wellington CBD, the port and the international airport.

- **Improved resilience** - a robust transport corridor with good route alternatives and a range of travel options resulting in a reduced cost to the region from delays and disruption associated with natural hazards, events or incidents affecting the transport network.

- **Improved road safety** – a reduction in the number of road crashes throughout the corridor.

2.5 STRATEGIC PRINCIPLES – WESTERN CORRIDOR

The following strategic principles have been identified for the development of this transport corridor to address the above problems and challenges through a multimodal approach:

- A reliable, high capacity, modern and attractive rail network supported by effective bus services
- A safe, effective and reliable state highway corridor - attracting through trips off the local road network
- A resilient transport corridor, with good route options and alternatives, including east-west connectivity
- Well connected, safe and convenient walking and cycling networks, with good strategic links between them.

These strategic principles work together to provide an optimised solution. A high quality rail corridor will ensure a good proportion of commuter trips are made using public transport, increasing the efficiency of the transport system as a whole during peak times. However, public transport is not suitable for all trip types and a reliable and effective state highway corridor is needed to provide for other trips, including freight trips into and through the Wellington region from the north.

2.6 STRATEGIC RESPONSE – WESTERN CORRIDOR

A package of measures, across all transport modes and networks, is proposed for this corridor consistent with the above strategic principles.

**Implementing safety and efficiency improvements to SH1**

A number of projects are proposed to provide improved safety and efficiency outcomes for SH1 through the Western Corridor. Along SH1 between Tawa and Otaki, this involves provision of a new parallel route that will go around rather than through communities, and that will avoid key pinch points such as the narrow coastal stretch of existing SH1 between Paekakariki and Pukerua Bay. These will be median divided expressways designed to modern safety standards, with grade separated interchanges. The key measures include the following Wellington RoNS projects:

- Transmission Gully highway
- MacKays to Peka Peka
- Peka Peka to Otaki

Associated with the RoNS are improvement works to local roads to provide enhanced access for local communities and well as improving freight links.

Work will also be needed to investigate and agree any future changes to the existing SH1 corridor once the new Wellington RoNS are operational and the existing road becomes a local road through the state highway revocation process.

**Continued improvements to deliver a modern, reliable, and accessible rail system**

Over recent years, significant investment has been made in the rail system through this corridor to improve track and signalling systems and rolling stock to address reliability issues. This has included double tracking and extension of the electrified urban commuter network to Waikanae. Ongoing investment in the rail network through enhanced service patterns and infrastructure upgrades will be important to ensure that public transport remains an attractive and competitive mode choice in future.

The approach to the long term development of the rail network is identified through the Regional Rail Plan which includes an ‘implementation pathway’. Rail Scenario 1 is the next stage of investment and will be implemented over the short to medium term. The key measures for this corridor under Rail Scenario 1 include:

- A new service pattern to optimise capacity
- Turnback facilities at Porirua and Plimmerton
- Signalling and track upgrades through Tawa Basin
- Other infrastructure improvements such as safety at level crossings and ‘park and ride’ facilities.

In the longer term there are several potential investment scenarios identified in the Regional Rail Plan. These are described as Rail Scenario 2, Rail Scenario A and Rail Scenario B. They provide different levels of emphasis on capacity, journey times, and network expansion to respond to changing external pressures and community needs.
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Addressing road safety on the strategic road network

Outside of the Wellington RoNS projects, a number of other measures are proposed to contribute to a safer strategic road network through this corridor. The key measures include:

• Extending the median barrier on the existing SH1 route between Centennial Highway and MacKays Crossing.

• Improving pedestrian facilities across existing SH1 at Pukerua Bay and Otaki.

• A package of targeted safety improvements between Otaihanga and Waikanae along the existing SH1 route.

• A package of targeted safety improvements along SH58, including intersection upgrades, passing lanes, road realignment, median barriers and other safety works.

Improving connectivity and safety of key walking and cycling routes

Projects to provide safe and attractive walking/cycling facilities along strategic routes and across road and rail corridors will be pursued to improve connections between communities. The key measures include:

• Improving connections to the Ara Harakeke shared walk/cycleway by providing new or upgraded walkway/cycleway facilities from Tawa in the south and from Paekakariki in the north.

• Investigating walking and cycling links as part of the Wellington RoNS projects, to look for opportunities to provide new facilities along and across the new SH1 alignment, or along the existing SH1 alignment as part of the revocation process. This includes development of a cycling route through Queen Elizabeth Park connecting Paekakariki and Raumati.

Improving east-west connectivity between this corridor and the Hutt Valley

The investigation and construction of a new link road between SH1 and SH2 (known as the Petone to Grenada link road) will be progressed to provide more direct and efficient access between centres in the Western and Hutt corridors, and to contribute to greater route alternatives and improved network resilience. This link road will also reduce congestion on SH1 and SH2, provide future access to the Lincolnshire Farm growth area, and may accommodate more direct east-west public transport services.

Major safety upgrades along SH58, the existing east-west connection between the Western Corridor and Hutt Corridor, are proposed.

Identifying and addressing network vulnerabilities

All organisations responsible for managing and operating the region’s land transport network will work together to identify key vulnerabilities in the transport network that may affect the ability of the wider network to resume service after disruption caused by an incident or event.

Solutions to address these network vulnerabilities and to improve overall transport network resilience will be identified and funding for packages of improvements through the NLTP will be sought.

2.7 TIMING AND SEQUENCING CONSIDERATIONS – WESTERN CORRIDOR

An immediate priority for this corridor is to address identified safety issues and walking/cycling improvements along the existing SH1 route, and build on recent rail improvements by optimising capacity to provide for projected patronage growth, and increasing freight capacity and speed.

Whilst some of the Wellington RoNS projects have already commenced, it will be around 2018 before the first of these is likely to be completed and operational. Consequently, the associated safety and reliability improvements, walking/cycling improvements and benefits associated with revocation of the existing SH1 route will not be fully realised until the medium term.

Longer term, the need for the rail system to provide an attractive and competitive public transport option for commuters will become increasingly important as the RoNS projects become operational. To ensure public transport continues to maintain and grow its share of commuter trips through this corridor, and to maintain the reliability benefits of the new SH1 route in the future, continued investment in rail network improvements will be crucial.