

Waikato Expressway Network Plan



Version 3.0

Quality Assurance Statement	Name	Signature / Date
Prepared by:	Myles Andrews	
Reviewed by:	Robert Brodnax	
Approved for Issue by:	Robert Brodnax	
Approved for Release by:	Dave Brash	

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Executive Summary

Purpose of the Network Plan

The purpose of the Waikato Expressway Network Plan is to guide and support on-going integrated planning and decision making for the Waikato Expressway and its associated sub-regional network. This includes integration of the Expressway with the local transport network, significant land use activities and associated infrastructure within the wider Waikato network and region.

This purpose is two-way;

- 1 To ensure that local authority stakeholders can plan and invest with confidence to maximise local outcomes from the investment in the Waikato Expressway and;
- 2 To allow the Transport Agency to invest with confidence that stakeholder planning and investment will support the key objectives of the Expressway as a Road of National Significance.

Outcomes Sought

The key outcome sought for the Network Plan is to achieve the objectives of the Waikato Expressway as a Road of National Significance.

These objectives are:

- To enhance inter regional and national economic growth and productivity;
- Improve journey time reliability and relieve congestion through the main urban centres along SH1;
- Improve safety and reduce crashes on regional arterials including SH1;
- Focus freight movement onto SH1 rather than upgrading alternative routes; and
- To provide improved local network operation and opportunities for improved urban design, travel choice and community connectivity within the major urban areas bypassed by the expressway.

Network Plan Area of Interest

The Network Plan area of interest comprises a broad corridor along the length of the Waikato Expressway and includes locations and road sections where changes in traffic volumes (of greater than 10%) may result from implementation of the Expressway. The scope includes the road network and its relationship with land use and other transport systems including rail, passenger transport and active modes such as walking and cycling.

For detailed analysis purposes, the Network Plan separates the area of interest into three sectors; northern, central and southern (Sector Maps, Part C). These sectors broadly align with the areas of influence associated for the three territorial authorities present within the subregion.

Network Plan Review and Structure

To assist in achieving its objectives, the Network Plan has been conceived as a living document to support and guide integrated and co-ordinated planning and investment processes for the Waikato Expressway and the associated road network. The document has therefore been designed to evolve as understanding develops key decisions are made and implemented.

This version (Version 3.0) is the second review of the Network Plan and provides an update by building on the two previous versions. This continues the increased focus from Version 2.0 towards guiding the implementation of activities, particularly those associated with the critical issues identified in Versions 1.0 and 2.0. There is also an increased focus on clarifying problem definitions for the issues identified, to make the document more consistent with the Business Case Approach currently being adopted by the Transport Agency. This revised version has similarly been developed through a collaborative process with the Future Proof Transport Reference Group comprising Waikato District, Hamilton City, Waipa District Councils, Waikato Regional Council, Waikato Tainui and Kiwirail. Implementation actions (refer Parts C and D) have been developed with direct input from Waikato District, Hamilton City and Waipa District Councils in particular.

This version of the Network Plan:

- Provides an updated snapshot of the current and expected transport system and land use patterns associated with the Expressway;
- Reflects further development in strategic context, for example the decisions version of the Proposed Waikato Regional Policy Statement, the Proposed Auckland Unitary Plan and the Government Policy Statement for 2012-15;
- Reflects recent legislative change, including key amendments to the Land Transport Management Act (2003) through the Land Transport Management Amendment Act (2013);
- Updates progress on the critical issues identified in the previous versions of the Network Plan;
- Provides additional detail regarding the proposed revocation of 'existing' state highway sections, including considerations required under the Transport Agency's State Highway Revocation Policy and Guidance released in 2012 and plans showing indicative details, including staging, of revocation at a network scale.
- Updates progress with all other issues and opportunities, including the introduction of high-level problem descriptions for each issue.

To capture the above, the Network Plan is structured into four parts:

- Part A: Introduction – outlining the purpose of the plan, defining the network and the context for the Expressway;
- Part B: Strategic Policy Context – summarising planning and transport policy context relevant to the Expressway and associated networks;
- Part C: Issues Opportunities and Risks – detailing the key issues, opportunities and risks for the Expressway and its associated networks; and
- Part D: Implementation - identifying and prioritising activities and packages, and the implementation actions required to achieve optimisation of the network across the area of interest.

Issues, Opportunities and Risks

The full range of issues and opportunities captured within the Network Plan are shown on the maps in Part C for the northern (Pokeno to Taupiri), central (Taupiri to Tamahere) and southern sectors

(Tamahere to south of Cambridge). Issues/opportunities have been identified in consultation with key stakeholders, analysed then rationalised in terms of relevance to the purpose of the Network Plan. In summary the issues include:

- 1 Progressing Structure Planning for the Waikato District including the North Waikato area, Ngaruawahia, Horotiu, and Huntly.
- 2 A: Determining the future function and form of SH39, including northern connectivity.
B: Assessing the future relationships between, and functions of SH1/3/21/39 and Southern Links.
- 3 Determining the future function and form of Te Rapa Road following completion of Te Rapa section.
- 4 Investigating and determining the form and function of Hamilton Section interchanges and connectivity with the network in the east for example State Highway 1B.
- 5 Land use pressures for the Airport, Hautapu, Tamahere and Cambridge.
- 6 Optimising access from the Expressway to the Hamilton Central Business District (CBD) as a sub-regional centre (as defined in the RPS).
- 7 Route consideration for High Productivity Motor Vehicles (HPMVs) on local roads throughout the sub-region as routes to and from the Expressway.
- 8 Developing an Expressway servicing and signage strategy.
- 9 Passenger Transport for the Future Proof sub region in reference to reducing local trips on the Expressway, for example between Cambridge and Hamilton.

In terms of the above, the key risks for funding availability and continuity for the Expressway within the Network Plan are considered to be:

- 1 Potential delays in progressing implementation actions on the critical issues which may in turn delay progress on critical components of the Expressway and associated networks.
- 2 Significant changes to the Future Proof land use patterns that the network infrastructure is developing to serve.
- 3 Significant development outside the Future Proof land use patterns in terms of location or staging that may undermine investment in the Expressway.

Critical Issues

A number of issues were identified within the last Network Plan from the above as requiring immediate action as they have the potential to delay progress on critical components of the Expressway and associated networks. These issues were prioritised as “critical issues” and included;

Critical Issues Network Plan Version 1.0:

- 1 Determining the location and form of interchanges on the Hamilton section (including greater certainty regarding land use development at Ruakura);
- 2 Potential traffic flow impacts on Hamilton City’s arterial network resulting from staging and timing of each expressway section, for example managing congestion in Hillcrest until completion of the Hamilton Section;
- 3 The implications for the Hamilton South interchange (function and capacity) arising from potential development within the catchment for that interchange;
- 4 Progress development of a cost-sharing agreement for Hautapu Interchange, recognising the revised business land allocations under Future Proof/ RPS;
- 5 Agreement of principles to guide revocation of state highway sections.

Subsequent to Version 1.0, significant progress was made by key stakeholders on critical issues regarding the Hamilton South Interchange, Hautapu Interchange and the staging and timing impacts on Hamilton’s arterial network.

Since a number of key issues remained regarding the form and function of the Hamilton Section interchanges, and also the revocation discussions between stakeholders, these were retained as critical issues in Version 2.0 with only minor rewording to allow a change in focus. A number of new critical issues had also emerged that required attention by the stakeholders to resolve.

Given the above, Version 2.0 prioritised the following as critical issues requiring immediate action;

Updated Critical Issues - Version 2.0:

- 1 Land use pressures (residential and employment growth) for the Waikato District in the north Waikato, Ngaruawahia and Huntly and the potential impacts of pressures on the future functioning of the Expressway.
- 2 Determining the location and form of interchanges on the Hamilton section (including greater certainty regarding land use development at Ruakura) and connectivity to local network to the east of Hamilton;
- 3 Determining the future function and form of SH39, including northern connectivity.
- 4 Planning the future function and form of Te Rapa Road following the completion of the Te Rapa Section.
- 5 Optimising access to the Hamilton CBD from the Waikato Expressway.
- 6 Optimising the allocation of strategic employment land at Hautapu to take account of a range of outcomes including employment self sufficiency for Cambridge, taking into account constraints including interchange capacity.
- 7 Addressing the impacts on the Hamilton South interchange (function and capacity) arising from land use pressures within the catchment for that interchange, through an agreed package of interventions.
- 8 Developing an agreed approach to determining the future form and function of the state highway sections identified for revocation throughout the subregion.
- 9 Determine optimal locations for motorist services, stock truck effluent facilities and weighstations on Expressway sections, and determine route and destination signage for the Expressway.

Version 3.0 again reflects the progress made against a number of critical issues, including the future form and function of SH39 and Te Rapa Road, optimising access to the Hamilton CBD, and optimising the allocation of strategic employment land at Hautapu. This version therefore prioritises the following as critical issues requiring immediate action:

Critical Issues Network Plan Version 3.0:

- 1 Integration with Auckland Spatial Plan and Waikato District Boundary changes and planning for land use pressures in north Waikato and south Auckland.
- 2 Determining the location and form of interchanges on the Hamilton Section (including greater certainty regarding land use development at Ruakura) and connectivity to local network to the east of Hamilton.
- 3 Addressing the impacts on the Hamilton South interchange (function and capacity) arising from land use pressures within the catchment for that interchange, through an agreed package of interventions.

- 4 Continue to apply the Transport Agency revocation policy including agreement of the future form and function of state highway sections identified for revocation throughout the sub-region.
- 5 Land use changes in the vicinity of Hamilton International Airport.
- 6 Staging and coordination between Wairere Drive and the Hamilton Section.
- 7 Develop and agree guidance to support decision making for the location of on-route facilities including motorist services, stock truck effluent facilities and weighstations on Expressway sections.

Appendix G includes an explanation of how the critical issues have been amended across versions, to assist in tracking progress.

Plan Implementation – Groups

Network Plan implementation is to be fundamentally driven through collaboration with members of the Future Proof Transport Reference Group and other key stakeholders to progress and prioritise the activities required for optimising the Expressway and associated networks.

To guide these implementation processes, the Network Plan identifies 19 groups of activities requiring actions from stakeholders. Each of these groups of activities addresses a common set of issues/opportunities, capturing relevant land use and transport activities. Where possible, groups have been structured to align with packages of work identified within existing strategies and plans.

The individual transport activities within each group have been evaluated in terms of their contribution to the objectives for the Expressway and associated network, and allocated a ranking of 1, 2, 3 or nil, corresponding to High, Medium, Low or no contribution. The evaluation is based on an assessment of the significance of the contribution in a similar way to how “strategic fit” of an issue is assessed following Transport Agency procedures. This assessment involves the use of road, land use, traffic data and forecasts and criteria such as: economic development level of service/efficiency criteria and safety criteria. Local road improvement activities assessed as being critical to the operation of the Expressway receive a High strategic fit as a result.

The prioritisation of implementation actions around each group of activities has been developed using the Transport Agency’s intervention hierarchy, considering the implementation of low cost measures before the consideration of significant infrastructure improvements and operation activities.

It is noted that there is still a need for identified activities to be assessed in the relevant statutory frameworks such as the Land Transport Management Act, Resource Management Act and Local Government Act. All transport activities included in the Plan will still be evaluated for strategic fit, effectiveness and efficiency in accordance with the Transport Agency’s investment requirements and this assessment will continue to recognise the contribution of activities to the objectives for the Expressway and associated network, as described in this Network Plan.

Priority Groups and Package Development

To further guide implementation, this version of the plan identifies a number of priority groups containing activities required to address the critical issues identified.

The land use and transport activities identified within these priority groups will be considered in formulation of the next Regional and National Land Transport Programme (RLTP/ NLTP), and will

also inform prioritisation of regional and local authority strategic and resource management planning and Long Term Plan processes. In terms of RLTP/NLTP processes, the priority groups identified may be used as a basis for the development of packages for Transport Agency endorsement.

These priority groups are summarised as follows:

Group	Relevant critical issue/s	Lead Agency (Support Agency)	Strategy to support package development/ implementation	Summary of Actions required
Group 01 – SH39 Corridor	4	NZTA (HCC, WKDC)	Network Plan Waikato Integrated Land Transport Strategy	NZTA - develop form and function statements in partnership with Waikato DC.
Group 02 – Wairere Drive (Hamilton Ring Road)	2, 6	HCC (NZTA)	Access Hamilton	HCC - Complete construction of Wairere Drive Extension (Ruakura to Cobham). HCC - development of alternative modes on adjacent corridors (e.g. Peachgrove/ Hukanui).
Group 03 – Northern Corridor (Hamilton City)		NZTA (HCC, WRC)	Access Hamilton	HCC - coordination of construction programme in Rotokauri. WRC and HCC - PT strategy review.
Group 05 – Tamahere Area	3	WKDC (Future Proof, NZTA, HCC)	Network Plan	All - Develop package for RLTS. NZTA and Waikato DC - South East Hamilton One Network Review
Group 06 – Cambridge Area	7	WPDC (Future Proof, NZTA)	Waipa Integrated Transport Strategy	NZTA - develop form and function statements in partnership with Waipa DC. Waipa DC – progress District Plan through statutory processes
Group 07 – Future Form and Function of existing State Highways in Waikato DC (SH1, SH1B and SH39)	4, 7	NZTA (WKDC)	Network Plan Waikato Integrated Land Transport Strategy	NZTA - develop form and function statements in partnership with Waikato DC. NZTA and WkDC - Support Expressway objectives by encouraging early uptake of new alignments/ Expressway Sections as they are completed

<p>Group 09 – Future Form and Function of existing State Highways in Hamilton CC (SH1, SH3 and SH26)</p>	<p>4</p>	<p>NZTA (HCC)</p>	<p>Access Hamilton</p>	<p>NZTA and HCC - determine long-term form and function of existing SH3 as part of Southern Links investigation.</p> <p>NZTA - consider form and function of existing SH1 and SH26 between the Expressway and Hamilton City".</p> <p>NZTA - Support Expressway objectives by encouraging early uptake of new alignments/ Expressway Sections as they are completed</p>
<p>Group 12 – Expressway Connectivity: Hamilton Section</p>	<p>2, 3, 4</p>	<p>NZTA (HCC, WKDC)</p>	<p>Network Plan Access Hamilton</p>	<p>NZTA – progress alteration to designation to reflect agreed interchange locations and connectivity</p> <p>HCC - confirm proposed funding source and timing for Resolution Drive connection.</p>
<p>Group 16 – Future Form and Function of existing State Highways in Waipa DC (SH1 and SH1B)</p>	<p>4</p>	<p>NZTA (WPDC)</p>	<p>Network Plan Waipa Integrated Transport Strategy</p>	<p>NZTA - develop form and function statements in partnership with Waipa DC.</p> <p>Support Expressway objectives by encouraging early uptake of new alignments/ Expressway Sections as they are completed</p>
<p>Group 17 – North Waikato Land use</p>	<p>1</p>	<p>WKDC (NZTA, Future Proof)</p>	<p>Network Plan Waikato Integrated Land Transport Strategy</p>	<p>Waikato DC - Structure planning for urban areas within the District</p> <p>NZTA - manage connectivity to the Expressway.</p> <p>Future Proof partnership – develop understanding of key planning issues and collaborate with other agencies to develop vision.</p>
<p>Group 18 – Hamilton City Centre Growth and access</p>	<p>2</p>	<p>HCC (NZTA, Future Proof)</p>	<p>Access Hamilton</p>	<p>HCC – progress District Plan through statutory processes</p> <p>NZTA - manage connectivity to the Expressway.</p> <p>Adopt a coordinated approach to signage to optimise access between the Expressway and city centre (NZTA and HCC)</p>

Future Plan Updates

In order to progress this Network Plan, endorsement will be sought from the appropriate delegation level within the Transport Agency. This endorsement will recognise that the Network Plan highlights opportunities for further optimisation of existing planning and transport strategies and packages, and the Transport Agency will work collaboratively with the stakeholders to achieve this.

All future updates to the Network Plan will be carried out in consultation with the Future Proof Transport Reference Group and key stakeholders to continue collaboration in progressing the critical issues for the Expressway.

Future reviews of the Network Plan will be nominally on a two yearly basis, unless prompted by significant changes in policy direction or major, unforeseen land use changes. An action plan will be developed with the Future Proof Transport Reference Group to focus on the actions required for implementation and allow regular monitoring of progress by that group in between further reviews of the document. The action plan will provide further detail and reference to the critical issues and priority groups outlined above.

Part A

1.0 Introduction

1.1 Purpose of the Network Plan

The Government Policy Statement on Land Transport Funding (GPS) November 2010 identified seven key transport routes requiring significant development to reduce congestion, improve safety and support economic growth. These Roads of National Significance (RoNS) include the Waikato Expressway, and represent a statement of investment priority at a national level, and this investment focus continues to be a priority within the current GPS (2012/13 – 2021/22).

To ensure the maximum national benefit is derived from investment in the RoNS, the GPS emphasises the need for the future development of the land transport network to reflect their importance.

To achieve this, the Transport Agency advocates an integrated approach to planning associated with the Waikato Expressway. This approach analyses the potential impacts of existing and proposed land use changes on the Expressway, advocates the need to efficiently integrate local transport networks with the Expressway, and recognises the role of other transport modes in supporting the outcomes sought for the Expressway.

The key purpose of this Network Plan is to support and guide this integrated approach to planning and decision making for the Waikato Expressway. The Network Plan seeks to achieve this through:

- Summarising the key purposes, objectives and expected outcomes of the Expressway and associated networks;
- Providing a snapshot of the current and expected transport system and land use patterns associated with the Expressway;
- Identifying and summarising the key issues, opportunities and risks to the Expressway and associated networks;
- Assessing the degree of optimisation contributed by significant associated activities;
- Identifying critical issues requiring priority actions before the next Network Plan review;
- Informing Regional Land Transport Programme (RLTP) and National Land Transport Programme (NLTP) processes;
- Providing early the Transport Agency investment signals to guide stakeholder engagement processes; and
- Identifying a framework for future reviews of the Network Plan, including an action plan to be developed and managed in conjunction with the Future Proof Transport Reference Group.

The Network Plan has been designed as a “living document”, that is regularly updated as understanding increases and progress is made towards the implementation of the Expressway. This version (version 3.0) is the second revision to the Network Plan following its adoption by the Transport Agency in December 2010 and builds on versions 1.0 and 2.0 of the Plan. Version 2.0

took account of updates to national policy such as Connecting New Zealand¹, and the Transport Agency's revised Investment and Revenue Strategy, which gives effect to the GPS (2012-15). Version 2.0 also took into account work carried out to date on the critical issues identified in Version 1.0, including the Waikato Expressway Future land use pressures study undertaken on behalf of Future Proof. A table setting out tracking of the critical issues between versions is provided in Appendix G.

The Network Plan was developed to be consistent with the Future Proof guiding principles, and to build on relevant existing plans and strategies, providing further guidance on strategic issues where required. Subsequent versions have continued this approach.

1.2 Network Plan area of Interest

The broad geographic focus of the Network Plan is the Future Proof sub region, comprising the Waikato and Waipa Districts and Hamilton City Council. This includes the part of former Franklin District that now lies within northern Waikato District, following the Auckland governance changes in 2010. The roading network considered as part of the Plan is essentially the SH1 Waikato Expressway, state highways connecting to SH1 and key local road arterials as highlighted on the Sector Location Map below. Where appropriate (predominantly within urban areas), networks for public transport and active modes such as walking and cycling are also considered as part of the network.

