

## Assessment of proposed projects against the Hutt Corridor objectives

Note: This assessment of the potential projects against the Hutt Corridor objectives was completed during the review process to assist us in developing a draft plan. It was based on projects/packages as they were described at that time. Since then, the Melling package and the Petone to Gracefield projects have been modified to reflect current project scopes based on very recent decisions. These updated projects and timings are what have been included in the draft plan.

**Key:** ✓ Moderate contribution      ✓✓ High contribution

Objective: Project/package	Provide for future growth freight/popn/employment – consistent with WRS	Reduce severe congestion	Improve multi-modal accessibility	Improve route security and network resilience	Improve road safety
Petone package	<p>✓✓</p> <p>Improved links for people and freight between existing key activity areas of Petone/Hutt City and Porirua and serves future growth areas of Johnsonville, Lincolnshire Farms, and Grenada</p> <p>Reduces trip length by 7km between Petone and Grenada (based on previous trip via Ngauranga interchange)</p> <p>Generates additional economic and social activity and interaction between key centres in the east and west corridor</p>	<p>✓✓</p> <p>Estimated to result in a reduction of around 25,000 vpd (both directions) on SH2 (WTSM March 2011)</p> <p>In AM peak results in a travel time reduction of 7 minutes between SH1 and SH2 and reduction in volume/capacity ratio from 1.1 to 1.0 on SH2 in southbound direction (WTSM March 2011)</p> <p>This package also has significant positive benefits on SH1 (outside the corridor) in terms of travel times and congestion relief</p> <p>Also has network wide congestion benefits including reduced traffic volumes on SH58 which</p>	<p>✓✓</p> <p>Improved east-west connectivity between communities in the Hutt Valley and North Wellington/Porirua – for vehicle trips, bus trips and walking/cycling.</p> <p>Link road project enables the new 'Beach to Bush' link Belmont Regional Park and Petone Foreshore and potential new walk/cycle links along the Petone to Grenada link road.</p> <p>Enables direct bus services between Hutt Valley and North Wellington – could also service Lincolnshire Farms and Horokiwi areas</p>	<p>✓✓</p> <p>Providing an additional east-west route at this location would significantly improve network resilience in the event of an incident on SH2 or SH1</p> <p>This is particularly relevant for incidents between Ngauranga and Petone which are very prone to slips, storm surges etc - with no adjacent alternative route. In this case a Petone – Grenada link would provide an alternative that does not require significant detours and travel time delay</p>	<p>✓</p> <p>The Petone to Grenada link will include upgrade of the existing Petone interchange. The current approach to the interchange has an "S" bend with a posted speed limit of 70km/h associated with a number of crashes over the past five years.</p> <p>The Link could also reduce safety risk at the SH2 Horokiwi intersection by providing an access to Horokiwi settlement from the link road. Also the link road could be a safer alternative to SH1 and SH2 for cyclists.</p>

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			would off-set any increases from Transmission Gully and defers need for additional capacity on SH58		
<b>SH58 4-laning</b>	<p>✓</p> <p>Improved capacity on an existing east-west link between Hutt Valley and Porirua/Western Corridor</p> <p>Supports potential future industrial activities in Upper Hutt for freight vehicles travelling between Upper Hutt and Porirua/north</p> <p>However, location of this existing east-west link does not serve as a direct link between the existing major activity areas which are expected to continue growing in future and to be dominant traffic and freight generators in the region.</p>	<p>✓</p> <p>Localised congestion benefits on SH58 and adjacent pieces of local network</p> <p>Does not have any impact on the severely congested parts of the network on SH2 South of Petone or SH1 south of Tawa</p>	<p>✓</p> <p>Potential for new walk/cycle facilities as improvements to the route, however demand for walk/cycle 'trips' likely to be relatively low given the distances between key destinations</p> <p>Unlikely to be any new PT potential – trial bus services linking Porirua and the Hutt Valley via SH58 have previously been unsuccessful</p>	<p>✓</p> <p>Provides additional capacity on existing east-west link – leading to less significant delays if traffic is detoured via SH58 when incident occurs on SH1 or SH2. However still means lengthy detour between key population centres of Wellington City and Lower Hutt, North Wellington/Porirua</p> <p>While the SH58 route is subject to slips which may become more frequent under future climate change scenarios, it has the advantage of being located away from the vulnerable area at Petone foreshore</p>	<p>✓</p> <p>There are relatively high numbers of crashes currently on this state highway compared to traffic volumes using it - Road safety improvements are expected to be part of 4-laning work</p>
<b>Melling package</b>	<p>✓</p> <p>Provides for existing and future demand for these intersections as a result of population and employment growth in</p>	<p>✓</p> <p>No current mid-block capacity issues but congestion at traffic signals. Package will help with smoother traffic</p>	<p>✓</p> <p>Improved access to and function of Melling railway station</p> <p>Associated</p>	<p>✓</p> <p>Provides a new bridge over the Hutt River, eliminating an existing flooding risk threatening SH2</p>	<p>✓✓</p> <p>Project focuses on interchange improvements to remove at-grade interchanges and</p>

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	Hutt Valley  Improved access to Lower Hutt CBD and future Melling railway station are key benefits	flows, reduced journey times and localised de-congestion benefits through this section of SH2	improvements to pedestrian and cyclist connectivity with interchange upgrades and along the stopbank route	upstream of Melling.	improve road safety through this stretch of SH2, many of which are current crash hotspots
<b>SH2/58 Grade Separation</b>	✓ Improves capacity of intersection, however does not significantly improve network capacity or links	Minor localised de-congestion benefits around intersection only	No significant contribution to this objective  Minor contribution to improved east-west links between Western and Hutt Corridors	No significant contribution to this objective	✓✓ Project provides a significant safety improvement at this location which has a poor safety record
<b>Strategic walking and cycling package</b>	Supports growth in walking/cycling but no significant contribution to this objective	Very small congestion relief benefits only due to relatively low numbers of cyclists compared with motor vehicles. (eg - doubling the number of existing cycle journeys between Petone and Ngauranga would see an increase from 430 to 860, in the context of 67,000 vehicles per day on the adjacent SH2)	✓✓ Provides improved off highway facility for cyclists/pedestrians that improves connectivity between modes (eg. walk/cycle access to stations) and between communities through the Hutt Valley. Completes walk/cycle connection to Wellington City CBD from Hutt Valley	✓✓ Provides transport choice and a feasible alternative for short – medium length trips by cycling/walking in peak oil scenarios	✓ Improved safety for cyclists through provision of a safe off highway alternative to SH2 and busy local roads
<b>Silverstream package</b>	✓ Provides improved access for people and freight to accommodate demand from current and future population growth and potential new industrial activity in	✓ Localised de-congestion benefits  SH2 between Silverstream and Whakatiki Street is already at capacity –	No significant contribution to this objective – minor associated pedestrian and cycling improvements	No significant contribution to this objective	✓✓ Contributes to addressing the significant number of fatal and serious crashes that have occurred along this section, both at

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	Upper Hutt – but to a lesser extent than projects which serve established significant activity areas and the likely growth within those areas	although traffic volumes on this section of the network (approx 1800 vph in peak direction) are about half of the volumes on SH2 between Petone and Ngauranga (approx 3200 vph in peak direction)			intersections and along the mid-block sections
<b>Rail network improvements package</b>	✓✓ Provides additional capacity and a more reliable and frequent service for existing high commuter demand between Hutt Valley and Wellington and expected future growth in demand. Particularly important on along this corridor where freight and commuters compete for road space	✓ Seeks to increase rail patronage - a proportion of these trips are expected to be transferred from car trips with associated de-congestion benefits along the severely congested sections of SH2 between Petone and Ngauranga	✓✓ Improves mode choice - greater capacity and frequency for rail commuters  Station and park n ride upgrades resulting in improved integration between modes	✓ Improving rail reliability, capacity and frequency provides improved travel choices – particularly important under peak oil scenarios given our trains are electric  Does not address vulnerability of Hutt rail services to climate change around Petone	✓ Some safety contributions resulting from expected mode shift from car to public transport as a safer mode
<b>Petone -Gracefield (Cross Valley Link)</b>	✓✓ Provides improved connection to the Gracefield area which is identified in the WRS as a key future industrial growth node.  Provides for existing high numbers of freight movement between Gracefield and Petone which is projected to	✓ Would result in a significant reduction in the number of vehicle trips per day on the Petone Esplanade from 32,000 to 22,000 in 2016  Local route de-congestion benefits	✓ Improves safety and amenity for pedestrians and cyclists on Petone Esplanade and improved access to Petone railway station	✓ Proves an east-west link across Lower Hutt that is significantly less at risk from future climate change impacts than existing Esplanade route	No significant contribution to this objective – some minor safety benefits for pedestrians/cyclists using the Petone Esplanade due to less traffic