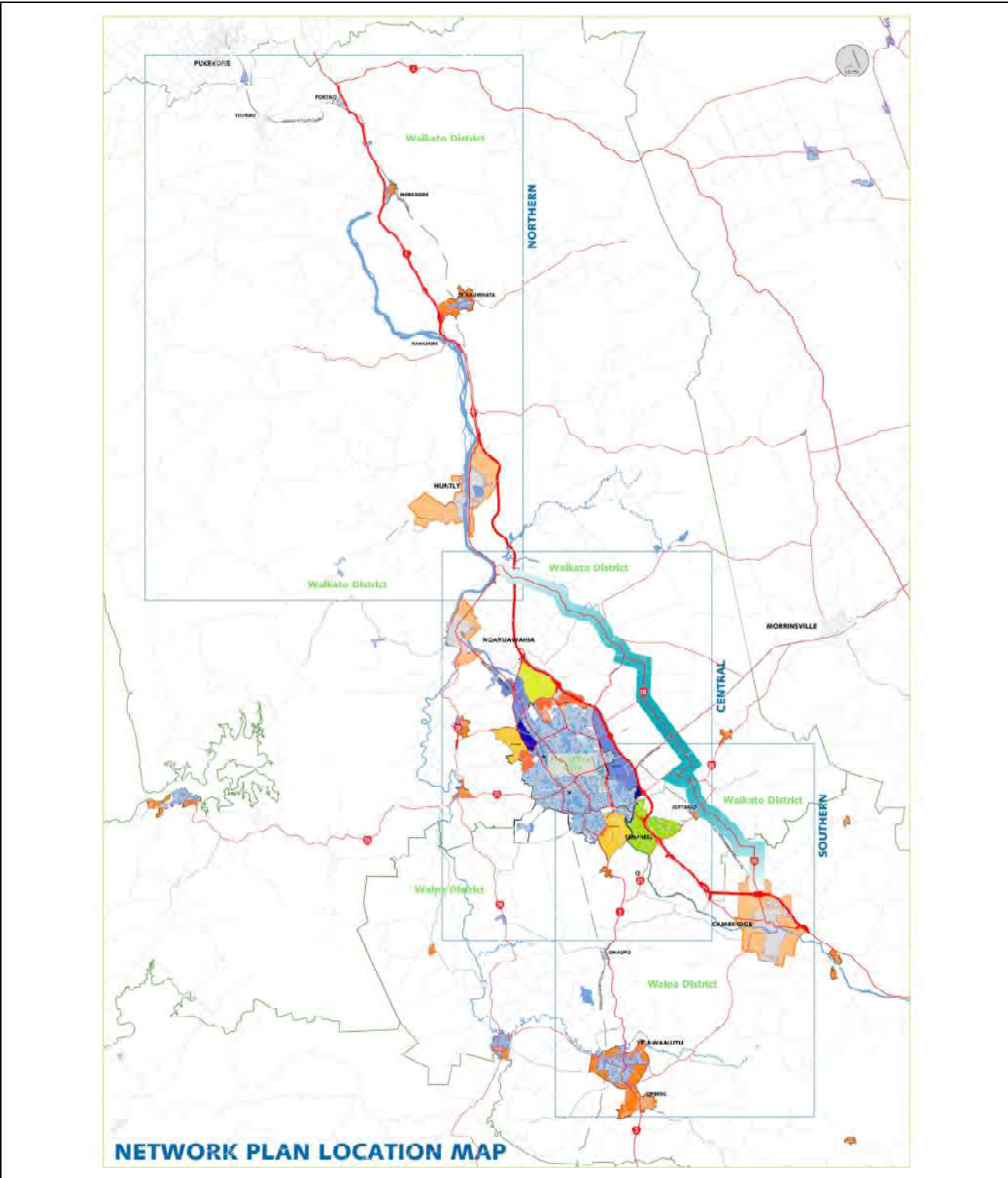
The primary inter-regional transport network focus of the Network Plan is SH1 and SH3, and the rail system comprising the North Island Main Trunk line and East Coast Main Trunk line. The Network Plan does not directly cover issues specific to alternative inter-regional north-south routes (eg SH2 and SH27) or linking inter-regional routes (eg SH29), as these are addressed in other strategies including the National State Highway Strategy and the Regional Land Transport Strategy (RLTS). The intra-regional functions of all key (local) arterials within the Network Plan area, including the above state highways, are however covered.

The Network Plan considers the role of public transport networks and active modes (including walking and cycling) in delivering the Expressway outcomes. Although public transport and active modes have a less direct contribution to the Expressway itself, they function to serve demand for shorter "local" trips particularly in and around urban areas and therefore are potential responses to the Network Plan objectives. Provision and operation of these modes is generally addressed at territorial authority level, through mode-specific strategies and integrated transport strategies such as Access Hamilton, draft Waikato Integrated Land Transport Strategy and Waipa Integrated Transport Strategy (WITS).

There are also walking and cycling components on a number of the state highway sections comprising the Expressway; the challenge here is for the state highway components to integrate effectively with local strategic mode share objectives. In principle, the Transport Agency's focus on state highways is to provide only essential network links for active modes, the preference being to accommodate more vulnerable users away from high speed environments, although it is recognised that state highways in urban areas may have multiple functions. Further detail of the issues and opportunities associated with public transport and active modes related to the Expressway is provided in Part C of the Plan.

¹ "Connecting New Zealand", Ministry of Transport 2011, describes Government policy direction for transport

Figure 1.1: Sector Location Map



1.3 *Network Plan Operation and Implementation*

The Network Plan has been developed, and is being implemented through collaboration and engagement with members of the Future Proof Technical Implementation Group (TIG) and other key stakeholders to progress and prioritise the activities required to optimise the Expressway and associated networks. The key stakeholders include;

- Waikato Regional Council
- Hamilton City Council
- Waikato District Council
- Waipa District Council
- Tangata Whenua
- Kiwirail

The Network Plan provides guidance for these engagement processes by identifying 19 groups of activities requiring actions from the stakeholders and the Transport Agency. Each of these groups of activities addresses a common set of issues/opportunities, identifying both land use and transport activities relevant to these issues. Where possible, groups have been structured to align with packages of work identified within existing strategies and plans.

The individual transport activities within each group have been evaluated in terms of their contribution to the Expressway objectives, and allocated a ranking of 1, 2, 3 or nil, corresponding to High, Medium, Low or no contribution. The evaluation is based on an assessment of the significance of the contribution in a similar way to how “strategic fit” of an issue is assessed following Transport Agency procedures, using road, land use and traffic data and forecasts and criteria such as: economic development and level of service/efficiency criteria and safety criteria. Local Road improvement activities assessed as being critical to realising the benefits of the Expressway will receive a High strategic fit as a result.

The prioritisation of implementation actions around each group of activities has been developed using the Transport Agency’s intervention hierarchy, considering the implementation of low cost measures to address issues before the consideration of significant infrastructure items.

Future updates to the Network Plan will continue to be carried out in consultation with the Future Proof Technical Implementation Group (TIG) and key stakeholders to continue collaboration in progressing the critical issues for the Expressway. To achieve this, an action plan will be developed in conjunction with the TIG to provide focus on the actions required for implementation. This action plan will allow regular monitoring of progress on each group of activities in between further reviews of the document.

Future reviews of the Network Plan will be nominally on an annual basis or longer, unless prompted by significant changes in policy direction or major, unforeseen land use changes.

2.0 Background to the Waikato Expressway

2.1 Purpose of the Expressway

State Highway 1 is New Zealand's principal arterial highway running the length of the North and South Islands. It links the cities of Auckland and Hamilton through to Wellington as well as forming the key north-south section of New Zealand's 'Golden Triangle' (Auckland, Waikato and the Western Bay of Plenty) of population and economic growth, linking the sea ports of Auckland, Tauranga and inland freight hub of Hamilton. It also links the upper North Island to Taranaki, via SH3.

The existing SH1 route is becoming increasingly congested and offers a declining level of service between Auckland and Cambridge with significant traffic delays in urban areas like Huntly, Ngaruawahia, Hamilton and Cambridge. To address the current level of service and safety problems on SH1 in the north Waikato Region, the Transport Agency aims to complete construction of the Waikato Expressway between the Bombay Hills and south of Cambridge.

2.2 Objectives of the Waikato Expressway RoNS Project

Within this context, the objectives of the Waikato Expressway are to:

- Enhance interregional and national economic growth and productivity;
- Improve journey time reliability and relieve congestion through the main urban centres along SH1;
- Improve safety and reduce crashes on regional arterials including SH1;
- Focus freight movement onto SH1 rather than upgrade alternative routes; and
- Provide improved local network operation and opportunities for improved urban design, travel choice and community connectivity within the major urban areas bypassed by the expressway.

These outcomes will be supported by the following benefits, which are expected from investing in the Waikato Expressway:

- A reduction in travel times between Auckland and Cambridge;
- Reduced fuel costs and increased contribution to economic growth;
- Reduced traffic congestion within communities like Huntly, Ngaruawahia and Cambridge;
- Increase the highway's capacity and passing opportunities; and
- Significant reduction in the number of fatal and serious injury crashes.

The seven RoNS are at the highest level in the State Highway Classification hierarchy, due to their high volumes and national strategic functions, and are thus expected to deliver high levels of travel service. The desired target is Level of Service (LoS) B² for rural expressways at the design year,

² Level of Service (LoS) B is broadly defined as 'free flow and drivers still have reasonable ability to select their desired speed and to manoeuvre within the traffic stream.'

which is 20 years from completion (nominally by 2040, assuming all RoNS are completed to Government expectations).

This target LoS is at the higher end of a spectrum range from 'free flowing' (LoS A) to stop/start 'at capacity' (LoS F). Completed sections of the Waikato Expressway are currently operating at or above LoS B. A key issue for the Expressway will be to avoid levels of service that deteriorate over time, for example due to un-managed development, to the point where through traffic reverts to alternative routes through the Waikato region (thereby undermining a key objective for the Expressway).

The Expressway combines several discrete SH1 improvement projects into a integrated network linking economic centres and provides significant local access at controlled points (interchanges) along the Expressway. Many of these Interchanges occur on major local arterials or to existing State Highways, providing strategic regional and local connectivity to optimise the economic growth opportunities that the Expressway offers. There are challenges associated with improving connectivity to Hamilton, including a development proposal of nationally significant scale on the eastern side of the city at Ruakura.

2.3 Local strategic transport objectives

In addition to the overall Waikato Expressway objectives, there are a number of objectives associated with individual sections of the Waikato Expressway, and within more localised transport strategies, that are relevant to the Network Plan.

Several of the objectives set out in Access Hamilton, Waipa Integrated Transport Strategy, and in the draft Waikato District Integrated Land Transport Strategy, are relevant to the Network Plan. It is expected that these local objectives will be of particular relevance in the development of packages identified in the Network Plan, and will be referenced by the parties responsible for developing those packages.

2.4 Implementation of the Waikato Expressway

Expressway Sections

Over the last 10 years the Waikato Expressway has progressed south from the Bombay Hills, with the construction of the Ohinewai section, Pokeno section, Mangatawhiri four-laning (SH1 North of Pokeno), Mercer to Longswamp four-laning and most recently the Te Rapa section. The Waikato Expressway is shown in Figure 2.1.

Figure 2.1: Summary of Waikato Expressway Sections (May 2013)



Expressway Programme

Figure 2.2 below sets out the target programme for the implementation of the remaining Expressway sections.

Section	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20
Long Swamp	Design							Construction			
Rangiriri Section	Design		Enabling		Construction						
Huntly Section			Investigation/Specimen Design				Construction				
Ngaruawahia Section	Design	Construction									
Te Rapa Section	Inv.	Design									
Hamilton Section			Investigation/Specimen Design				Construction				
Tamahere Section			Investigation/Specimen Design		Construction						
Cambridge Section	Design				Construction						

Note: timings are subject to further development of the Waikato RLTP 2015/16-2017/18.

Figure 2.2: Target programme for Expressway projects (as at September 2013)

2.5 Contribution to National Transport Outcomes

Supporting Strategies

The contribution of the Waikato Expressway to national transport outcomes is described in the Waikato Expressway Strategic Evaluation (WESE, 2009), and the Waikato Inter-Regional Transportation Study (WIRTS, 2009). These two strategies are summarised below and further detail on the strategic background for the Expressway is provided in Appendix C.

Waikato Expressway Strategic Evaluation (WESE)

The WESE study assesses the impacts of the full package of Waikato Expressway projects, and also includes a detailed consideration of the economic contribution associated with the Expressway. WESE was developed to provide a strategic framework to support the business case for further development of the Expressway. This was provided within the context of National and Regional economic growth factors and considered land use development trends in and around Hamilton, as well as other major growth centres such as Auckland and Tauranga.

The expected outcome was that the Expressway will:

- Improve international trade by providing quicker and more reliable connections between the Waikato and neighbouring regions to the Ports of Auckland, Port of Tauranga and Auckland International Airport. It will also help to improve the perception overseas visitors have of New Zealand and the tourism experience;

- Reduce business costs, which may allow businesses to trade over a wider area, opening markets up to more competition. Greater competition is likely to result in greater choice, reduced prices and improved service levels; and
- Make the Waikato more attractive to international flows of finance, people and other resources.

Waikato Inter-Regional Transport Study (WIRTS)

The WIRTS Study included an assessment of 14 key inter-regional transport corridors passing through the Waikato Region. Of these, the corridors making the greatest contributions to GPS and Transport Agency outcomes were the “Auckland - Hamilton” corridor, and the “Auckland - Areas south of Waikato” corridor. In essence, this is the SH1 Corridor encompassing the Waikato Expressway.

The WIRTS study drew a number of conclusions relevant to the Network Plan. Since the study was multi-modal, the “corridors” evaluated included consideration of rail, sea freight and public transport/walking and cycling contributions, where these were applicable. Sensitivity testing showed that, for inter-regional trips, the functioning of the corridors was not particularly sensitive to improved public transport options, nor to a substantial increase in the cost of fuel.

It is also worth noting the WIRTS found that of the Waikato’s inter-regional corridors, the Auckland – Hamilton corridor had the greatest potential contribution to public transport, walking and cycling, and accessibility objectives. This is directly relevant to the Waikato Expressway and this Network Plan.

3.0 Overview of the Waikato Region

3.1 Context

This section is intended to provide a brief overview of the key regional challenges and drivers relevant to the Network Plan. The challenge and drivers summarised here are well documented in the strategic planning framework for the sub region and these documents have been used to inform this section.

3.2 Economic Development

Regional Economy

Improvements in economic growth and productivity for the Waikato region have the potential to make a significant contribution to growth of the New Zealand economy. The Waikato, together with the Auckland and Bay of Plenty regions, currently generate 45% of the nation's gross domestic product. By 2025, these three regions are projected to account for half of New Zealand's total economic activity.

The Waikato region is the fourth largest regional economy in New Zealand. Dairy farming is the largest single industry in the region. Forestry, coal and iron sand mining and aggregate production are also key regional industries.

Tourism is also important, with substantial numbers of tourists using the region's roads to access key destinations, including the Waitomo Caves area, the third most visited tourist destination in New Zealand, in addition to the Thames-Coromandel and Rotorua-Taupo areas. Significant numbers of tourists also pass through the region, particularly between Auckland and the Bay of Plenty. Regional growth projections to 2013 indicate higher rates of growth for both domestic (1%) and international (4.2%) visitors than the national averages (0.6% and 3.8% respectively)³.

Around 55% of all national freight originates from the Auckland, Waikato and Bay of Plenty regions³. The tonnage of freight produced by the Waikato region alone is predicted by the study to double by 2031, representing a higher increase than any other region, and exceeding the tonnage produced within the Auckland region. The growth in Waikato-based production is expected to be predominantly within the primary sector. The majority of these products are destined for export via the ports of Auckland and Tauranga, or for consumption outside of the region. There is also a considerable amount of intra-regional freight movement associated with the processing and distribution of these products.

Regional Growth

The Waikato Region has experienced strong population and economic growth in recent years. Between 1995 and 2006 the regional economy grew by 4% per annum, the highest of any region in New Zealand over the same period. Between the 2001 and 2006 Census the Waikato experienced a net migration gain from Auckland. Latest regional population estimates indicate that the Waikato economy has continued to grow at around 1% annually since 2006⁴.

Associated with strong regional growth, the local authorities around Hamilton, (Hamilton City Council, Waikato District Council and Waipa District Council), have identified a number of key areas for growth within their districts. Many of these areas are directly linked to Expressway investment

³ Waikato Regional Land Transport Strategy, 2011-41.

⁴ Statistics New Zealand 2009

and will provide for a range of uses, from heavy industry to the north of Hamilton to service and freight industries near Hamilton airport.

Relationship to Other Regions

Auckland’s position as the largest domestic market for the Waikato Region’s products is vital. Its role as a manufacturing base is very important, and its airport acts as the key conduit in the North Island for domestic and international travellers, as well as high value freight. Auckland’s main seaport handles the most imports by value of any in New Zealand and also handles significant export volumes. The city’s role as the country’s main commercial and financial centre is highly important.

To the east, the Bay of Plenty region complements the Waikato region’s economy, for example in domestic and international tourism and forestry. The Port of Tauranga is New Zealand’s largest export port, and now equals Auckland for imports with the advent of coal imports for the Huntly power station. The port is a vital gateway to export markets for Waikato producers, handling bulk cargos, such as logs, wood pulp and steel, as well as containerised freight. Both the Ports of Auckland and Port of Tauranga have recently made significant investments to increase capacity to allow larger vessels and greater volumes of freight to be handled.

The Upper North Island Freight Story

The Upper North Island Strategic Alliance (UNISA) is a collaborative association of Territorial Authorities from across the upper North Island, including Auckland Council, Northland, Waikato and Bay of Plenty Regional Councils, Whangarei District Council, Hamilton City Council and Tauranga City Council. The top four “first order” issues identified by UNISA are:

- Economic development linkages
- Transport, including rail, roads, freight
- Ports, including inland ports
- Tourism

Through collaboration with Auckland Transport, KiwiRail and the NZ Transport Agency, UNISA has developed an Upper North Island Freight Story, focusing primarily on the freight transport and economic development aspects of the above issues. The story comprises a set of critical issues that are relevant to freight at an upper North Island scale, and is supported by a shared evidence base. Specific network constraints that are directly relevant to this Network Plan include:

Constraint Name	Key Issue (in reducing the cost to do business)
Hamilton Western Corridor	Inter-regional freight travelling through SH 1 through Hamilton encounters delays at Greenwood/ Kahikatea/ Lorne Street and at the Hillcrest and Morrinsville Road Intersections. Will be assisted by completion of the Waikato Expressway (medium term).
SH1 Pokeno to Piarere (SH1/29)	Primary freight route connecting Auckland and Waikato regions to Bay of Plenty and south. Conflicts between freight and local traffic in urban centres along SH1. Also includes HPMV [High Productivity Motor Vehicle] structural constraints.

Table 3.1: Relevant Freight Network Constraints from the Upper North Island Freight Story

3.3 Transport Network

Strategic Network

Transport of people and freight within the Waikato region, and to and from other regions, is critical to sustaining its economic and social well-being. The strategic transport network within the region provides access to markets and international ports in Auckland and the Bay of Plenty. All road and rail-based transport between the Auckland Region and the rest of the country must pass through the Waikato region and as such high importance is placed on the transport corridors which link the region to its neighbours.

The state highway network through the Waikato region is extensive and experiences the highest proportion of heavy commercial vehicle movements in New Zealand at around 20% of total vehicle movements. It is complemented by a rail network that, by New Zealand standards, is heavily used accounting for 27% of national freight through-traffic and 18% of freight to or from the region. Hamilton provides an important road-rail transshipment point, particularly for Fonterra’s products processed in the Waikato and warehoused and loaded onto rail at the Crawford Road inter-modal logistics yard.

Regional Road Safety

Road safety in the Waikato region continues to be a high priority as the region consistently reports some of the highest road related fatalities of any NZ region. In 2012 the road toll was 53 fatalities, approximately 20% of the national total (refer Figure 3.1). The majority of these fatalities occurred on interregional state highways and involved local and interregional traffic. Within the last seven years (2006 to 2012) trend for fatal and serious crashes has remained steady.

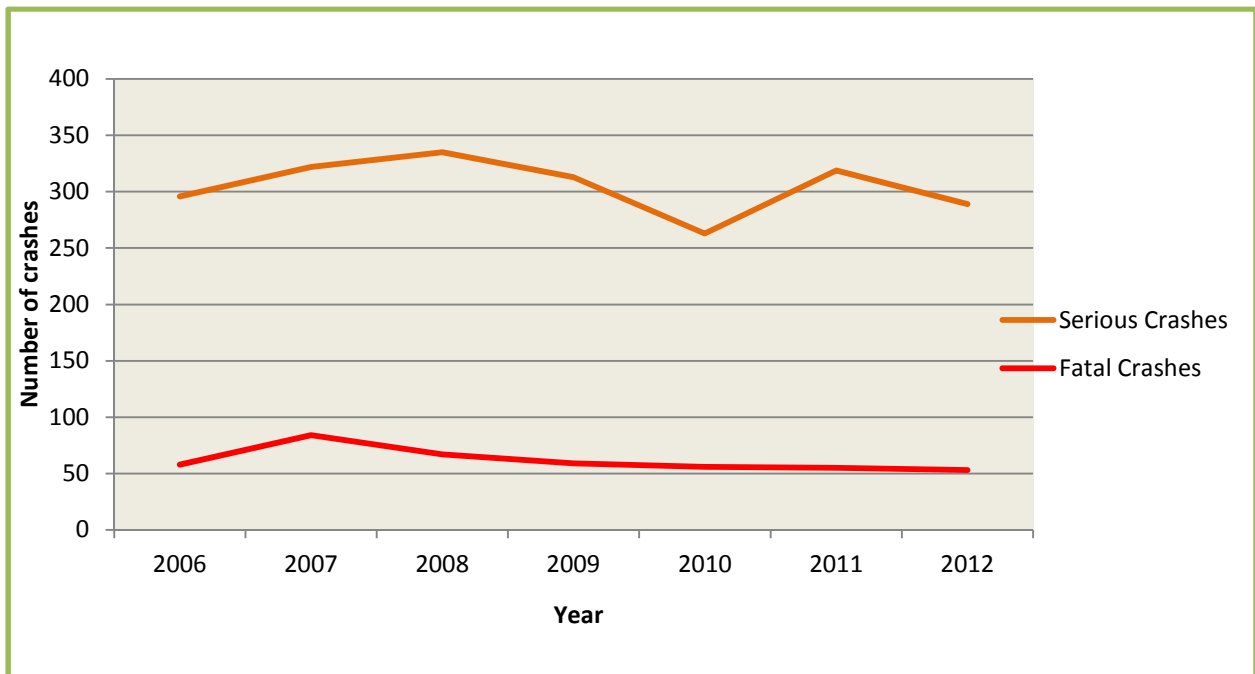


Figure 3.2: Fatal and Serious Crashes in Waikato 2006 to 2012.

Recognising the social cost of road trauma, road safety is high priority in the Regional Land Transport Strategy 2011 to 2041 (RLTS). The improvement of safety an reduction of crashes on regional arterials including SH1 is also a key objective of the Waikato Expressway.

Addressing Regional Road Safety

Implementation of road safety initiatives within the region is guided by the Regional Road Safety Strategy⁵ (RRSS). The Waikato Regional Road Safety Strategy 2013-16 uses the Safe System approach to target the issues of:

- Safe speeds;
- Safe roads and roadsides;
- Safe road use;
- Safe vehicles; and
- Leaderships, collaboration and accountability.

The RRSS supports and is consistent with the New Zealand's road safety strategy "Safer Journeys", adopted in May 2010. Safer Journeys adopts a safe systems approach, which aims to achieve safe roads and roadsides, safe speeds, safe road use and safe vehicles.

For the State Highway network the focus is on the "Safe Roads and Roadsides" component of Safer Journeys with targeting of high risk rural roads and intersections for safety assessment, treatment and monitoring. The Network Plan also focuses on activities that contribute towards creating safe roads and roadsides.

The newest assessment tools are part of KiwiRAP (a partnership between government agencies and the New Zealand Automobile Association) with star ratings being assigned to 5km sections of the rural state highway system. The star ratings range from a low (1-star) for poor safety engineered roads to high (5-star) for very high standard motorway. Within the Waikato Region and this sub-region, most of the highways have a low to moderate rating of either 2-star or 3-star; currently, 38% of annual vehicle kilometres travelled within the Waikato are travelled on 2-star roads, 55% on 3-star and 7% on 4-star.

It is expected that the Expressway will deliver a significant improvement on SH1 to at least 4-star and in some places 5-star rating. This improvement in standard will deliver significant road safety benefits in terms of reduced crashes and severity. In particular the Expressway standard (generally divided 4 laning) will significantly reduce fatal and serious injury head-on crashes.

It is anticipated that further safety improvements will result from the attraction of traffic from lower rated arterials to the Expressway, both through improved safety of the attracted traffic and by reducing traffic on the alternative routes. An example of this is the attraction onto the Expressway of traffic from alternative north-south highway routes, where transport modelling predicts that the volume of traffic (AADT) on SH27 will reduce by approximately 50%, and on SH39 by approximately 30% as a result of traffic diversion onto the completed Expressway. SH1B is also predicted to experience significant reductions in volume which vary along the length of the route.

In the interim and going forward all networks should be subject to assessment in accordance with Safer Journeys, in a priority order aligned with the Safer Journeys Action Plan.

⁵ Regional Road Safety Strategy 2013-2016 – Waikato Regional Council, 2013.

Part B

4.0 Strategic Policy Context

4.1 Overview

The relationship of the Network Plan to national, regional and local strategic policy documents is shown in Figure 4.1. The Network Plan has been conceived to give effect to Expressway objectives set out in the Government Policy Statement on Land Transport Funding (GPS, November 2010). The primary implementation focus of the Network Plan is to guide the development and inclusion of activities/packages that support the Expressway objectives in the National Land Transport Programme (NLTP) and Regional Land Transport Programme (RLTP).

The Network Plan also has linkages to;

- The Regional Land Transport Strategy in terms of identifying and promoting opportunities to optimise investment in the Expressway;
- Long Term Plan development at a district level in terms addressing transport and land use priority actions highlighted for the Expressway within the Plan;
- The development of local and regional transport strategy development to ensure alignment of these strategies with Expressway objectives; and
- The development of Regional Policy Statement, Regional and District Plan policies to promote opportunities to optimise investment in the Expressway and ensure alignment with Expressway objectives.

Network Plan strategy framework

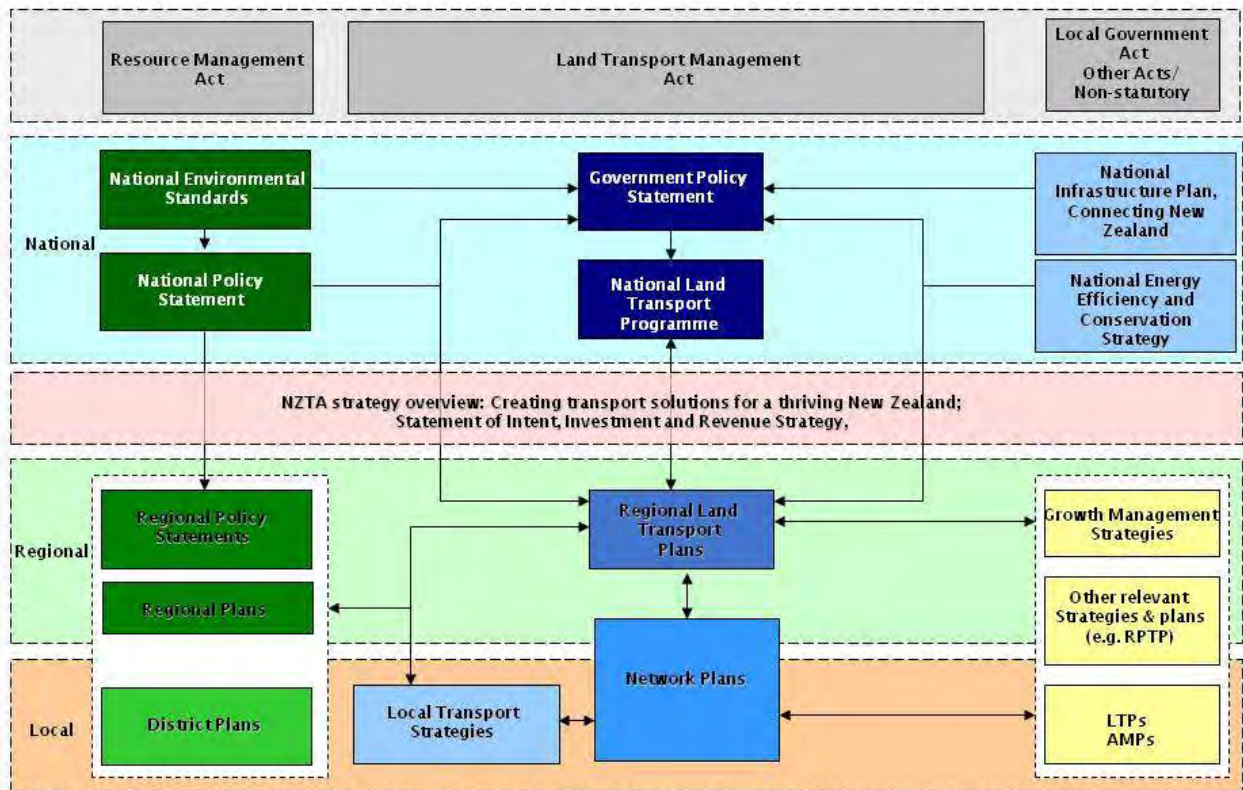


Figure 4.1: Relationship of the Waikato Expressway Network Plan to strategic planning framework.

4.2 National Policy Framework

National Policy Direction

The national policy direction with regard to the Waikato Expressway is set primarily through the objectives of the Land Transport Management Act (LTMA), and the GPS. The GPS identifies the Waikato Expressway as a RoNS to reflect its potential contribution to national transport outcomes, including economic development and productivity, and safety.

The Transport Agency has developed an Investment and Revenue Strategy (IRS) as a prioritisation tool to direct investment into activities that make the greatest contribution to GPS outcomes. Increased priority is given to activities that make the most significant contribution to one or more of the following:

- RoNS and local roads critical to RoNS;
- Key freight and tourism routes;
- Key urban arterials;

- Public transport initiatives to ease severe congestion;
- ‘model’ urban walking and cycling communities;
- Making better use of existing transport infrastructure; and
- Optimising the existing capacity of, and service levels on, highly trafficked roads.

4.3 *Regional Policy Framework*

Overview

Strategic transport and land use planning within the Waikato Region is strongly influenced by its relationship with surrounding regions. The influence of the Auckland and Bay of Plenty Regions is particularly strong, driven by a number of key factors including:

Continuing high rates of growth within the upper North Island compared to elsewhere in New Zealand, linked to a similar level of contribution to New Zealand’s GDP.

- Key transport links to the major ports of Auckland and Tauranga; and
- Amendments to the Auckland Region’s boundaries enacted through the Local Government (Auckland Law Reform) in November 2010, to include parts of Franklin District into Waikato District.

The Auckland Plan provides the 30 year vision and strategy for Auckland. The Plan was launched in May 2012, and outlines spatial planning objectives for Auckland, identifying key growth areas in central and southern Auckland and associated infrastructure requirements. The potential effects of these and other factors in terms of people and businesses relocating from Auckland to the Waikato region are currently not well understood. Implementation of the Network Plan will need to continue to monitor implications for the Expressway and associated networks. The Auckland Plan will be implemented through the Auckland Unitary Plan, which will replace the existing 12 district and regional plans in the greater Auckland area. The Proposed Auckland Unitary Plan was notified on 30 September 2013, with submissions closing on 28 February 2014.

Upper North Island Strategic Alliance (UNISA)

The purpose of the UNISA Agreement is to establish a long-term collaboration between the Auckland Council (AC), Bay of Plenty Regional Council (BPRC), Northland Regional Council (NRC), Waikato Regional Council (WRC), Hamilton City Council (HCC), Tauranga City Council (TCC) and Whangarei District Council (WDC) for responding to and managing a range of inter-regional and inter-metropolitan issues.

Cross-boundary issues are becoming increasingly important. UNISA has identified the ‘first order’ priorities for inter-regional collaboration. The current focus is on:

- economic development linkages;
- transport, including rail, roads, freight;
- ports, including inland ports; and

- tourism.

While UNISA has no statutory decision making authority, it can make recommendations to the seven partners and central government. The current focus on freight has resulted in completion of the Upper North Island Freight Story (the 'Story') released in April 2013. The Story provides a shared evidence base that allows the partners to make decisions together. This approach to collaborating on inter-regional issues will be important in development of the Regional Land Transport Plan and other elements of the regional policy framework.

UNISA seeks to influence decision-making across the Upper North Island to collaborate working towards shared outcomes on inter-regional issues. Joint work, like the Freight Story will help inform changes to the regional policy framework through memoranda of understanding (MOU) or the RLTS.

Regional Land Transport Strategy, 2011 - 2041

The operative Waikato RLTS is based around a regional vision of achieving an affordable, integrated, safe, responsive and sustainable land transport system for the region. This vision is underpinned by a number of priority outcomes identified for the Waikato including:

- An integrated transport system that supports economic activity and provides for the efficient movement of people and goods;
- A transport system that provides safety and security across all modes of travel;
- A people focused transport system that provides inclusive, accessible and affordable multi-modal journeys to enable people to live, work and play;
- A transport system that connects communities, protects active modes and enables positive public health outcomes;
- An environmentally sustainable and energy efficient transport system that is holistic and adaptable, meets regional and local needs, and is resilient to long term global influences; and
- An integrated multi-modal transport system supported by land use planning and enabled by collaborative planning and partnerships.

These transport outcomes are closely aligned to the LTMA objectives and national outcomes for improved economic development and road safety identified in the GPS.

The RLTS approach to meeting these outcomes is based on focussing investment on a defined set of strategic transport corridors, targeting road safety improvements under the safe systems approach (discussed above), and travel demand management and alternative mode interventions based on local needs. This approach is summarised in Figure 4.2.

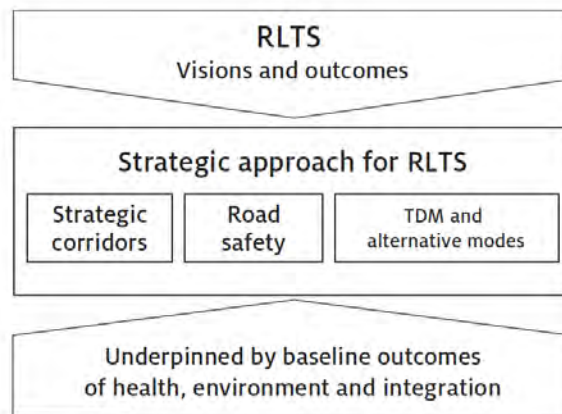


Figure 4.2: Waikato Regional Land Transport Strategy 2011-41 : Strategic Approach

The RLTS uses criteria set for each core area to assess the contribution of strategic corridors around the region, and determine the level of contribution each makes to the region’s strategic outcomes. The Waikato Expressway has been confirmed as the region’s primary strategic corridor.

Section 56 of the Land Transport Management Amendment Act 2013 repealed the requirements for Regional Land Transport Strategies. Section 13 of the Act requires that Regional Land Transport Plans are prepared to set out the region’s land transport objectives, policies and measures for a minimum 10 year period. Regional Land Transport Plans must contribute to the purpose of the Land Transport Management Act 2013 and be consistent with the GPS on Land Transport. Transitional provisions (s156 (4)) allow the existing RLTS to continue in existence until expiration on 30 June 2015 when a Regional Land Transport Plan should be in effect.

Regional Transport Challenges

The RLTS identifies a number of high priority challenges for transport in the region and these are related to the trends set out in Section 3.0 above. The majority of these regional challenges are directly relevant to the Waikato Expressway and the purpose of the Network Plan and include:

- Growth in inter-regional freight and doubling of freight within the Waikato Region;
- Future population growth and demographic change;
- Improving road safety;
- Promoting opportunities to optimise the investment in the Expressway;
- Improving urban design and layout to provide for accessible journeys;
- Progressing energy efficiency initiatives and resilience to security of energy supply in terms of reducing reliance on fossil fuels, and;

The need to integrate planning of urban form, infrastructure and funding. Each of these challenges is discussed below in terms of their relevance to the Expressway.

Growth in inter-regional freight and doubling of freight within the Waikato Region

The National Freight Demand Study (NFDS, 2008) predicts that the freight task for the Waikato region will double over the next 20 years (Figure 4.3). A significant proportion of this increased demand will be inter-regional, highlighting the importance of the Waikato Expressway as an inter-regional corridor. It is noted however that this analysis pre-dates the recent global economic downturn, and should be re-tested to understand how this will affect the trends identified.

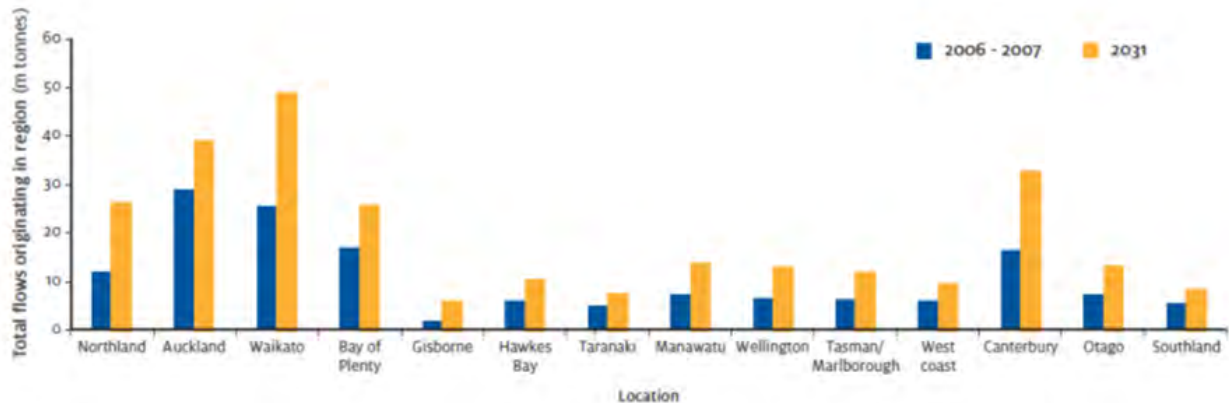


Figure 4.3: Freight flows originating in the Waikato region 2006/07-2031.

On 1 May 2013, the Ministry of Transport announced that two freight studies had been commissioned:

- National Freight Demand Study 2013 – This will update the previous study which reflected the freight sector as it was in 2006/07. It will provide information to enable planning to be informed by more up-to-date forecasts;
- Future Freight Scenarios Study - This study has a focus on ports and will look at some of the choices New Zealand has in responding to changes in international shipping.

At the time of writing, these studies have yet to be completed.

The RLTS also identifies the tendency for freight carrying traffic passing through the region to use alternative routes around Hamilton, for example taking SH1B or SH39 in preference to the urban sections of SH1 to avoid congestion and reduce travel time delays.

The Expressway is being constructed to a standard that will carry High Productivity Motor Vehicles (HPMVs) and therefore is expected to attract HPMV freight. There is also likely to be continuing pressure for establishment of key freight nodes in close proximity to the Expressway.

Future Population Growth and Demographic Change

The Waikato region is projected to experience the country’s third highest population growth between 2006 and 2031 at 16%, after Auckland and Canterbury. The majority of this growth (around 94%) is expected to occur in the Future Proof sub-region. This growth has been associated with rapid land use change prompting the development of growth strategies by several territorial

authorities, including Future Proof, Taupo 2050 (Taupo District Council), Coromandel Blueprint (Thames-Coromandel District Council) and Franklin District Growth Strategy (as adopted by the Waikato District Council following the Auckland boundary changes in December 2010).

In the Future Proof subregion population growth and land use change is projected to lead to increased traffic congestion particularly within Hamilton. This congestion is expected to be partially alleviated following the completion of the Expressway.

There is also a trend for structural ageing of the population and in some areas an increase in the number of people without access to a private motor vehicle, which may result in a greater demand for passenger transport services particularly for access to services.

Initial results from the 2013 census indicate that growth in Hamilton in particular is continuing, although this is at a significantly reduced rate compared to 2001-2006. Similarly, national network trends are indicating overall reductions in vehicle-kilometres travelled (vkt) since 2006/7 and a levelling out of vkt growth for heavy vehicles, although the reasons for this are not fully understood. It is also apparent that some areas of the road network are continuing to experience growth in demand, including areas subject to higher levels of population growth and economic development.

Further work is proposed by the Future Proof partnership to re-evaluate population projections based on the recent census results, prior to a review of the Future Proof strategy.

Improving Regional Road Safety

The 2011-41 RLTS highlights the potential negative impact of the region's projected growth trends on regional road safety outcomes. In this respect it identifies a need to ensure that routes are fit for purpose, including the use of crash risk assessment and classification of roads by functionality to assist in managing this risk.

The sections of the Expressway completed to date have made a significant contribution to road safety outcomes in the Region. For example, since its completion, the reduction in the social cost of crashes on the Pokeno Bypass section of the State Highway has exceeded the entire project cost, with the reduced crashes having an economic benefit to the nation in terms of reduced hospital bills and productive employment hours (refer Figure 4.4). The RLTS anticipates the completed Expressway will result in further safety benefits for the region.

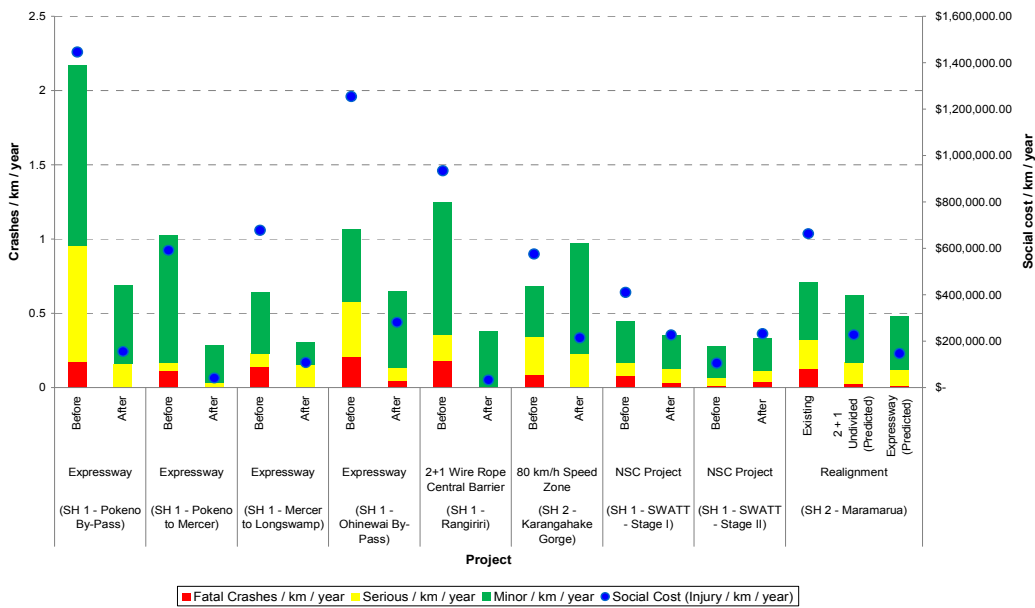


Figure 4.4: Expressway related roading projects showing proportional reduction in crashes.