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SH2 Safety improvements	No significant contribution to this objective	No significant contribution to this objective	No significant contribution to this objective	No significant contribution to this objective	✓✓ Primary reason for project is to address safety  Involves low cost, short term safety interventions such as median barriers and skid resistant surface treatment
SH58 Safety improvements	No significant contribution to this objective	No significant contribution to this objective	✓ Project has potential to include improved facilities for pedestrians and cyclists along and across SH58 as part of any safety works  Note: no specific proposals were identified as part of NZTA SH58 Strategy Study	No significant contribution to this objective	✓✓ Project involves a package of minor safety works to be undertaken over next 20 years to continuously improve the safety of road users.
PT Service review	✓ Improves public transport access to residential and employment areas to better serve current demand and future growth	While review may include some increased capacity or serving new areas where growth, it is unlikely to have any impact on severe congestion between Petone and Ngauranaga above what RS1 can achieve	✓✓ Focus is on improving access for public transport. Will include improved integration with walking, cycling, park n ride, and rail/bus.	✓ Improve travel options – contributes to network resilience under peak oil scenario	While public transport is a safer mode than car travel, service reviews unlikely to affect capacity/mode shift to an extent likely to have significant safety benefits

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<b>SH2 Maoribank to Moonshine Bridge (River Road) 4-laning</b>	✓ Responds to future population and employment growth in Upper Hutt – but to a lesser extent than projects which serve established significant activity areas and the likely growth within those areas	No significant contribution to this objective  Will address future localised congestion issues on this section of SH2 which is expected to reach capacity over the next ten years	No significant contribution to this objective	No significant contribution to this objective	✓ Safer road alignment associated with the 4-laning works
<b>Akatarawa Hill upgrade</b>	No significant contribution to this objective	No significant contribution to this objective	No significant contribution to this objective	✓ Provides a feasible alternative route between Upper Hutt and Kapiti in case of an incident – eg. Flood event closing Moonshine Bridge  Unlikely to be useful during closure of SH2 or SH1 further south due to its location and length of detour	✓✓ Significant safety improvements on this existing route - which has a high crash rate - as part of proposed realignment scheme  Improves safety for recreational cyclists who frequently use this route
<b>Seaview rail line retention</b>	✓ Potential to provide an option for freight movement to/from a key industrial employment location and growth node	✓ Potential to transfer some freight movements from the heavily congested Petone Esplanade route onto rail	✓ Contribution to mode choice for freight	✓ Provides mode choice for some freight trips in peak oil scenario	No significant contribution to this objective
<b>Petone to Ngauranga additional lane(s)</b> [Note: The Ngauranga Triangle Study considered	✓✓ The aim of this project would be to increase capacity on this very important section of SH2 which connects	Previous studies have shown that a merge of three lanes with two lanes south of Ngauranga (at the intersection of SH1 and	No walking/cycling improvement was assumed as part of this project description.	No significant contribution to this objective	No significant contribution to this objective

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several options for improving vehicle flows between Petone and Ngauranga. Our assessment is based on the project titled Additional General Purpose Reversible Lane or Shoulder which was brought through to Short Options stage]		Hutt Valley with Wellington City, the CBD, Port and Airport.  However note major constraints and issues with this project discussed under the congestion objective.		SH2) is not desirable as this will lead to significant congestion.  Even if Aotea Quay is eventually upgraded to eight lanes the merging of three and two lanes into four lanes results in unacceptable congestion.					