Promoting Opportunities to optimise investment in the Waikato Expressway

The 2011-41 RLTS recognises the significant investment which the Waikato Expressway represents, and identifies maximising the benefits from this investment, within the available funding envelope, as a significant regional challenge. The Expressway will assist in addressing a number of key challenges for the region and as such the RLTS identifies the route as the highest priority project for the region.

This Network Plan seeks to address this challenge by identifying and summarising the key opportunities for optimising the Expressway and guiding the implementation of these activities to ensure these opportunities are realised.

Improving Urban Design and Layout to Provide for Accessible Journeys

The RLTS identifies a need to provide better choices for people travelling to work through discouraging land use patterns that make it difficult to provide effective transport options for all users including public transport. It is important in planning for accessible journeys that the needs of all users are considered in the planning and design of transport networks.

Accessibility planning can be applied at a wide range of spatial levels, from strategic transport and land use planning, to detailed design of kerbs and public transport vehicles.⁶ In the context of this Network Plan, the emphasis is on the inclusion of accessibility considerations in transport and land use planning, and effective integration of strategic networks with detailed local plans and strategies.

⁶ Accessibility Planning Methods, NZTA Research Report 363, Susan Chapman & Doug Weir, 2008.

Progressing more energy efficient transport modes

The RLTS highlights the need for the region to decrease its reliance on fossil fuels through the promotion more energy efficient transport modes (such as public transport). The Network Plan identifies opportunities for modal shifts where these may be relevant in reducing local private vehicle trips on the Expressway. Implementation activities in reference to public transport initiatives are also summarised and promoted within the Plan.

Integration of urban form, infrastructure and funding

The RLTS identifies moving towards more compact urban forms where development is focussed in and around existing towns as a key challenge for the region. This shift is promoted by all of the growth management strategies for the region, including the strategy of primary relevance to the Network Plan, Future Proof.

At present, regional population density is low contributing to increased reliance on private motor vehicles. Particular challenges in this regard include;

- Growth in rural residential areas exacerbating pressure on existing infrastructure and further infrastructure development; and
- Growth in commuter towns exacerbating pressure on Expressway capacity.

The Network Plan identifies both of the above as issues for the Expressway and details implementation measures to address these.

Regional Road Safety Strategy, 2013 – 2016

The Waikato Regional Road Safety Strategy was adopted in May 2013. The Strategy's vision is 'Working together towards zero deaths and serious injuries on Waikato's roads'.

The region has adopted the safe system approach and seeks to achieve safe roads and roadsides, safe speeds, safe vehicles and safe road use by identifying the policy direction and actions for implementation. To measure progress the Strategy adopted the following targets from the RLTS:

- By 2040 there will be a 50 per cent reduction in road related fatalities compared with the baseline (annual five year average 2004-2008) of 79 deaths. This means that by 2040 there will be no more than 39 deaths per annum in the region.
- By 2040 there will be a 25 per cent reduction in road related serious injuries compared with the baseline (annual five year average 2004-2008) of 299 serious injuries. This means that by 2040 there will be no more than 225 serious injuries per annum in the region.

Regional Policy Statement

The Proposed Regional Policy Statement (RPS) was initially notified by the Waikato Regional Council in November 2010. Regional councils have a specific responsibility to strategically integrate infrastructure with land use through objectives, policies and methods contained within the RPS under section 30(1)(gb) of the Resource Management Act.

The RPS therefore plays a key strategic role in land transport planning as regional and district plans are required to 'give effect' to RPS and the specific high-level objectives and policies within the document influences the policy framework of these plans.

The RPS also influences the direction of RLTS and growth strategies such as Future Proof. At the time of preparation, the RLTS was required to be consistent with a RPS under s75(a)(iii) of the LTMA (prior to the Land Transport Management Amendment Act 2013); and looking forwards, the Regional Land Transport Plan will still need to reflect any RPS or Regional Plans that are in force (LTMA s14(c)(ii)). The development of the RPS is therefore a key consideration for the Network Plan and relevant objectives and policies within the document are outlined below.

Key RPS Objectives and Policies

The RPS includes objectives to promote the integration of land use and infrastructure planning and support regionally significant long term infrastructure such as the Expressway. The policies and implementation methods of most relevance to the Network Plan are contained within the Built Environment chapter of the RPS.

Policy 6.1 promotes the planned and co-ordinated development of the built environment through a range of statutory and non-statutory methods and notably requires the management of the cumulative effects of development through these methods.

Policy 6.3 promotes the management of the built environment to ensure that new development is co-ordinated alongside significant infrastructure investment, to optimise efficiency and affordability and to protect infrastructure investment. This policy also seeks to maintain the efficiency and effective function of key transport infrastructure.

Management of the built environment to protect the effectiveness and efficiency of regionally significant infrastructure, including the Waikato Expressway is promoted in Policy 6.6.

Policies 6.12 to 6.18 support the Future Proof strategic principles (discussed in detail below) and seek to anchor the Future Proof settlement pattern and the key locations across the subregion for employment growth. Section 6C sets out the detailed allocation and staging of residential growth for the subregion by location (Table 6.1) and provides future allocations for strategic industrial nodes (Table 6.2). This section also sets out a hierarchy of the major commercial centres for the subregion (Table 6.3). The locations listed in Table 6.2 for employment growth are shown on each of the sector maps and are relevant to number of the issues identified within the Network Plan as discussed in detail in Part C.

Status

Hearings for the RPS were held in early 2012 with decisions notified in November 2012. Some 37 appeals have been lodged with the Environment Court, however, none of the appeals are expected to have a significant impact on the Network Plan. Until such time as the appeals are resolved and RPS adopted, the strategic land use pattern for the subregion remains uncertain and this is a key risk for the Expressway and associated networks. These risks are discussed in further detail in Part C of the Network Plan.

Waikato Regional Public Transport Plan, 2011 - 2021

WRC has reviewed its Regional Public Transport Plan (RPTP) and the primary purpose of the plan is to detail how WRC intends to give effect to the public transport elements contained within the RLTS

and outline policies and actions to guide the delivery of the public transport system for the Waikato for the next ten years.

Key policies of the Plan include;

- 1 Optimising the existing Hamilton network through changes to some services and the introduction of new ticketing products.
- 2 Co-ordination with Ministry of Education and Waikato District Health Board to provide improved services for rural communities.
- 3 Introduction of services to newly developed areas including consideration of the co-ordination of the staging of new services.
- 4 Collaboration with local authorities to integrate service delivery and infrastructure provision for new and existing services.
- 5 Improved marketing of services.
- 6 Achieving greater farebox recovery within the next 6 years (around 36% of costs are currently (2013) met by fare revenue, under the national average of 50%).
- 7 WRC is currently undertaking a Strategic Network Review (SNR) to review the region's public transport services and determine the optimal form of a future network to meet the needs of the region - taking account of urban and rural land use, population and demographic changes. The SNR is expected to be completed by late 2013 and will be a key technical input for the Waikato Regional PT Plan review which is due to commence in 2014.

4.4 *Sub-Regional and District Strategic Framework*

Section Structure

The following section outlines the sub-regional and district strategic policy framework relevant to the Network Plan and provides:

- 1 A summary of the existing strategies plans and policies relevant to the Network Plan by Authority; and
- 2 A forward view of proposed policy changes and implementation methods proposed relevant to the issues/opportunities and implementation actions discussed in Parts C and D of the Network Plan.

Future Proof


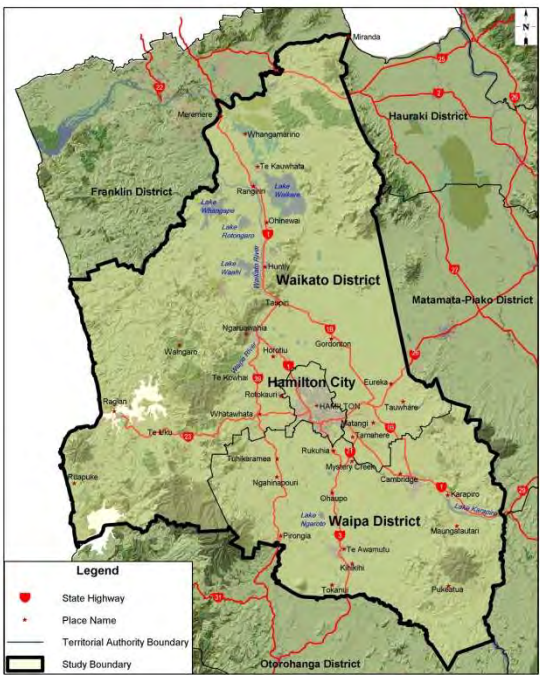
The Future Proof Growth Strategy was developed to assist the sub-region in managing the implications of the high forecasted growth rates in population and economic activity (refer to Section 4.3 for details). Implementation of Future Proof has a strong focus on ensuring that the guiding principles and settlement pattern are reflected appropriately in statutory planning documents. This was completed in the first instance through changes to key planning documents, for example:

- Proposed Regional Policy Statement, notably Chapter 6 which includes Future Proof settlement pattern and key employment locations;
- Proposed Plan Change No. 70 to the Operative Waipa District Plan, notified in January 2010;
- Plan Change No 2 (Variation 16) to the Operative Waikato District Plan to restrict rural subdivision to give effect to Future Proof principles (currently subject to appeals);

- Progressing Structure Plans for Te Kauwhata (Operative as of 7 September 2012) Tamahere (decisions notified 27 April 2013), Tuakau, Gordonton and Matangi in the Waikato District;
- Full reviews of district plans for Hamilton City and Waipa District councils are in progress; these will have a focus on giving effect to the principles and settlement pattern of Future Proof. Further details are provided in the District Summaries below; and
- The Regional Land Transport Strategy which now incorporates relevant aspects of the Future Proof Strategy, including the settlement pattern.

The former Franklin District area that is now included in Waikato District, lies outside of the Future Proof strategy area. Until such time as Future Proof is reviewed to include this area, growth planning for the former Franklin District is managed through the existing Franklin District Growth Strategy.

Table 4.1: Future Proof policy summary and Network Plan considerations.

Future Proof Policy Summary	
<p>Key Strategies:</p> <p>Planning at a sub-regional level is guided by the Future Proof Growth Strategy.</p>	
<p>Growth Management – Future Proof Growth Management Strategy (2009):</p> <p>Status – Adopted by partners</p> <p>Future Proof is the north-western Waikato sub-region’s 50-year growth management strategy. Future Proof was prepared jointly by Waikato District Council, Hamilton City Council, Waipa District Council, Waikato Regional Council and Waikato Tainui (the “Future Proof Partners”) and was formally adopted by the partners in 2009. The Transport Agency is a key stakeholder in the strategy and has provided extensive technical support to the Joint Committee appointed by the partners.</p>	
<p>Population:</p> <p>The Future Proof strategy was drafted in response to the challenges presented by the significant growth pressures projected for the sub-region over the next 50 years. Forecasts anticipate that the sub-regional population will increase from 223,500 to 437,000 between 2006 and 2061 and the majority of this population is expected to occur in Hamilton City, which has a predicted population of 277,000 by 2061.</p>	

Land Use:

Future Proof aims to provide for the majority of growth in existing urban areas, in order to allow for more efficient infrastructure servicing of growth needs. A key feature of this policy direction is the use of urban limits to restrict ad hoc land use development, encourage increased density, provide definition for future urban areas and encourage efficient infrastructure provision.

Tables 3, 4 and 5 of the strategy set out population allocations for identified settlement areas and land allocations for industrial employment growth, including provision for staging of allocations between 2021, 2041 and 2061. The strategy also sets residential density targets for the growth areas to be achieved over time.

Transportation:

Future Proof identifies a number of guiding principles to direct the implementation of the strategy. Transportation principles are contained within the theme of “affordable and sustainable infrastructure” and include:

- Encourage development in existing settlements to support existing infrastructure;
- Protect existing and future infrastructure and transport corridors, including the Waikato Expressway, southern links and rail corridors, from development that could constrain or compromise the efficiency of infrastructure and transport corridor operation;
- Ensure development is planned to support efficient transport infrastructure, including public transport provision and reduced dependence on motor vehicles; and
- Recognise the need for stronger links between land-use and transport in respect of the settlement pattern and ensure capacity is matched with development potential.

In addition the strategy identifies a number of principles that align with the Network Plan approach including:

- The costs of growth are met through funding methods that are fairly apportioned to the costs of development;
- Encourages compact forms of development since these are associated with lower infrastructure costs;
- Capacity should be taken up prior to further investment; and
- Supports a network approach to infrastructure provision.

Strategy Implementation:

The document sets out a number of priority actions to assist with strategy implementation:

- Prepare a change to the operative RPS provide specific guidance on where growth will occur and include the concept of urban limits (including proposed location of business land), and align with the full RPS review (complete);
- Amend the RPS and relevant district plans to direct and restrict ongoing rural sub-division in identified areas (complete);
- Undertake the Southern Sector Study to identify long-term land-use options (complete);
- Identify areas in and around existing towns that are appropriate for rural-residential living; and
- Implement the strategic transport corridors (through RLTP/ RLTS review) (complete).

More recent actions of particular relevance to transport include:

- Establishment of a Technical Implementation Group (TIG) for ongoing input into FutureProof implementation which ensures integration between long term land use planning and transport strategies;

- Ensuring the settlement patterns do not adversely impact the benefits of the Waikato Expressway; and
- Development of an investment database, which catalogues all current and signalled transport projects between the FutureProof partners.

Network Plan Considerations

Land Use and Settlement Pattern:

Effective implementation of the Future Proof settlement pattern is highly relevant to the Network Plan, to enable the meaningful coordination of transport network development with the staged development of strategic land use areas.

Future Proof is seeking to ‘embed’ the settlement pattern and strategic land allocations into the regional planning framework primarily through the revised RPS, RLTS and District Plans. Future Proof has submitted on the RPS requesting changes to the locations and quantum of the industrial land allocations proposed currently. In general the requested changes have been incorporated in the Decisions Version of the RPS.

The Agency will continue to monitor any further changes through the Network Plan implementation to ensure the key objectives of the Expressway and associated networks are not undermined by the land use pattern proposed and that optimisation is achieved.

Transportation:

Future Proof identifies four transport growth corridors, as a tool to assist in integrating transport and land use. This approach is consistent with the strategic corridors identified in the operative RLTS.

While the strategy effectively identifies strategic transport corridors that are of relevance to the management of growth in the sub-region, an outstanding action for Future Proof is the development of integrated transport assessments to allow a fuller understanding of the transport needs for each corridor. These assessments have been completed for Hamilton City (Access Hamilton) and Waipa District Council (Waipa Integrated Transport Strategy). The Waikato District transport strategy (Waikato Integrated Land Transport Strategy) is currently under development and is expected to be adopted by Council in late 2013.. This strategy is relevant to a number critical issues identified within this version of the Plan and is discussed in further detail in Part C.

Implementation Actions:

Transport implementation actions are addressed in the strategy under the theme of affordable and sustainable infrastructure and a number of studies have been progressed by the Future Proof partners to assist with implementation under this theme as follows:


Airport and Adjacent Lands Study

The Airport and Adjacent Lands Study sets out the proposed approach for ensuring that the Hamilton International Airport remains a valuable strategic asset for the region. It provides recommendations on management of adjacent land uses to support this goal and is in line with Future Proof Strategy principles. It seeks to alter the timing of the Hamilton Airport Strategic Industrial Node but not the allocated amounts or locations.

4.5 District Plans and Strategies

Waikato District

Table 4.2: Waikato District Council Policy Summary and Network Plan Considerations

Policy Summary	
	
<p>Long Term Plan (LTP) 2012-2022:</p> <p>Waikato District’s 2012 LTP sets out how transport contributes to the following community outcomes: Accessible Waikato, Sustainable Waikato, Healthy Waikato, Safe Waikato and Thriving Waikato.</p> <p>The following major initiatives are included in the LTP:</p> <ul style="list-style-type: none"> – Revocation of some sections of the state highway because of the construction of the Waikato Expressway means we will gain around 100km of additional sealed roads; – Upgrade of the Tuakau rail platform to extend the passenger rail services from Pukekohe to Tuakau (\$0.5M); – Bridge structure replacements; and – Structure plan works to be funded in conjunction with developers (\$27.5M). 	
<p>Waikato District Plan:</p> <p>Status – The Waikato District Plan is now Operative (5 April 2013). The Plan includes a section covering the parts of the District previously within the Franklin District. This section of the Plan became Operative in 2010 and includes a number of Plan Changes. The District Plan includes provisions for a Road Hierarchy, a Safe and Efficient Land Transport Network, and a requirement for opportunities for walking and cycling and provision for public transport to be integrated with the land transport network. It also includes an objective and policies to avoid the need for a future “urban standard and density” road network not to be compromised by new roads on the Hamilton fringe. This requires that new roads should be located in accordance with an approved urban development structure plan.</p> <p>The Operative Plan is subject to a number of plan changes, Plan Change 2 District Wide Growth and Rural and Coastal Subdivision (subject to appeal), Plan Change 3 Tamahere Structure Plan and Plan Change 5 Vision and Strategy for the Waikato River (Plan Changes 3 and 5 were made operative on 8 July 2013)</p>	
<p>Waikato District Growth Strategy (2009): Status – Adopted by Council.</p> <p>Growth management in Waikato District is guided by Future Proof and the Waikato District Growth Strategy. The growth strategy promotes four distinct areas as the focus for investment and growth for the District:</p> <ul style="list-style-type: none"> – The Northern State Highway 1 Corridor (Meremere, Te Kauwhata, Hampton Downs and Huntly); – The Southern State Highway 1 Corridor (Taupiri, Hopuhopu, Ngaruawahia and Horotiu); – Raglan & West Coast; and – The Hamilton Periphery (Gordonton, Tamahere, Tauwhare, Whatawhata, Eureka, Newstead, Horsham Downs, Matangi and Te Kowhai). 	

The growth strategy identifies requirements for structure plans at:

- Te Kauwhata (completed) and Horotiu North development plan; and
- Te Kowhai (planned) and review of Tamahere SP (in progress).
- Franklin Growth Strategy (August 2007) has been adopted by Council. It is understood that this District Growth Strategy (including population forecasts) is likely to be reviewed to integrate Franklin District Growth Strategy and Waikato District Growth Strategy once Census information is available.

Transportation:

Transportation issues are currently coordinated at a local area level through the development of structure plans, as part of growth strategy implementation. Road Safety and Walking and Cycling are covered by separate district-level strategies. The Waikato Integrated Land Transport Strategy is expected to bring these transportation issues together with an implementation plan.

Network Plan Considerations

LTP:

The 2012-2021 Long Term Plan (LTP) has been adopted by Council the transport programme and associated activities support Network Plan implementation. The Agency will need to continue engagement with WKDC on the development of future LTP's to ensure Expressway activities are appropriately identified for local share.

Waikato District Plan:

Council is in the process of developing structure plans for a number of settlements in the District to embed Future Proof settlement patterns in the District Plan. Environment Court appeals to the Te Kauwhata Structure Plan (Variation 13) were heard in March 2012. Council is waiting for their decision. The development of the Tamahere Structure is relevant to number of issues highlighted within Part C of the Network Plan. The Tamahere Structure Plan (Plan Change 3) was made operative in early July 2013.

Waikato DC has reviewed subdivision and residential development in rural and coastal zones, through Plan Change 2 (formerly Variation 16) - District Wide Growth and Rural and Coastal Subdivision. This is an important activity for the Network Plan as it will assist in limiting the risk of rural residential subdivision creating unanticipated loads on the network at inappropriate locations, as highlighted through the Waikato Expressway Future Land Use Pressures Analysis. Decisions were notified in November 2011 and are subject to appeal.

The Franklin DP has been integrated into the Waikato DP. This will need to be aligned with the Future Proof settlement patterns in a way that is consistent with implementation of the Waikato District Growth Strategy.

Structure Planning:

WKDC have identified requirements going forward to develop Structure Plans for Huntly & Ngaruawahia. The timing of these structure plans needs to be reviewed, to inform joint planning prior to completion of the Ngaruawahia Section (2014) and also to inform design of the Huntly Section (in progress).


Transportation Planning:

A number of the groups identified under this network plan include activities within the Waikato District, including the state highway revocation group (Waikato) and Expressway Connectivity Group (see Chapter 6 for details). To date, however, no clear packages of inter-related activities have been identified in this district.

Development of the district-level integrated transport strategy is underway. This is considered to be a key planning resource for ongoing integration of land use and transport across the district, and specifically for the Waikato Expressway and associated networks.

Hamilton City

Table 4.3: Hamilton City Council Policy Summary and Network Plan Considerations

Policy Summary	
	 Hamilton City Council <small>Te kaunihera o Kirikiriroa</small>
<p>Hamilton’s 2012-22 10-Year Plan</p> <p>Hamilton City’s 10-Year Plan includes the following community outcomes: Prosperous and Innovative, Outstanding City Leadership and People Love Living Here.</p> <p>The 2012 10-Year Plan identifies \$114.6m of transport activities. Key projects identified include:</p> <ul style="list-style-type: none"> – Asset development in parts of Rototuna, Rotokauri and Peacocke growth areas; – Cycling, walking and public transport initiatives; – Complete construction of the Hamilton Ring Road; – Designation of the Peacocke area arterial network; and – Rotokauri designation. <p>An upgrade of the cross-city connector arterial route (\$13.8m) and minor improvements to the Peachgrove and Hukanui intersection (\$4m) are currently identified as unfunded projects.</p>	
<p>Hamilton City District Plan (2012) Status – Proposed</p> <p>District Plan recognises roads, cycleways, pedestrian ways and the river as transportation networks. It includes a statement of integrated management.</p> <p>The Transportation objective is:</p> <p style="padding-left: 40px;">“An integrated multi-modal transport network that meets the transport needs of the City and is:</p> <ul style="list-style-type: none"> ○ Responsive ○ Efficient ○ Affordable ○ Safe ○ Accessible ○ Sustainable” <p>Policies relate to:</p> <ul style="list-style-type: none"> – Land Use Integration; – Transport Network; – Adverse Effects of the Transport Network; – Adverse Effects on the Transport Network; and – Integrated Transport Assessments. 	
<p>Key Strategies</p> <p>Hamilton has a framework of 7 city strategies, covering Hamilton Urban Growth, Transport (Access Hamilton),</p>	

Social Well-being, Arts Agenda, Economic Development, , Active Communities and Environmental Sustainability. Of these, the strategies relating to urban growth and transport have the greatest relevance to the Network Plan.

Growth Management – Hamilton Urban Growth Strategy (April 2010): Status – Adopted by Council

HUGS gives effect to Future Proof at a local level and sets out Council’s spatial vision for Hamilton, identifying growth related issues including: growing population, accommodating future residential and business growth, and staging (where to develop first and why).

HUGS was developed using a strategic options assessment to prioritise areas for growth, including consideration of the affordability and travel demand implications for each option. The development process also included an underlying requirement to minimise the transport impacts of growth, which has been significant in some of the growth area prioritisation decisions.

Key features of the Hamilton Urban Growth Strategy (HUGS) are:

- Accommodating 50% of projected growth through regeneration of existing areas;
- Regeneration focussed around existing nodes, including the CBD and transport hubs;
- Commitments to development of: remainder of Rototuna, and Stage 1 of both Peacocke and Rotokauri (with the remainder of Peacocke prioritised in the longer-term); and
- Enabling development of a high-technology innovation precinct and other employment at Ruakura.

Transportation – Access Hamilton (2010): Status – Adopted by Council; Transport Agency support⁷

Access Hamilton is the City’s integrated transport strategy to guide the development and transport infrastructure planning for Hamilton over a 30 year period. It comprises a high-level summary document, a detailed implementation plan and seven mode-specific action plans.

The strategy identifies and provides an evidence base for the City’s significant transport issues, including:

- Congestion at network constraints, including crossing points over the Waikato River and railway lines;
- An existing east/west imbalance between employment and residential activities;
- Congestion at major intersections, including State highway and local arterials – currently 5 intersections experience severe peak congestion, expected to increase to 27 intersections by 2036;
- Conflict between local traffic movements, access functions and state highway efficiency objectives;
- Uncertainty in arterial infrastructure planning;
- Decentralised development and parking availability, management and standards leading to increased traffic;
- Increasing injury crashes especially at intersections; and
- Balancing the need for and affordability of infrastructure improvements, and the risk of future transport options being compromised by development.

The approach taken in Access Hamilton is consistent with the LTMA objectives, and alternatives and options have been developed using a hierarchy of interventions. The strategic approach uses a balance between managing demand, providing additional infrastructure and accepting a reduced level of service. Activities within the strategy are prioritised according to national, regional and local objectives.

A review of Access Hamilton is likely to be completed within the next year to ensure that it remains current. The scope is expected to include the freight and rail networks and the relationships with the One Network

⁷ NZTA Board paper 10/02/0335 “Support for Hamilton City Council’s Access Hamilton integrated transport strategy”.

(Network Operating Framework) approach.

Hamilton City Council – Network Plan Considerations

10-Year Plan:

The 10-Year Plan (2012-2021) has been adopted by Council. The transport programme and associated activities support Network Plan implementation. The Agency will need to continue engagement with HCC on the development of future 10-Year Plan’s to ensure Expressway activities are appropriately identified for local share. Several activities within the 10-year Plan are identified as unfunded. While there are funding constraints, there is the potential for these activities to contribute to the Waikato Expressway objectives and they should be considered in development of the Network Plan.

Hamilton City Proposed District Plan:

The Proposed District Plan provides an opportunity to ensure that this statutory planning instrument supports the implementation of both Access Hamilton, and the Network Plan. The Transport Agency and HCC are committed to working together to ensure that this opportunity is maximised.

In respect of this Network Plan, it will be important that the Proposed District Plan:

- Gives effect to the Future Proof principles and settlement pattern;
- Enables effective integration of land use and transport;
- Incorporates the requirements identified from development of Access Hamilton; and
- Similarly, it will be important to ensure that the parallel review of the Infrastructure Technical Specifications recognises and supports delivery of the Waikato Expressway objectives.

Structure Planning:

Structure Plans for the Rototuna, Rotokauri and Peacocke growth areas are included within both the Operative and Proposed District Plans with development planned for within Council’s 10-year Plan. Growth in the Ruakura area is provided for through the Ruakura Logistics Zone and the Ruakura Industrial Park Zone. The proposed Ruakura Structure Plan also provides for residential development. Tainui Group Holdings Limited and Chedworth Properties Limited lodged a private plan change request related to the Ruakura Development Proposal with the Environmental Protection Authority on 24 June 2013.

The Agency will continue to engage with HCC and stakeholders on the key issues of the Proposed District Plan and monitor the progress of through the RMA processes.

Access Hamilton:

Access Hamilton has been reviewed to be consistent with the overall strategic framework, and the strategic direction has been supported by the Transport Agency through a Board resolution.

Packages and Groups:

Access Hamilton identifies 9 ‘packages’ of activities aimed at delivering the strategic objectives. Of these, a number include major activities that are associated with the Waikato Expressway. These are:

- Southern Links (NZTA endorsed)⁸
- Wairere Drive (Hamilton Ring Road) (NZTA endorsed)
- Northern Corridor
- Cross-city connector

Southern Links is also recognised as a key package for one of the strategic elements of the Waikato


⁸ NZTA Board Paper 09/12/0307 “Hamilton Southern Links package endorsement and investigation funding”.

Expressway, “State Highway 1 - Hamilton – the Western Connection and Southern Links”⁹. This includes recognising the primary role of SH1 in this corridor as a western connector for access (as opposed to a through function) given that the majority of traffic using that route has a destination in Hamilton.

Southern Links will also assist in determining the settlement pattern of western and southern Hamilton, enabling an integrated approach to development which should reduce the overall need for travel. This conclusion has subsequently been confirmed by modelling carried out for the Hamilton Urban Growth Strategy (HUGS).

Waipa District

Table 4.4: Waipa District Council Policy Summary and Network Plan Considerations

Policy Summary	
	
<p>10-Year Plan 2012-22</p> <p>Waipa District’s 10-Year Plan recognises the contribution of transport to the following community goals:</p> <ul style="list-style-type: none"> – We are focussed on growing our prosperity and financial sustainability, now and in the future, providing an attractive and affordable district to live and do business in; – We preserve, enhance and showcase the unique environmental and cultural heritage, diversity and history of our district; – We empower and engage our communities to determine and contribute to desired outcomes, whilst providing them with opportunity, equality and efficient service; and – We act with conscience and integrity to lead the district in valuing and protecting the members of our organisation and community, enhancing their wellbeing. <p>Key transport projects include:</p> <ul style="list-style-type: none"> – Victoria Boulevard and contribution to the Hautapu Interchange (\$11.8m); – Town Concept Plan implementation in Kihikihi (\$1m), Te Awamutu (\$2.2m) and Cambridge (\$600k); – Shakespeare Street – Tirau Road intersection upgrade (\$770k) – Cambridge Bridge investigations (\$220k); and <p>A range of road and footpath maintenance programmes.</p>	
<p>Proposed Waipa District Plan (April 2013): Status – Proposed, hearings underway</p> <p>Hearings for the Proposed District Plan are underway and are expected to be completed by the end of 2013 however decisions may not be released until early 2014. The key changes within the Proposed District Plan are:</p> <ul style="list-style-type: none"> – The incorporation of the Waipa 2050 growth management directions. – Changes to subdivision standards in the rural area and residential zones. – An increased emphasis on the design of subdivisions and developments. – The addition of significant natural areas. 	

⁹ LTNZ Board paper 07/12/3019 “Waikato Expressway Strategy Assessment”.

- New approaches to protecting key historic buildings and areas in the District.
- A new layout and format.

The transportation objectives are:

- Ensuring sustainable, integrated, safe, efficient and affordable multi-modal land transport systems
- Integrating land use and transport: ensuring a pattern of land uses and a land transport system which is safe, effective and compatible
- Maintaining transport network efficiency
- Provision of vehicle entrances, parking, loading and manoeuvring areas
- Minimising adverse effects of the transport network

Growth Management - Waipa 2050: Status – adopted by Council

Waipa District Council has developed and adopted the Waipa 2050 growth strategy, which forms an informing document for Future Proof. It aims to ensure that Waipa remains a great place to live, work and play well into the future. Review of the Waipa 2050 growth strategy is likely to occur once census data has been received and is dependent on the District Plan appeals.

District Issues:

The district is predominantly rural in nature, with Cambridge and Te Awamutu the main urban centres. The Airport/ Mystery Creek events centre are also recognised as key node for economic development.

District population (2006) approximately 43,000; rising to 73,500 by 2061. Growth in Cambridge from approximate 13,300 (2006) to 25,000 in 2061.

Approach:

Waipa 2050 focuses on consolidating growth around existing nodes. For transport, the following visions are identified:

- Reduced car dependence and promotion of active transport modes such as cycling and walking;
- Development of key arterial networks, specifically the Cambridge Bypass, Te Awamutu Bypass, Southern Links and strengthened connections between Cambridge and Te Awamutu;
- Potential for passenger rail with the capacity for this retained; and

Improved level of bus service between main urban centres and Hamilton; Park and Ride at Cambridge and Te Awamutu connecting to frequent commuter bus services.

Transportation - Waipa Integrated Transport Strategy: Status – adopted by Council

The Waipa Integrated Transport Strategy (WITS) takes the high level settlement patterns defined in Future Proof and Waipa 2050 growth strategies, and aims to improve coordination between transport and land use in Waipa District. This integrated transport strategy has a 30 year view, and has been developed to be consistent with the hierarchy of interventions.

The strategy has the vision of ‘People and freight in Waipa have access to an affordable, integrated, safe, responsive and sustainable transport system that supports community aspirations’.

WITS identifies seven areas of focus; each with associated outcomes and actions. The actions have then been combined into an implementation plan which includes packages of projects that will be further developed for inclusion in the Regional Land Transport Strategy.

The seven areas of focus are:

- Integrated Land Use Planning

- Road Safety
- Network Management
- Freight Transport
- Influencing Travel Choices
- Passenger Transport
- Walking and Cycling
- Council has a Walking and Cycling Strategy and are currently developing an implementation plan to ensure the strategy is integrated with the Waipa Integrated Transport Strategy.

Waipa District –Network Plan Considerations

LTP:

The 2012-2021 Long Term Plan (LTP) has been adopted by Council, the transport programme and associated activities support Network Plan implementation. The Agency will need to continue engagement with Waipa DC on the development of future LTP’s to ensure Expressway activities are appropriately identified for local share.

Waipa District Proposed District Plan:

The Transport Agency is seeking inclusion in the District Plan review of objectives, policies and methods to support implementation of the Network Plan and WITS. This includes:

- Consistency with Future Proof settlement pattern;
- Defined urban limits;
- Clarity over future zoning and land allocation at Hautapu;
- Appropriate consideration of future options for rail;
- Coordination of transport and land use provisions around Hamilton International Airport, including recognition of the airport as a strategic asset for the region, and prioritising the need to accommodate activities that are directly related to the airport (including runway access);
- A roading hierarchy that is consistent with RLTS strategic corridors, and reflects land use as well as road function, for example using “link and place” concepts outlined in NZS 4404 (and supported by appropriate design guidelines); and
- District Plan requirements as indicated in WITS.

Hearings for the Proposed District Plan are underway. The Agency will continue to engage with Waipa DC through submissions, hearings and appeals.

Waipa 2050:

The growth strategy is based on a number of assumptions regarding transport, specifically that:

- The airport will continue to develop and add value to the Waipa economy;
- There will be an increased use of rail for freight, including to/from Cambridge (Hautapu);
- The triangle between Auckland, Hamilton and Tauranga will continue and become increasingly important;
- Investment in arterial roading networks has occurred, including bypasses of Hamilton City, Te Awamutu and Cambridge; Southern links to the north of the District; arterial connection improvements between Cambridge and Te Awamutu; and
- Inter-regional connections are also defined, particularly connection between Taranaki and Bay of Plenty

as it traverses through the District (e.g. south and east of Kihikihi).

Specific growth nodes directly relevant to the Network Plan include:

- Hautapu (industrial) &/or C8 Industrial;
- Cambridge North Residential;
- C1 Mixed use (Racecourse area);
- C2/C3 residential (to north and south of Cambridge Road); and
- Airport / Mystery Creek.

Other areas of relevance to the Network Plan include:

- Future function of SH21; land use around Southern Sector;
- Role of rail in supporting Waikato Expressway objectives;
- Supports economic development; and
- Te Awamutu bypass is beyond the scope of the Network Plan at present. Modelling indicates minimal impact of Expressway on Cambridge – Te Awamutu arterial connections.

Following submissions to the Proposed RPS, Hautapu (96Ha) has been included as a Future Proof Strategic Industrial Node. This is consistent with Waipa 2050.

Development of the Airport node will impact on SH21, including the intersection with SH3. These impacts are being considered along with other proposed developments, including Titanium Park, in part through the Southern Links investigation.

WITS:

Issues and Opportunities:

The strategy identifies a number of key issues including:

- Need for improved coordination and land use planning;
- Conflicts between local and through traffic;
- Commuting;
- Road safety; and
- State highway impacts.

Packages and Groups:

WITS also identifies a number of packages and groups of potential activities, including a “Cambridge Section of the Waikato Expressway” package. The Network Plan has identified a group of activities for the “Cambridge area” that overlaps with the WITS package – further work is required to develop these groups.

NZ Transport Agency Highways & Network Operations (Waikato & Bay of Plenty)

Table 4.5: NZ Transport Agency HNO Policy Summary and Network Plan Considerations

NZ Transport Agency HNO Strategic Summary		Regional Highway Context
		
<p>NZ Transport Agency Statement of Intent (2013 - 2016):</p> <p>The Statement of Intent (Sol) defines the nature & scope of the Transport Agency functions and also identifies several key strategies that the Transport Agency is pursuing in 2013 -2016.</p> <p>The key strategic priorities are:</p> <ul style="list-style-type: none"> - putting customers at the heart of our business; - Making the most of urban network capacity; - moving more freight on fewer trucks; - Safe speeds to reduce deaths and serious injuries; and - efficient road maintenance investment and delivery. - In addition, for HNO there is a goal to “deliver highway solutions for customers, including the following objectives: - grow the resilience of the state highway network - Deliver consistent levels of customer service that meet current expectations and anticipate future demand, and - Plan for and deliver the roads of national significance 		
<p>HNO Directions</p> <p>In July 2013, the HNO directions document was published to provide a link between the Transport Agency strategic approach set out in the Statement of Intent, and more delivery-focused HNO strategies and plans including the 2015-8 SHAMP.</p> <p>HNO Directions sets out how HNO will seek to deliver transport outcomes that are effective, safe and responsible, resilient and efficient, by:</p> <ul style="list-style-type: none"> - Identifying areas of certainty and uncertainty and plan for future demand; - Considering the whole network not just state highways; - Providing clear direction by prioritising investment, and; - Demonstrating value for money. 		
<p>SH Activity Management Plan:</p> <p>The State Highway Activity Management Plan plays three key roles for the Transport Agency:</p>	<p>Regional State Highway Planning</p> <p>Each Transport Agency region has previously developed a Regional Asset Management Plan</p>	

<ul style="list-style-type: none"> - it is a route map showing how we plan, invest and deliver for the future - it links the state highway investment to our wider strategic goals - it is a business case for activities (maintenance, renewals, operations and improvements) required to enable the Transport Agency to deliver its services to customers <p>SHAMP is therefore HNO’s tactical level document to identify and manage the total SH network assets and forecast trends and also needs out at least 10 years.</p> <p>The first SHAMP was developed in 2011, to guide the 2012-15 state highway programme. A second SHAMP is currently being developed, to inform 2015-18 RLTP/ NLTP programming.</p> <p>This is being informed by a number of national strategic business cases that are under development including:</p> <ul style="list-style-type: none"> • Safety – Roads and Roadsides • Freight efficiency / HPMV • Resilience • M&O collaboration <p>HNO also produces a State Highway Plan annually to review capital improvements to the SH System. This SH Plan has an underlying 10 year Forecast, but generally focuses on the current National Land Transport Programme period. For 2011 onwards the SH plan will underpin the SHAMP and will be the annual review of the SHAMP programming for all SH activities.</p>	<p>(RAMP) to underpin the 2012-15 SHAMP. From 2015, the regional activity management view will be captured in the national SHAMP document.</p> <p>A review of the approach to Transport planning and project development in New Zealand has emphasised the need for robust business cases to be developed, and for proposed solutions to be aligned with desired outcomes. Transport Agency HNO is currently adapting its systems and approach to align with the Business Case Approach being promoted by the Agency across the sector. The national strategic cases developed under SHAMP will inform development of strategic cases at regional or local level, as well as regional programming of state highways activities.</p> <p>SH Corridor Plans:</p> <p>Draft corridor plans have been developed as part of the 2012-15 NLTP to progress strategic planning for specific high priority routes, including SH1-SH29 (Auckland to Hamilton -Tauranga), SH1 Piarere to Desert Road Summit and SH2 (Pokeno – Karangahake – Tauranga).</p> <p>A number of these corridor plans are now being progressed as Strategic Cases following the Business Case Approach principles and guidance.</p>
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NZ Transport Agency HNO – Network Plan Considerations

Statement of Intent:

The key strategic priority of planning for and delivering the RoNS is being implemented through delivery of the Waikato Expressway. This Network Plan forms a key document to assist in delivering the Sol objectives in a manner that is effectively integrated with local transport networks.

NSHS/ RSHS:

The National SH Strategy (and/or its replacement) along with Regional State Highway Strategies/Regional Network Plans will play an important role in supporting optimisation of the Waikato Expressway and associated network outcomes. The Network Plan will form a key input to the reviews of these documents.

SH Classification System:

The Transport Agency & Ministry of Transport have developed a State Highway Classification System to help align planning, investment, and operational activities for the network to meet the GPS objectives. This has identified different functions of each state highway in the network, and its use will help focus investment accordingly.

Under the SHCS the Waikato Expressway is identified as a high-volume, national strategic route. Associated state highways include:

- SH1B - Regional Distributor
- SH2 - Regional Strategic
- SH21 - Regional Connector
- SH23 - Regional Connector
- SH26 - Regional Connector
- SH3 - Regional Strategic
- SH39 - Regional Connector

These classifications will inform the desired form and design criteria for each route, and will inform integrated planning decisions around adjoining land uses.

SH Asset Management Plan and SH Plan:

The SHAMP & annual State Highway Plan will together determine Operating, Maintenance, Renewals and Improvement strategies for State highways within the Network Plan for the next 10 years, including the Waikato Expressway.

State Highway Corridor Plans and strategic cases:

Corridor plans for SH1 - 29 and SH2 will identify proposed developments over a 30-year timeframe, to deliver the GPS outcomes and integrate to this Network Plan. In practice, this will mean that the corridor plans use the Network Plan as a key input; once completed they will inform the further development of the Network Plan prior to the next update.

Table 4.6: Taangata Whenua strategic summary and Network Plan considerations

Taangata Whenua Strategic Summary

Taangata Whenua are partners in Future Proof and have been part of the Network Plan development through the Future Proof Transport Reference Group. The Waikato Expressway occurs within the rohe (tribal region) of Waikato-Tainui and Waikato-Tainui, along with relevant marae and hapuu, are involved in many components of the Expressway, from an overall strategic level to involvement in the work within each section.

Taangata Whenua have aspirations around papakaainga (taangata whenua communities and associated facilities) and economic development (e.g. Hamilton CBD, The Base, Ruakura) which potentially impact on or impacted by the Expressway. Taangata Whenua have responsibilities as kaitiaki¹⁰ within their rohe to ensure that the impacts of the Expressway on the environment (air, land and water), waahi tapu (sacred sites), and waahi whakahirahira (sites of significance) are avoided, minimised or mitigated. Taangata Whenua are similarly interested in the social and economic impacts of the Expressway. Treaty Settlement legislation formalises roles, responsibilities and obligations, and informs planning instruments that are relevant to the Expressway project. These are outlined in the table below though specific matters will need to be discussed between taangata whenua and the Transport Agency.

Waikato Raupatu Claims Settlement Act 1995

The 1995 Act and its preceding Deed of Settlement settled part of Te Tiriti o Waitangi claims of Waikato-Tainui with some matters put aside by agreement (such as the Waikato River). Matters contained within the Act and Deed, such as the right of first refusal over Crown lands, may impact on this project. Discussions with Waikato-Tainui will confirm and resolve any such matters.

Waikato-Tainui Raupatu Claims (Waikato River) Settlement Act 2010

The 2010 Act heralded a new regime of co-governance and co-management over the Waikato River and its catchment. The Act and its preceding Deed of Settlement also allows for a range of tools and mechanisms, such as an integrated river management plan, Joint Management Agreements with Councils, Accords with Government Agencies, Environmental Management Plan, and the establishment of the Waikato River Authority as the co-governing body over the Waikato River. The Waikato River Authority is responsible for Te Ture Whaimana o te Awa o Waikato (the Vision and Strategy for the Waikato River).

Whakatupuranga 2050

Whakatupuranga 2050 is the blueprint for cultural, social and economic advancement of Waikato-Tainui to 2050.

Relationship between Waikato-Tainui and the Transport Agency

The relationship between Waikato-Tainui and the Transport Agency is being formalised and will outline how the parties will work together.

Taangata Whenua -Network Plan Considerations

Papakaainga

The Future Proof preferred scenario includes recognition of papakaainga as a major opportunity for taangata whenua community development.

Papakaainga in a modern context may differ from what are considered ‘traditional’ papakaainga (e.g. with a marae, associated facilities and a few houses). Planning around extending or establishing papakaainga has not significantly progressed. However, local and regional roading planning will have an impact on the extent of where papakaainga can establish.

¹⁰ kaitiaki - the role and responsibility of Tāngata Whenua to ensure that the mauri, or vital life essence, of their taonga is healthy and strong, in accordance with their tikanga (traditional sustainable management practises); the ethic of guardianship.

Ecological Impacts

As kaitiaki, taangata whenua will seek to ensure that the impacts of the Expressway on the environment (air, land and water), waahi tapu (sacred sites), waahi whakahirahira (sites of significance) are avoided, minimised or mitigated. Taangata Whenua are similarly interested in the social and economic impacts of the Expressway.

River Co-Governance/Co-Management, Te Ture Whaimana o te Awa o Waikato (Vision and Strategy for the Waikato River)

Te Ture Whaimana is the primary direction setting document for the river with a focus on the restoration and protection of the health and wellbeing of the Waikato River. The Expressway has a number of stream crossings and land use that may impact on the River and needs to be consistent with Te Ture Whaimana. The Waikato River Authority is likely to appoint 50% of the membership of hearing panels that are convened to hear RMA applications for consent.

Whakatupuranga 2050

Whakatupuranga 2050 and associated commercial aspirations impact on the way in which Waikato-Tainui view the benefits, costs, opportunities and threats associated with the Expressway. Specific perspectives differ across the various sections of the Expressway.

Environmental Management Plans, other Plans, Tools and Mechanisms

The Waikato-Tainui Environmental Management Plan is being developed and, along with other Hapuu management documents provide written statements to consolidate Waikato-Tainui values, knowledge and perspectives on natural resources, and environmental management issues.

Right of First Refusal

As the Network Plan is implemented ‘right of first refusal’ and associated matters will need to be considered and resolved between Waikato-Tainui and the Transport Agency.

Tools, Plans, Mechanisms, Relationship Documents

The tools, plans, mechanisms and relationship documents mentioned in this section influence the Expressway and Network Plan in various ways and the Transport Agency will need to work with Waikato-Tainui, within the terms of the Relationship Agreement, to progress matters effectively.

Part C

5.0 Issues and Opportunities

5.1 Approach

Identifying the issues and opportunities associated with integration of the Waikato Expressway with local transport networks and land use patterns is a key objective for the Network Plan.

The identification of issues and opportunities has been undertaken through a range of means, including:

- Reviewing existing and proposed national, regional and district strategies and plans;
- Workshops with key stakeholders (via the Future Proof Transport Reference Group); and
- Individual meetings with Councils.

The identification process has been supported with transport modelling using the Waikato Regional Transport Model to both assess the issues identified and highlight further issues or relevance. While version 1.0 of the Network Plan used transport modelling to help identify the area of influence and issues, further project-specific modelling has informed development of version 2.0, for example the consideration of connectivity for the Hamilton section and the effects of land use pressures at Tamahere and Cambridge. No new traffic modelling has been completed as part of Version 3.0.

A number of the issues and opportunities described in this section relate to the strategic priorities set out in the Transport Agency's Statement of Intent and Investment and Revenue Strategy 2012 - 2015. These priorities are consistent with a number of issues identified as regional challenges in the operative RLTS (2011-41).

5.2 Structure

The issues and opportunities identified within this section are summarised at two levels;

- 1 A strategic level describing the issues, opportunities and risks relevant to the Expressway as a whole or to more than one section of the Expressway; and
- 2 A sector level describing in detail the issues and opportunities identified for the northern, central and southern Expressway sectors.

From the above, the Plan identifies a number of critical (or priority) issues requiring implementation actions before the next Network Plan review which have the potential to adversely impact on delivery of the Waikato Expressway outcomes. These critical issues build on those identified within Version 1.0 and Version 2.0 of the plan.

All of the issues are linked to implementation actions outlined in detail in Part D of the Plan.

5.3 Strategic Level Issues

Future Form and Function of the Strategic Network

The completion of the Waikato Expressway is expected to have a significant effect (both positive and negative) on traffic flows across much of the Waikato Region’s strategic network.

Primary traffic flow impacts are anticipated on sections of the existing State Highway 1 within the urban areas of Rangiriri, Huntly, Ngaruawahia and Cambridge as these settlements are to be bypassed by the completed Expressway. The Expressway is also expected to alter the future function of a number of associated state highways, including SH1B, SH2, SH3, SH21, SH26 and SH39, as traffic becomes redistributed around the network. Table 5.1 below summarises the potential future functions of these routes envisaged in the RLTS as a result of the Expressway completion.

Table 5.1: Summary of future desired functions of regional strategic corridors (from Table 7, 2011-41 RLTS).

Strategic Corridor	Desired Function 1-10years	Desired Function 11-30years
SH1B (including Gordonton Rd)	SH1B functioning as alternative bypass of Hamilton and providing north-south link between urban and rural areas in the east of Hamilton.	SH1B will become a local rural arterial once the Hamilton section of the Waikato Expressway is completed.
State Highway 2, State Highway 27 and State Highway 24 (from State Highway 1/Bombay to State Highway 29)	State highways 2/27/24 functions as an inter and intra-regional freight route and main alternative to State Highway 1 connecting Auckland and Waikato to the Bay of Plenty region via the Kaimai Ranges. Will remain a significant freight route until completion of the Waikato Expressway. Northern section of the route provides access to Coromandel Peninsula (regional tourism area) via Kopu Bridge.	State highways 2/27/24 will continue to function as an important inter and intra-regional route but State Highway 1/State Highway 29 is prioritised as the long term strategic access to and from the Bay of Plenty region (via Waikato Expressway).
State Highway 2 (from State Highway 27) to Tauranga via Karangahake Gorge	Inter-regional freight and tourism route connecting Auckland and the Waikato to the Bay of Plenty region via Karangahake Gorge. State Highway 2 also carries tourism traffic to State Highway 25 and across Kopu Bridge to the Coromandel Peninsula.	The freight function of this route will decline as the State Highway 1/29 route is developed as the long term strategic access route to the Bay of Plenty region. Focus will be on tourism traffic and protection of environmental and amenity values along Karangahake Gorge.

<p>SH 21 (Airport Road)</p>	<p>Sub-regional state highway providing access to Hamilton Airport and Titanium Park. Increasing pressure from commercial and industrial development is expected.</p>	<p>Change in role likely related to implementation of Southern Links.</p>
<p>SH3</p>	<p>State highway, connecting the Waikato and Taranaki regions, important for economic development and tourism. Connects Hamilton with Port of Taranaki and New Plymouth. SH21 is a key link between SH3 and SH1, providing access and mobility within Hamilton. Focus on route security and safety.</p>	<p>State Highway 3 continues to function as key inter-regional corridor between Waikato and Taranaki regions. North of State Highway 21, movement function likely to be provided by southern links. Possible change to focus on public transport and alternative modes. No significant change expected on State Highway 3 from south of State Highway 21.</p>
<p>SH39</p>	<p>Serves as a freight bypass to the west of Hamilton and connecting services centres of Ngaruawahia and Otorohanga. The route is being used to transport dangerous goods (LPG) from Taranaki to Auckland. Significant route safety and security concerns.</p>	<p>Function may change following completion of the Waikato Expressway. Possible realignment to connect with Central Interchange of Te Rapa Section of the Expressway.*</p>
<p>SH26</p>	<p>Connecting regional population centres of Hamilton, Morrinsville, Te Aroha and Paeroa. Provides access for dairy industry and regional tourism areas.</p>	<p>No significant change expected</p>

*Note: SH39A has now been designated along the existing Limmer Road alignment to connect with the Te Rapa section. Refer to Table 5.2 below for further details.

State Highway Revocation: Policy and Guidance

Since version 2.0 of the Network Plan, the Transport Agency has finalised and issued its State Highway Revocation Policy and Guidance, setting out the process to be followed when a section of state highway is no longer required. Where there are changes to the state highway network that create duplicate sections of state highway serving the same function, for example as a result of bypass construction, the Transport Agency should seek to have the state highway status of the existing road revoked. Before making a decision whether to recommend to the Ministry of Transport that state highway status should be revoked, the Transport Agency must consult with stakeholders.

The Transport Agency updated their revocation policy and guidance in August 2012 (refer General Circular No. 12/03). The key aspects of the policy are:

- The establishment of a process for meeting LTMA requirement in terms of consultation and documentation.

- An emphasis on early engagement in order to identify and resolve revocation issues early in the process.
- An emphasis on a strategic, whole of network approach to consider the implications and opportunities arising from revocation.
- The introduction of a “fit for purpose” approach to identifying what the physical condition of the road should be at the time of handover.
- A procedure for determining how revocation cost are to be allocated and when transitional funding arrangements may apply.

It is noted that while the revocation policy requires consideration of revocation issues early in the process, many of the investigation phases for the Expressway sections had been completed or moved into design before this policy was prepared. Hence a number of the Expressway projects have considered revocation issues ‘retrospectively’ and identification of revocation issues has been reactive in many cases.

Future Form and Function of Revoked Sections

Planning is under way to review the status of sections of state highway still to be bypassed and undertake consultation in line with the revocation policy. This includes consideration of the future role of these sections following construction of the Expressway. The work needs to be aligned with the desired local outcomes and vision for bypassed settlements, and should consider any required adjustments to local road networks once detailed designs are prepared.

The Transport Agency are currently consulting with affected Councils to develop detailed form and function statements for the sections of state highway that are to be revoked. These statements are expected to provide greater detail than that set out in the RLTS. There is the potential for these form and function statements to differ slightly from the function envisaged in the RLTS set out above.

The indicative timing for revocation of individual sections of state highways is set out in Table 5.2. In order to encourage use of newly-opened sections of the Expressway, and to achieve the Expressway objectives as early as possible, the Agency expects to revoke duplicated sections at the same time as the new section is declared, and as soon after opening as possible. This is important, for example, to take early opportunities to encourage through traffic away from alternative routes and onto the Expressway, and more fully realise safety and local amenity benefits. Maps showing details of the indicative approach to revocation associated with Waikato Expressway implementation are set out in Appendix H, including staging details of the network at intermediate years 2014 and 2017.

Table 5.2: Indicative programme for State Highway status review.

Expressway Section	SH Section	Revocation Order	Indicative Timeframe	Parties	Key considerations/ focus area
Northern	SH1 Longswamp	-	No declaration or revocation necessary	-	
	SH1 Rangiriri declaration	4	2016	Waikato DC	
	SH1 Huntly declaration & revocation	5	2019/20	Waikato DC	<ul style="list-style-type: none"> Taupiri Link designation will change from SH1b to SH1 on completion of Ngaruawahia Section then to local road on completion of Huntly Section
Central	Te Rapa declaration	1	2013 Priority - Te Rapa section completed	HCC, Waikato DC	<ul style="list-style-type: none"> Declaration process completed November 2013
	SH1 (Te Rapa Road) revocation	1	2013	HCC, Waikato DC	<ul style="list-style-type: none"> Revocation process completed November 2013
	SH1 Ngaruawahia declaration & revocation (Taupiri to Horotiu) SH39 declaration (Limmer Road) & revocation (Ngaruawahia to S of Te Kowhai)	2	2014 (Approach and timing needs to be coordinated for these sections to support appropriate use of Network Hierarchy)	HCC, Waikato DC	<p>Limmer Rd / Te Kowhai Road now declared as SH39A (temporary)</p> <p>On completion of Ngaruawahia Section:</p> <ul style="list-style-type: none"> Declare Ngaruawahia Section SH1 / Revoke existing SH1 (Taupiri to Horotiu) Revoke SH39 N of Limmer Road intersection Change designation of Limmer/ Te Kowhai roads from SH39A to SH39 Cost/scope adjustment for Limmer Rd / Te Kowhai Rd upgrade has been approved; expected completion June 2014 is later than proposed completion date for

Waikato Expressway Network Plan

Expressway Section	SH Section	Revocation Order	Indicative Timeframe	Parties	Key considerations/ focus area
					<p>Ngaruawahia Section.</p> <ul style="list-style-type: none"> Agreement is being sought with WKDC regarding the interim function and management of SH39/ SH1 sections to be revoked following opening of Ngaruawahia section but prior to completion of Huntly Section.
	Hamilton declaration	5	2019/20	HCC, Waikato DC, Waipa DC	<ul style="list-style-type: none"> Agreed macroscope includes section of Ruakura Rd to be declared as Highway (SH26 to Ruakura interchange) Need to consider post-Expressway function of existing SH26 from west of Ruakura Road to Hillcrest Roundabout
	SH1B revocation (Gordonton Rd Interchange to Hautapu Interchange)	5			<ul style="list-style-type: none"> Timing for revocation of this link is dependent on completion of Hamilton Section.
	Southern Links declaration & SH1 (Cobham Drive) revocation (subject to investigation)	6	2030+ (After S Links construction)	HCC, Waikato DC, Waipa DC	<ul style="list-style-type: none"> Declaration/ revocation needs to be determined at a later stage.
Southern	SH1 Cambridge declaration and revocation (including SH1B Victoria Rd south of Hautapu Interchange)	3	2016	Waikato DC, Waipa DC	<ul style="list-style-type: none"> Section of SH1B Victoria Road S of Hautapu Interchange can be revoked ahead of remainder of SH1B Post-Expressway function to be agreed.

For sections where revocation of state highway status is considered appropriate, work is required to develop recommendations to the Secretary for Transport regarding the case for revocation. There is some urgency to complete this work, as the key stakeholders have indicated an expectation that, where revocation is to be recommended, this should be planned and ready for implementation as soon as possible after the “new” section of state highway is opened.

The Network Plan identifies sections of the Expressway where revocation of status is likely to be appropriate in the specific issues and opportunities for each sector detailed below. The roles of these routes need to be reviewed to clarify their anticipated functions before linkages with the Expressway can be optimised, and this work is included in the ‘form and function’ statements referred to above.

SH1B is the most complex of these sections as the route crosses the boundary between Waikato and Waipa districts, and has a close relationship with the Hamilton arterial network particularly via Gordonton Road into the North-east of the city.

Modelling indicates that within Waikato District, post-expressway volumes north of Gordonton Road remain relatively high at around 5,000 vehicles per day (vpd), reducing to 2,000 vpd south of this point. Within Waipa District, the function of SH1B changes significantly at the Victoria Rd interchange with the Cambridge Section, reflecting the change from a predominantly rural northern section to a more urban environment between Hautapu and Cambridge town centre.

Development of the basis of any recommendation for revocation of state highway status for SH1B will therefore require a multi-party approach, including the Transport Agency, Waikato District, Waipa District and Hamilton City councils.

Earlier in 2013 the Transport Agency declared parts of Limmer Road, Te Kowhai Road and Koura Drive as SH39A connecting the Te Rapa Section of the Expressway to SH39 south of Te Kowhai. The current SH39 route (Ngaruawahia Road) north of Te Kowhai to Ngaruawahia will remain as state highway until completion of the Ngaruawahia Section of Expressway. The Transport Agency are investigating and designing improvements to the safety and reliability of Limmer Road and Te Kowhai Road ahead of the opening of the Ngaruawahia Section.

Interchanges and Network Connectivity

The location and form of Expressway interchanges have been determined at macro level for the majority of the Expressway. Through the Hamilton Section and Southern Links projects, the Transport Agency has completed further investigations to optimise connectivity with local road networks at a strategic level near Hamilton, particularly taking into account current and proposed employment and residential developments at Horotiu, Ruakura, Tamahere, Peacocke and around Hamilton International Airport. The preferred connectivity arrangements (interchange form and location) for the Hamilton Section were consulted on at public information days in May 2013.

Location of interchanges and coordination with the local network, as well as with planned growth, needs to avoid generating high numbers of “local”, or short-distance trips on the Expressway in preference to use of the local road network. The greatest potential for this issue is on the Hamilton periphery. The Network Plan identifies the expected “base case” network elements, however for a number of areas this will need to be refined as detailed investigation and design progresses, and as the implementation of Future Proof settlement pattern becomes more refined and reflected in the RPS and district plans. These areas are highlighted in the specific issues and opportunities below.

The effects of the staged construction of the Expressway on connected arterial networks is a strategic issue for the Network Plan. A particular area of concern involves the potential traffic flow impacts on Hamilton City's arterial network resulting from staging and timing of each Expressway section.

Access to Markets

To fully realise the economic benefits from the Expressway, it is critical that connectivity to significant markets and significant areas of economic growth are optimised. The decisions version of the proposed RPS was published in November 2012 and includes the following strategic industrial nodes:

- Rotokauri;
- Ruakura;
- Te Rapa North;
- Horotiu;
- Hamilton Airport;
- Huntly and Rotowaro;
- Hautapu;
- Pokeno; and
- Tuakau.

Table 6-3 of the pRPS identifies the hierarchy of major commercial centres based on economic capacity. The three primary commercial nodes for the region are all situated within Hamilton City and include Hamilton's Central Business District, Te Rapa North (including The Base) and Chartwell. Proposed changes to the Hamilton City Plan as part of its ongoing review include policies, objectives and rules aimed at anchoring this hierarchy of commercial centres.

All of the above nodes are situated within reasonable proximity to the Expressway route and optimising access to these nodes from the Expressway is an important issue for the Network Plan. It is important to note that in this context 'optimising access' may not seek to achieve the same degree of capacity or efficiency at all locations. Optimising means balancing the level of service with cost, demand and effects on the existing network.

Beyond the Future Proof and pRPS strategic nodes, the Network Plan does not address connectivity between the Expressway and localised employment centres in Hamilton as this has been addressed a more local level through Access Hamilton. The focus for the Network Plan is to ensure planning at a key arterial level is coordinated between the state highway network and Access Hamilton implementation.

Integration with Land Use

Achieving coordination between land use planning and provision of infrastructure associated with the Expressway is a key factor to enable the outcomes sought from the RoNS investment to be

realised. Conversely, changes in land use that have not been considered as part of an integrated approach represent a significant risk to those outcomes.

Land use risks have a high potential to reduce the effectiveness of the Expressway in delivering the strategic outcomes. The key land use risks for the Expressway have been identified as follows:

- Sufficient detail within the Future Proof settlement pattern;
- Failure to anchor the Future Proof intent effectively within statutory instruments; and
- Development pressure outside of the agreed settlement pattern, for example through private plan changes.

Future Proof identifies a sub-regional view of the desired settlement pattern from a growth management perspective. However, this settlement pattern is defined at a relatively high level, and is reliant upon further work and other statutory documents to give effect to the intent. For example, Future Proof identifies that by 2061, an additional 5,960 persons will be living in the “Waipa rural”, and 7,400 in the “Waikato rural” areas respectively; the initial assumption was that this population would build in a dispersed fashion relatively evenly across the districts. Work commissioned by Future Proof has indicated that there is a high potential for clustering around the Hamilton periphery in particular.

There is also a significant risk that development outside of the Future Proof pattern could occur where private plan changes challenge the agreed pattern.

Specific land use issues are highlighted at sector level below.

Safety

As identified in Chapter 3, safety continues to be a priority focus for the Waikato region within the RLTS. It is expected that construction of the Waikato Expressway alone will make a significant contribution to regional safety outcomes, by providing a purpose-built road that reduces conflicts through:

- Median barriers;
- Grade separation;
- High geometric standards;
- A safer roadside environment;
- 4-laning (providing safe passing opportunities); and
- Attracting traffic off alternative routes with poorer safety records.

Further safety benefits are potentially achievable through optimising the network to improve safety on associated routes. Removing through traffic from bypassed urban areas including Huntly, Ngaruawahia, Hamilton and Cambridge will reduce conflicts between local and through traffic. Focusing freight movements onto SH1 from alternative routes will further reduce conflicts, particularly between HCVs and other vehicles. It will also facilitate movement of High Productivity

Motor Vehicles (as provided for by 2010 amendments to the Vehicle Dimension and Mass (VDM) land transport rule).

Relationship to Rail

Sub-regionally, the rail network follows a similar corridor to the Waikato Expressway, between Auckland and via Hamilton to just north of Cambridge. The Network Plan needs to consider the potential for rail to support the objectives of the Expressway over the next 30 years, for both freight and passengers.

Rail plays a significant role in the movement of freight, particularly on an inter-regional scale. For example, the Crawford St Freight Village has made a significant impact on the volume of freight carried via rail between the Waikato and Bay of Plenty regions. Access to this facility, which is located on the Hamilton Western Corridor, is therefore a key consideration in optimising the freight task for the corridors between Hamilton-Auckland, and Hamilton-Tauranga.

The WESE also examined the contestability of the freight task between road and rail, and concluded that the opportunities for rail to substantially increase its proportion of the freight market in the Waikato were limited.

Under the Turnaround Plan announced in 2010, Kiwirail has identified a number of physical and operational constraints on the existing rail network that represent barriers to retaining or developing competitive freight opportunities. These include the following:

- A 13km length of single track at Whangamarino north of Huntly;
- A number of older bridges which are associated with speed restrictions; and
- Timeslots approaching Wellington are given priority to passenger services, affecting trip time and reliability for freight.

Kiwirail seeks to address these constraints through a number of measures and on an operational basis, the concept of “premiere” freight services is being introduced; customers will pay a premium for freight services that are then afforded the same priority as passenger services, and higher priority than other freight services.

At the same time, a number of bridge replacements are proposed to address line speed restrictions; where appropriate these are being combined with adjacent opportunities for line straightening and further speed improvements. The objective is to reduce the time for freight travel from Auckland to Wellington by at least 2 hours, and improve travel time reliability.

Further opportunities are also being sought by Kiwirail to optimise freight transfer handling opportunities; this includes looking for new opportunities for access to freight transfer areas. For modal transfer and distribution sites to work effectively, they are reliant on efficient links to arterial road networks with an appropriate level of service.

The focus of the turnaround plan is on freight, since this represents more than 75% of Kiwirail’s revenue. However, the investment in infrastructure will assist in keeping options for passenger rail open for the future, should they become feasible. Waikato Regional Council has recently committed to further investigation of options for a passenger rail proposal between Auckland and Hamilton. The potential for such a service to contribute to the objectives of the Waikato Expressway is

considered to be low at this time, since this would attract long-distance trips and not contribute significantly to easing congestion in the urban areas bypassed by the Expressway.

5.4 *Strategic opportunities*

Enhancing Urban Amenity

As noted above the completion of the Waikato Expressway will bypass a number of urban areas, including Rangiriri, Huntly, Ngaruawahia and Cambridge. The removal of significant volumes of through traffic from these towns provides a number of opportunities to enhance community outcomes, urban design and amenity.

The district level growth strategies that underpin Future Proof already articulate expectations that the anticipated reduction in through traffic will provide opportunities for improving amenity levels and revitalising towns, and these expectations are reflected in the settlement pattern set out in Future Proof, particularly with regard to the residential growth allocations. However, little work has been done to date to review community visions for the 'post-Expressway' scenario. Further work is required to understand community aspirations in these areas before transport outcomes can be clarified. Priority in doing this work should be given to those areas that will be bypassed soonest, including; Cambridge; Rangiriri; Ngaruawahia and Huntly.

Although Hamilton will also be bypassed, it is envisaged that this will have less effect in terms of the volumes of through traffic that are attracted onto the Expressway when compared to the city's network as a whole. Also, transport planning for Hamilton has been advanced significantly by the Access Hamilton strategy, which already anticipates the completion of the Waikato Expressway.

Alignment of Statutory and Strategic Policies to Support Optimisation of the Waikato Expressway

The Future Proof sub-region is approaching a stage where several strategies and policy instruments are aligning towards a consistent set of outcomes relevant to the Waikato Expressway. These include the pRPS, RLTS and the Future Proof growth strategy (including related district level strategies as implemented through the pRPS and RLTS).

The Future Proof settlement pattern has a degree of statutory recognition through the Decisions Version of the pRPS published in November 2012. Future Proof has been developed using principles that are consistent with the objectives of the Waikato Expressway. The successful adoption of these principles and the settlement pattern into the pRPS provides a high degree of statutory support. Future Proof will also be implemented through the district plans of the partner councils, in line with the pRPS.

The Future Proof Strategy and the supporting pRPS policies and methods have also been given effect to in the Waikato RLTS. These policies will guide development of the Regional Land Transport Plan (that will replace the operative RLTS) to ensure alignment between land use, transport projects, timing and funding to encourage optimisation.

In order to achieve effective implementation, this Network Plan requires that funding availability is coordinated across all sources, including the NLTP, LTPs and third parties. Management of this risk will be through the Network Plan funding plan. Key to understanding these risks will be an understanding of the time frame in which activities are likely to be required.

The greatest risks in this area are activities that are currently not funded in at least one of their anticipated funding sources. The level of risk is also linked to the degree to which an activity contributes to optimisation of the Expressway. Table 7.3 gives a summary of associated activities which currently have no funding source identified.

Contribution of Demand Management to the Effectiveness of the Waikato Expressway

There are a number of ways in which demand management can assist in contributing to the outcomes of the Waikato Expressway. The operative RLTS (2011-41) identifies regional measures that include the development of land use planning tools that reduce travel demand and provide for a range of alternative modes, and encourage the development of freight facilities in areas that have access to strategic road and rail corridors; investment is then focussed towards the strategic corridors, rather than distributed across the roading network.

There are walking and cycling strategies for each district and for the region. Development of the Expressway and associated activities will be coordinated with these strategies and their associated implementation plans. In addition, opportunities will be created in bypassed urban centres for greater use of active modes and more effective public transport networks.

Planning for the provision of walking, cycling and public transport within the sub-region had not explicitly recognised the effects of implementing the Waikato Expressway prior to the release of the GPS in 2009. While it is now possible to identify that alternative modes will contribute to Expressway outcomes, particularly in bypassed urban areas, further work is required to determine the degree to which these modes can contribute to an optimised network.

Public Transport Planning

Waikato Regional Council is required to publish a Regional Public Transport Plan (RPTP). The Waikato RPTP is reviewed 3-yearly, and includes a review of the public transport network. Future network reviews need to give consideration to the effect of the completion of the Expressway to ensure that a high level of accessibility is maintained. This includes both the urban PT networks and the inter-regional commercial services which provide an essential link between the many rural settlements.

In 2012 WRC commenced a Strategic Network Review (SNR). The objective is to review the public transport services of the Waikato region and determine the optimal form of a future network to meet the needs of the region taking account of urban and rural land use, population and demographic changes. This review is expected to be completed in late-2013. The SNR will inform development of the RPTP due to commence in 2014.

Ongoing public transport planning will give consideration to new opportunities for routes that will require advance planning to reflect the completion of the Expressway, together with the growth planning under Future Proof. Public transport is identified as a potential strategic response to a number of specific issues identified in the Network Plan, which will require further development by stakeholders.

Sector Level Issues

5.5 Northern Sector (Bombay Hills to Gordonton Road Interchange)

Description

The Northern sector extends from the commencement of the Waikato Expressway at the Bombay Hills to the interchange of Gordonton Road near Taupiri. This sector is situated within the Waikato District and is predominantly rural in nature, and bypasses a number of rural towns and villages.

A significant number of the Waikato Expressway components are already constructed within this sector, including Bombay to Hampton Downs and Ohinewai sections and the Taupiri Link. The remaining components are Longswamp; Rangiriri (construction commenced March 2013); Huntly and the northern end of Ngaruawahia section.

Figure 5.1: Northern Sector illustrates the extent of the Northern Sector and notes the issues and opportunities within the sector relevant to the Network Plan. Where possible, issues have been given a locational reference. A detailed description of each issue/opportunity, the actions required to address each issue and the lead and support agencies to implement these actions is outlined in Table 5.3. Within this table issues are described north to south. The critical issues for the sector requiring actions within the next Network Plan period are discussed below.

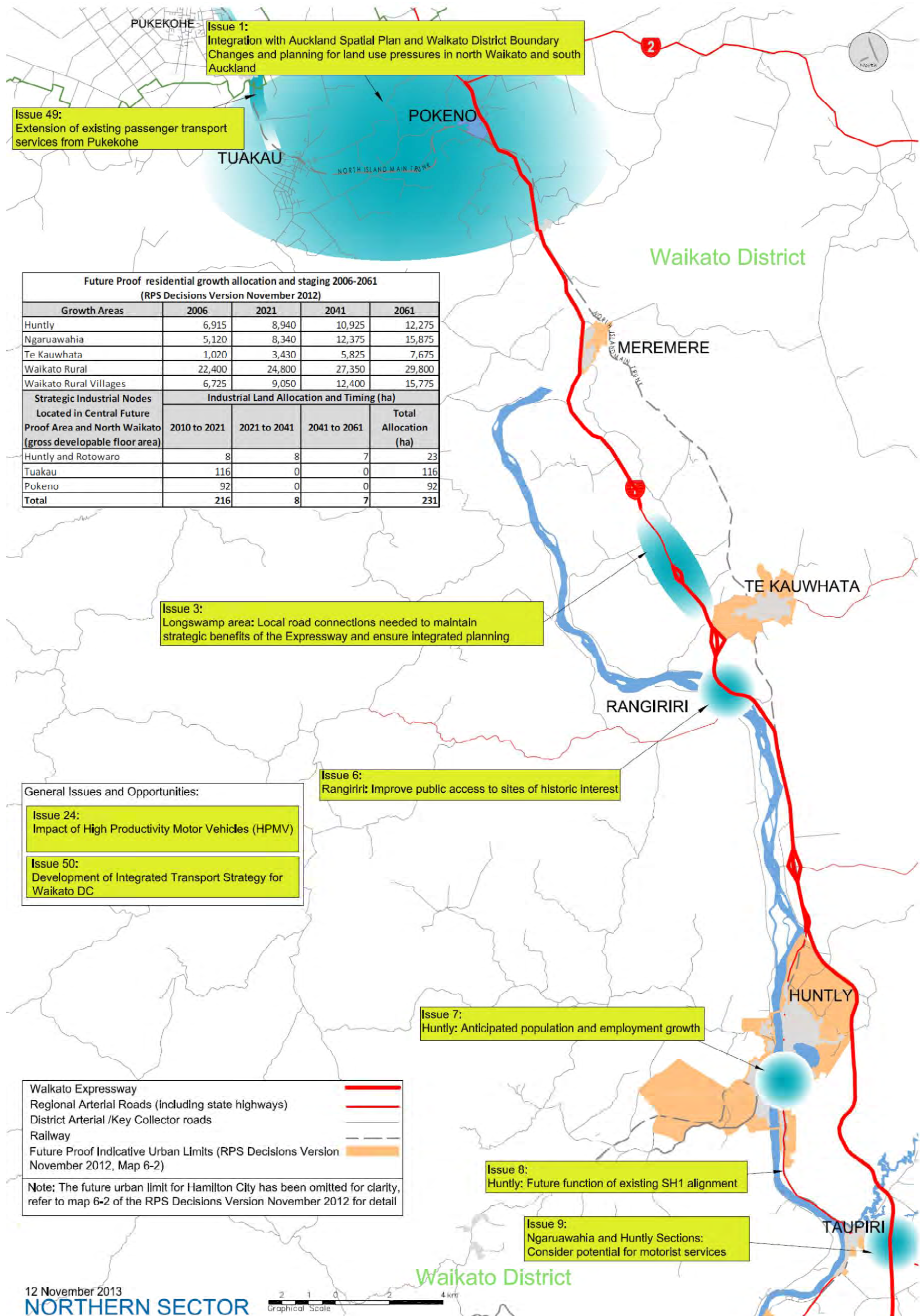
Critical Issues – Northern Sector

The critical issues identified specifically for the Northern Sector are:

- 1 Integration with Auckland Spatial Plan and Waikato District Boundary changes and planning for land use pressures in north Waikato

This issue require implementation actions from lead and support agencies before the next Network Plan review as they have the potential to delay progress on critical components of the Expressway.

Figure 5.1: Northern Sector



Specific Issues – Northern Sector

Table 5.3: Northern Sector Issues

Issue	Problem Description	Description	Actions required	Lead Agencies (Partner Agencies)
<p>Issue 1:</p> <p>Integration with Auckland Spatial Plan and Waikato District Boundary changes and planning for land use pressures in north Waikato and south Auckland.</p>	<p>Increased demand due to projected population and economic growth to the south of Auckland will cause a reduction in efficiency and safety of transport networks in the Northern Waikato District including the Waikato Expressway and Southern Motorway.</p>	<p>Boundary changes to the Waikato District are now complete and the expanded District includes the settlements of Pokeno and Tuakau. Both settlements are situated in close proximity to the Auckland Region and have well advanced structure plans that propose significant employment and residential growth. These structure plans are being integrated into existing WKDC planning documents.</p> <p>Currently, while the parts of the former Franklin District have been included in the Future Proof strategy area, there has been no comprehensive, integrated planning developed other than the original Franklin District growth strategy. The assumptions underpinning this older strategy have been superseded by development of the Auckland Unitary Plan (now notified),</p> <p>The Auckland Unitary Plan signals potential for significant urban development including an additional 55,000 households to be located in southern Auckland which will have flow on effects for the northern extents of the Waikato District.</p> <p>The Auckland Unitary Plan is now being consulted on, hence actual settlement patterns are unresolved and the impacts on transport in general and the Expressway specifically are not yet fully understood. There is likely to be significant increase in demand for the network generally including the southern motorway and an increase in</p>	<p>There is a need for WKDC to advance spatial planning for the north Waikato in light of progress made on the Auckland Spatial Plan. This planning is needed to confirm the optimal future land use pattern for the area and should take into account how this will impact the Expressway and its associated network, and how these impacts can be minimised or managed through integrated planning.</p> <p>WKDC, WRC and Future Proof to engage with Auckland Region to integrate the wider area Auckland aspirations and identify gaps.</p> <p>NZTA to engage with WKDC and WRC on spatial planning processes.</p> <p>WRC, AC and AT have entered into an agreement in principle to undertake inter-regional modelling to better understand the likely transport impacts (including cross boundary effects) of the proposed land use patterns (including staging) once these have been confirmed in the draft Unitary Plan.</p>	<p>Waikato DC (WRC, NZTA, Future Proof, Waikato-Tainui)</p>

Issue	Problem Description	Description	Actions required	Lead Agencies (Partner Agencies)
		<p>volumes of traffic using connections to the Expressway.</p>	<p>NZTA to work collaboratively to understand how investment in the Waikato Expressway and the Southern Motorway will be affected by adverse effects that may result from poorly integrated development.</p>	
<p>Issue 3: Longswamp area: Local road connections needed to maintain strategic benefits of the Expressway and ensure integrated planning.</p>	<p>Use of SH1 for short trips by local traffic will increase due to growth in adjacent settlements, causing a reduction in the efficiency of the new Waikato Expressway.</p>	<p>Connectivity between developing centres of employment (Hampton Downs) and residence (Te Kauwhata, Rangiriri, Pokeno) are currently dependent on the Expressway, with the potential for significant use of State highway for “local” trips. Te Kauwhata Structure Plan identifies this as the main servicing centre for the Northern SH1 corridor.</p>	<p>Waikato DC Growth strategy recognizes a need to provide appropriate local road links to preserve Expressway benefits and allows for this to be considered. Location of employment areas additional to Te Kauwhata requires further work. This must include consideration of providing appropriate local transport links. A local road parallel to SH1 between Te Kauwhata and Hampton Downs interchange may be a potential solution. The scale of this issue needs defining in terms of total vs. local trip volumes. Likely to be a longer term issue.</p>	<p>Waikato DC (NZTA)</p>
<p>Issue 7: Huntly: Anticipated population and employment</p>	<p>Forecast population and employment growth in Huntly has the potential to increase</p>	<p>Future Proof defines urban limits for Huntly based on population and employment growth. No detailed structure plan exists. Structure planning needs to be integrated and identify triggers for any infrastructure</p>	<p>Structure Plan for Huntly to be developed in line with urban limits/ principles defined in Future Proof. Due to</p>	<p>Waikato DC (NZTA, WRC, Waikato-Tainui, Future Proof)</p>

Issue	Problem Description	Description	Actions required	Lead Agencies (Partner Agencies)
growth	congestion and access issues on the surrounding local road network and risks undermining investment in the Waikato Expressway	<p>improvements that are required. Historical data shows a reduction in population and economic indicators. Population projections should be confirmed through the structure planning process.</p> <p>If population and employment growth are not balanced there is a risk that Huntly will become a satellite commuter town for Auckland or Hamilton. Timing and rate of growth needs to be monitored to understand the impacts of potentially increasing local trips on the Waikato Expressway.</p> <p>Population and employment growth combined with state highway revocation may lead to opportunities for amenity improvements and economic growth with Huntly.</p>	commence 2016.	
<p>Issue 8: Huntly: Future function of existing SH1 alignment</p>	The function of the existing SH1 alignment through Huntly will change significantly on completion of the Huntly Section of the Expressway, and its status as a state highway is expected to be revoked. This is expected to cause a change in function which may be inconsistent with current form.	Need to consider issues re. revocation of SH1 and community outcomes desired post-Expressway.	<p>NZTA revocation policy has been adopted. (NZTA General Circular No 12/03)</p> <p>Future form and function statements are being developed by NZTA/WKDC. This issue also applies to WILTS strategy. (currently in development)</p>	NZTA (Waikato DC)
<p>Issue 9: Ngaruawahia</p>	Lack of a coordinated approach to	Drivers for determining optimum locations for Service facilities are typically beyond the scope of the	Principles of existing strategies e.g. Regional stock truck	NZTA (Waikato DC)

Issue	Problem Description	Description	Actions required	Lead Agencies (Partner Agencies)
and Huntly Sections - Consider potential for motorist services.	provision of motorist services along expressway will prevent safety and efficiency benefits of Expressway from being fully realised.	Expressway projects, although they are likely to be related to the desired outcomes. There are a number of proposals for potential motorist service centres, however there is no overarching guidance to assist developers, NZTA or stakeholders in making coordinated decisions that support Expressway objectives. Clarity is needed in the form of a decision-making framework that identifies the circumstances that would make locations suitable or unsuitable from an Expressway perspective. Individual proposals would need to consider this guidance before seeking an Agency response	effluent strategy need to be followed. NZTA principles regarding location of motorist service centres to be applied to individual requests. (2008 Transit NZ Policy to be reviewed and updated if required)	
Issue 49: Extension of existing passenger transport services from Pukekohe	Projected population and economic growth in the northern Waikato area will cause a reduction in efficiency and safety of transport networks in the Northern Waikato District including the Waikato Expressway and Southern Motorway. One response is to further develop alternative modes such as rail.	<p>The southern terminus for the current passenger rail from Auckland is Pukekohe. Structure planning for Franklin District identified the potential to extend services to Pokeno and Tuakau as a direct transport link to Auckland.</p> <p>Other options include local buses from these settlements connecting to Pukekohe rail services.</p> <p>This opportunity will be reviewed following clarification of Issue 1; it may be more appropriate as a strategic response to be explored to address growth-related issues in S Auckland/ North Waikato.</p> <p>Implementation is contingent on Auckland Transport's decision regarding electrification from Papakura to Pukekohe (a decision is expected in late-2013).</p>	<p>WKDC to engage with WRC and Kiwirail on feasibility, which will be influenced by the proposed extension of electrification to Pukekohe; a decision is awaited on this.</p> <p>WKDC to advance planning for further consideration of passenger transport options for north Waikato area in conjunction with NZTA considerations such reducing local trips on the Expressway.</p>	Waikato DC (WRC, KiwiRail)
Issue 50: Development of	Without integrated planning of land	Waikato DC are developing their integrated land transport strategy (WILTS). The draft	Waikato DC and NZTA to continuing working together to address	Waikato DC

Issue	Problem Description	Description	Actions required	Lead Agencies (Partner Agencies)
Integrated Transport Strategy for Waikato DC	use and transport activities, opportunities for a coordinated approach to delivery of Council's transport objectives may not be realised resulting in a less effective transport network.	<p>strategy sets out the future transport environment for the district, transport issues and opportunities and how these are likely to be addressed. The strategy needs to take into account the parts of the Franklin District recently included in the Waikato District and be responsive to the needs of the District Growth Strategy.</p> <p>NZTA is a key investment partner. Support from the Transport Agency is necessary to ensure that the investment approach is consistent with the GPS and the Transport Agency's Investment and Revenue Strategy.</p>	any outstanding issues prior to seeking that this strategy is adopted by Council and supported by the Transport Agency.	

5.6 Central Sector (Gordonton Rd Intersection to Tamahere)

Description

Beginning at Taupiri in Waikato District and extending to the Tamahere Interchange south of Hamilton, this sector encompasses the majority of the urban areas affected by the Expressway, including Ngaruawahia and Hamilton. The sector also has a strong interaction with Cambridge to the south as a key commuter settlement for Hamilton.

The sections of the Expressway are generally less advanced within this sector, with the exception of the Te Rapa (complete) and Ngaruawahia (currently under construction) Sections. The secondary investigation and specimen design phase for the Hamilton Section is in progress.

The Southern Links project is included within the Central sector and its relationship to the Expressway is described as follows.

At its December 2007 meeting, the Land Transport NZ Board considered the assessment of Transit NZ's Waikato Expressway Strategy (Board paper 07/12/3019). The assessment identified six strategic elements, one of which was "State Highway 1 - Hamilton - the Western Connection and Southern Links".

The assessment noted that the most appropriate role of the state highway is as a western connector for access, as opposed to a through function, given that the majority of traffic using that route has a destination in Hamilton, and noted that the Western Connection and Southern Links should be progressed as soon as possible.

It was also noted that Southern Links would assist in determining the settlement pattern of western and southern Hamilton, enabling an integrated approach to development which should reduce the

need for travel. This conclusion has subsequently been supported by further modelling carried out in the development of the Hamilton Urban Growth Strategy (HUGS).

At the time of assessment, only the state highway components of the Western Connection and Southern Links network were considered, comprising:

- Avalon Drive 4-laning;
- Avalon Drive Bypass; and
- The Southern Links state highway component.

Our assessment of the proposed strategic element then was High seriousness and urgency, High effectiveness and Low efficiency. The LTNZ Board resolution gave support to the strategic option of improving Hamilton's State Highway 1 Western Connection and the Southern Links to the state highways to the south of Hamilton, to a standard "that is affordable and takes account of local community needs".

At its April 2009 meeting, the Transport Agency Board considered a paper relating to the Waikato Expressway RoNS and supported the strategy and approved funding of its investigation and preliminary design (Board resolution 09/04/0173).

Although not specifically included as an element of the Waikato Expressway RoNS, the Hamilton Western Connection and Southern Links strategic element was recognised by the strategy support paper as contributing to increased access to markets (domestic and export) by enabling fast and efficient access to ports, logistics centres and customers.

The strategy support paper also clarified the qualification of the LTNZ Board resolution regarding the Hamilton Western Connection, in that "takes account of local community needs" acknowledges that much of the route passes through an existing urban environment where provision of a 105km/h expressway standard road would be inappropriate.

The Southern Links scheme assessment report (May 2013) confirmed the assessment profile as High strategic fit, High effectiveness and Medium efficiency. The Notices of Requirement were lodged in August 2013. The proposed designation is shown in Figure 5.2. Notification of the Notices is expected in late -2013, with hearings in 2014.

Figure 5.2 illustrates the extent of the Central Sector and notes the issues and opportunities within the sector relevant to the Network Plan. Where possible, issues have been given a locational reference. A detailed description of each issue/opportunity, the actions required to address each issue and the lead and support agencies to implement these actions is outlined in Table 5.4 Within this table issues are described north to south. The critical issues for the sector requiring actions within the next Network Plan period are discussed below.

Critical Issues – Central Sector

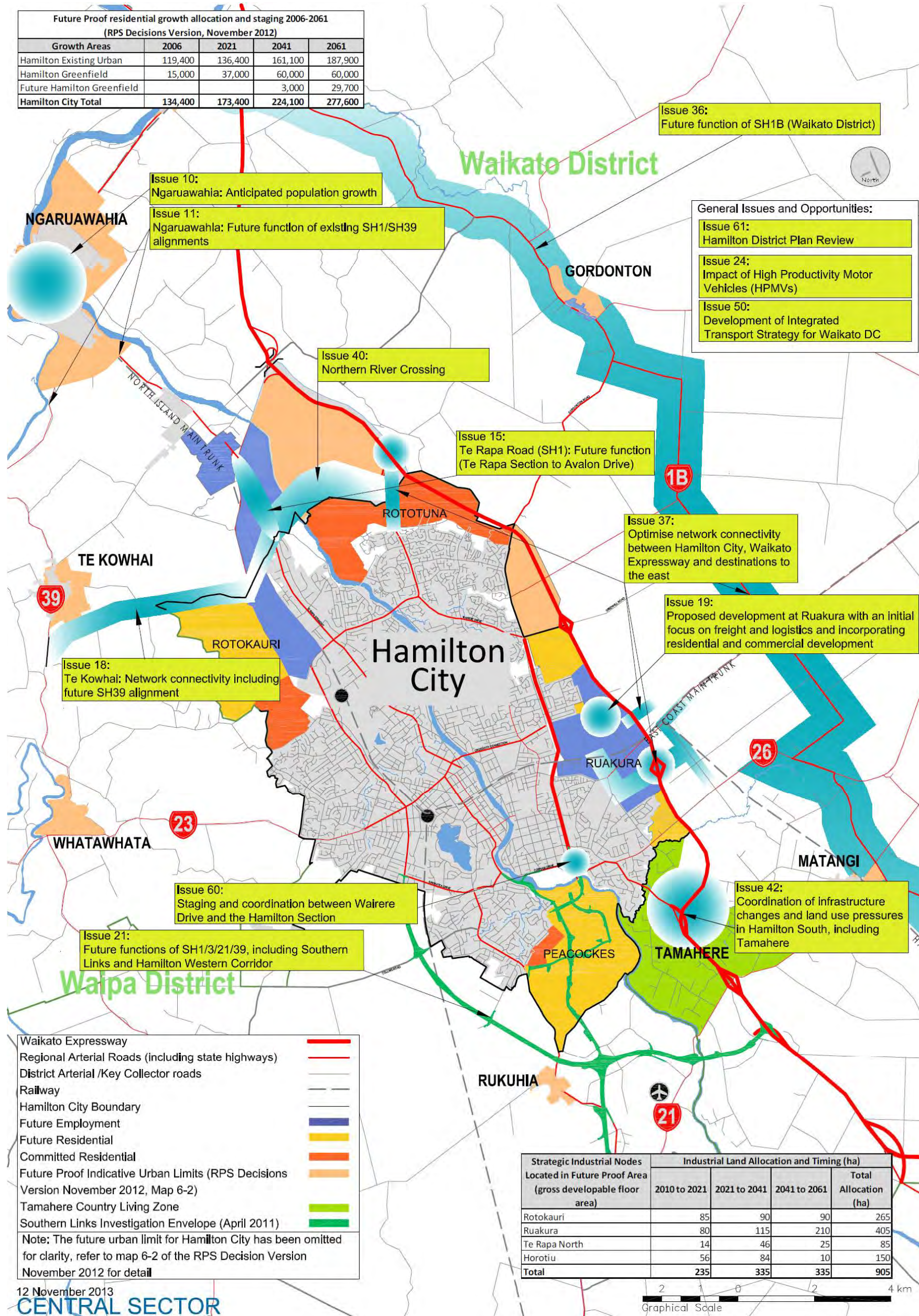
The critical issues identified specifically for the Central Sector are:

- 1 Determining the location and form of interchanges on the Hamilton section (including greater certainty regarding land use development at Ruakura) and connectivity to local network to the east of Hamilton;

- 2 Addressing the impacts on the Hamilton South interchange (function and capacity) arising from land use pressures within the catchment for the interchange through an agreed package of interventions;
- 3 Land use changes in vicinity of Hamilton International Airport
- 4 Staging and coordination between Wairere Drive and the Hamilton Section;

All of these issues require implementation actions from lead and support agencies before the next Network Plan review as they have the potential to delay progress on critical components of the Expressway.

Figure 5.2: Central Sector



Specific Issues

Table 5.4: Central Sector

Issue / Opportunity	Problem Description	Description	Further Actions	Lead Agency (Key Partners)
<p>Issue 10: Ngaruawahia: anticipated population growth</p>	<p>Population and employment growth in Ngaruawahia has the potential to increase congestion and access issues on the surrounding local road network and risks undermining investment in the Waikato Expressway</p>	<p>Future Proof defines urban limits for Ngaruawahia based on population and employment growth. Currently no structure plan for Ngaruawahia or Taupiri. Historical data shows a reduction in population and economic indicators. Population projections should be confirmed through the structure planning process.</p> <p>If population and employment growth are not balanced there is a risk that Ngaruawahia will become a satellite commuter town for Hamilton. Timing and rate of growth needs to be monitored to understand the impacts of potentially increasing local trips on the Waikato Expressway and existing SH1 route.</p> <p>Structure planning needs to be integrated and identify triggers for any infrastructure improvements that are required.</p> <p>Population and employment growth combined with state highway revocation may lead to opportunities for amenity improvements and economic growth.</p>	<p>Structure Plan for Ngaruawahia to be developed in line with urban limits/ principles defined in Future Proof. Due to commence in 2016.</p> <p>Review of community plan to consider revocation of SH1 and urban amenity enhancement.</p>	<p>Waikato DC (NZTA)</p>
<p>Issue 11: Ngaruawahia: Future function of existing SH1/ SH39 alignments</p>	<p>The function of the existing SH1 and SH39 alignments in and around Ngaruawahia will change significantly on completion of the Ngaruawahia Section of the Expressway, and state highway status is</p>	<p>Significant upgrades in the last two years have been carried out to the existing state highway through Ngaruawahia (mainly in the low speed area), to assist pedestrians and cyclists and to improve safety conditions</p> <p>Recommend revocation of SH status. It is anticipated SH1</p>	<p>NZTA revocation policy has been adopted. (NZTA General Circular No 12/03)</p> <p>Future form and function statements are being developed by NZTA/WKDC. This issue also applies to WILTS strategy.</p>	<p>NZTA (Waikato DC)</p>

Issue / Opportunity	Problem Description	Description	Further Actions	Lead Agency (Key Partners)
	<p>expected to be revoked. This is expected to cause a change in function, a consideration is whether the new function is still consistent with current form.</p>	<p>and northern section of SH39 will be revoked to local road once Ngaruawahia Section is completed.</p>	<p>(currently in development)</p> <p>Evaluate opportunities for enhanced walking/cycling connectivity as a strategic response to this issue.</p>	
<p>Issue 15: Te Rapa Road (SH1): future function (Te Rapa Bypass to Avalon Drive)</p>	<p>The function of the existing SH1 alignment through Te Rapa has changed since completion of the Te Rapa Section of the Expressway, and its status as a state highway is expected to be revoked. This is expected to cause a change in function, a consideration is whether the new function is still consistent with current form.</p>	<p>Recommend for revocation of SH status following construction of Te Rapa Section, recognizing change in function from inter-regional route to local arterial.</p> <p>Discussions between HCC and NZTA are on-going</p>	<p>NZTA revocation policy has been adopted. (NZTA General Circular No 12/03)</p> <p>Future form and function statements are being developed by NZTA/HCC. This issue also applies to WILTS strategy (currently in development) for the northern sections of Te Rapa Road</p> <p>Evaluate opportunities for enhanced walking/cycling connectivity as a strategic response to this issue. (To be confirmed with HCC)</p>	<p>NZTA (Waikato DC, HCC)</p>
<p>Issue 18: Te Kowhai: network connectivity including future SH39 alignment</p>	<p>Changes to the network layout in the vicinity of Te Kowhai village due to Expressway implementation will increase distance and travel times between Te Kowhai and Hamilton for access to services, employment, education etc.</p>	<p>Te Kowhai is shown as growth area (Hamilton Periphery) under Future Proof/ Waikato District Growth Strategy. Proposed population increase from 500 to 1250 and an additional 15 ha industrial land.</p> <p>Key issues and projects for Te Kowhai are identified in the Te Kowhai Community Plan 2011-2021.</p> <p>Connectivity between Te</p>	<p>Requires collaborative approach between NZTA, WKDC and HCC to understand and manage this issue.</p> <p>Greater understanding of the future function and alignment of SH39, including connectivity to Te Rapa Central</p>	<p>NZTA (HCC, Waikato DC)</p>

Issue / Opportunity	Problem Description	Description	Further Actions	Lead Agency (Key Partners)
		<p>Kowhai/SH39 and destinations in Hamilton has been affected by construction of Te Rapa section and associated links. In long term Rotokauri Structure Plan roading development will resolve, however it is zoned as "Future Urban" and timing is subject to development community priorities. Through HUGS, HCC prioritised residential development in Peacocke over Rotokauri.</p>	<p>Interchange and Rotokauri Structure Plan roading, is required.</p>	
<p>Issue 19: Proposed development at Ruakura with an initial focus on freight and logistics, and incorporating residential and commercial development</p>	<p>Proposed freight, logistics and commercial development at Ruakura will significantly alter the way the transport network is used in eastern Hamilton and the wider region, including access to and from the Waikato Expressway, leading to increased traffic volumes and reduced levels of services on the network without further investment</p>	<p>This issue is closely linked to Issue 37. Connectivity along Hamilton Section has been investigated and an optimised approach agreed between NZTA and stakeholders. A Private Plan Change has been lodged with the EPA and a Board of Inquiry appointed to hear and decide on that application. The final form of Expressway connectivity will need to take account of the decision of the Board.</p> <p>Future Proof allocates growth to the Ruakura cell for industrial land. Major development is proposed by Tainui Group Holdings (freight and logistics) and Chedworth Properties Ltd (residential) over a 30-50 year period that would significantly change heavy vehicle patterns into and around Hamilton City, and along the Waikato Expressway and in parts of Waikato District.</p> <p>Potential benefits associated with the proposal include increased economic activity and opportunities to integrate road and rail freight solutions across a significant section of</p>	<p>HCC continue to progress objectives and policies with which the structure plan should be integrated, through the statutory District Plan process.</p> <p>TGH/CPL continue to pursue Plan Change application through EPA/BOI processes</p> <p>Prior to commencement of the BOI hearing, NZTA is to lodge the alterations to Expressway designation required to maintain optimal connectivity in the event that the freight hub is established. It is expected this process will not be completed until after the BOI has made its decision on the private Plan Change.</p> <p>NZTA to continue to engage with TGH/CPL, HCC, Waikato District and</p>	<p>(HCC, TGH/CPL, Waikato DC, NZTA, Waikato Regional Council Future Proof)</p>

Issue / Opportunity	Problem Description	Description	Further Actions	Lead Agency (Key Partners)
		<p>the Upper North Island. In addressing the transport network impacts from this development, a whole of network approach is needed to align the city’s strategic network with the Expressway and achieve optimal connectivity.</p> <p>The Waikato pRPS (Table 6-2) anticipates 80ha of industrial land at Ruakura between 2010 and 2021 with a further 115ha to 2041 and another 210ha to 2061. While significant work has been carried out to understand the impacts of this allocation, there is a need to resolve issues of the staged provision of infrastructure and the development triggers or thresholds associated with that staging. This needs to be considered through the Board of Inquiry process and any subsequent alterations to designation for the Waikato Expressway.</p> <p>On 24 June 2013, TGH and CPL (Chedworth Properties Ltd) submitted a Private Plan Change application to the EPA to facilitate stage 1 development (389ha over 30 years). The EPA recommended that the Minister for the Environment direct the matter to a Board of Inquiry for decision, and a Board has been appointed. At the time of writing, the Board of Inquiry process is still underway.</p>	<p>Waikato Regional Council to understand impacts in and around eastern Hamilton, parts of Waikato District and on the Waikato Expressway, and agree the optimal form and combined investment approach for the transport network in this area.</p>	
<p>Issue 21: Future functions of SH1/3/21/39</p>	<p>The function of the existing state highways (SH1/ 3/ 21/ 39) in south and western Hamilton will change</p>	<p>The future function of “related” state highway sections will change following completion of the Expressway and Southern Links.</p>	<p>Further investigation into SH1/3/21/39 interactions is required as to confirm long-term</p>	<p>NZTA (HCC, Waipa DC, Waikato DC)</p>

Issue / Opportunity	Problem Description	Description	Further Actions	Lead Agency (Key Partners)
, including Southern Links and Hamilton Western Corridor	significantly on completion of the Expressway and Southern Links, with state highway status potentially be revoked. This is expected to cause a change in function which may be inconsistent with current form.	The RLTS 2011-2041 identifies the future functions of strategic corridors including these routes.	form and function. Staging of any revocation will also be important as Southern Links is not expected to be completed for some time (>15 years) Future functions have been informed by the Southern Sector study (July 2010) and will be further informed by Future Proof Airport and Adjacent Lands Study (July 2013) and Waipa District Plan hearings evidence.	
Issue 36: Future function of SH1B (Waikato District)	The function of the existing SH1B alignment through the Waikato District will change significantly as various Sections of the Expressway are completed, and its status as a state highway is expected to be revoked. This is expected to cause a change in function which may be inconsistent with current form.	Future function and form of SH1B needs to be considered, post-Expressway. The long-term function and traffic volumes are likely to vary along the route.	NZTA revocation policy has been adopted (NZTA General Circular No 12/03). NZTA and Waikato DC need to develop revocation agreements including future form and function statements.	NZTA and Waikato DC
Issue 37: Optimise network connectivity between Hamilton City, Waikato Expressway and destinations to the east	Changes arising from the continuing growth and development in and around North and East Hamilton will result in increased demand for efficient connectivity between Hamilton City, the Hamilton Section and destinations east of	This issue is also linked to proposed development at Ruakura outlined in Issue 19 and growth in Hamilton South (Issue 42). Connectivity along Hamilton Section has been investigated and an optimised approach agreed between the Transport Agency and stakeholders. The majority of issues have been	Hamilton Section macroscope agreed. Alteration to designation for Hamilton Section needs to reflect the agreed Resolution Drive interchange location and connectivity. HCC to confirm	NZTA (Waikato DC, HCC)

Issue / Opportunity	Problem Description	Description	Further Actions	Lead Agency (Key Partners)
	the Expressway.	resolved with the exception of the timing of completion of the Resolution Drive connection and interchange	<p>proposed funding source and timing for Resolution Drive connection.</p> <p>Adopt a coordinated approach to signage to optimise access between the Expressway and city centre (NZTA and HCC)</p>	
<p>Issue 40: Northern River Crossing</p>	<p>Growth in northern Hamilton will cause a reduction in efficiency and safety of the transport network, in particular crossings over the Waikato River, future residential development may preclude identification and implementation of a suitable river crossing.</p>	<p>HCC completed a draft scheme assessment 3-4 years ago. The identified route connects the Te Rapa Central Interchange to the Rototuna Structure Plan area and ultimately Resolution Drive. Based on then current growth rates, the scheme assessment identified that that crossing would be required in approximately 2038. However, the project is not expected to have sufficient strategic need to be successful in achieving a long term (>5 year) designation. HCC are planning to commence a review of the draft scheme assessment in 2018.</p> <p>A review in 2018 will tie-in with completion of the Waikato Expressway and the MOU with Waikato DC regarding the transfer of land to HCC.</p> <p>The Rototuna Structure Plan area is expected to be fully developed in 2022/23 (at the current growth rates). There may be opportunities to review the proposed alignment as part of structure plan processes.</p>	<p>HCC to monitor growth and development in the area and complete review of draft scheme assessment in 2018.</p>	<p>HCC</p>
<p>Issue 60: Staging and coordination</p>	<p>Lack of a coordinated approach to implementation of</p>	<p>Completing Wairere Drive to Cobham Drive is fundamental to the regional and local strategic network and supports</p>	<p>HCC and NZTA have agreed that Wairere Drive will be completed to</p>	<p>NZTA, HCC (WRC)</p>

Issue / Opportunity	Problem Description	Description	Further Actions	Lead Agency (Key Partners)
<p>between Wairere Drive and the Hamilton Section.</p>	<p>Wairere Drive (Hamilton Ring Road) and Hamilton Section projects may result in inappropriate use of the transport network (inter-regional traffic on local routes) and the projects not fully achieving their objectives.</p>	<p>the Expressway. However, construction of Wairere Drive ahead of the Hamilton Section of the Expressway has the potential for increased use of Wairere Drive as a 'de facto' bypass route. Cambridge Road (within Hamilton City) is a congested collector road being used by high traffic volumes and there is potential for the safety and efficiency issues to become more significant if Wairere Drive is not completed to Cobham Drive.</p> <p>Staging and coordination is critical to ensuring that the benefits from both projects are fully realised and has been considered by HCC and the Transport Agency. The recently agreed construction programme has Wairere Drive completed to Cobham Drive in 2019, timed to coincide with completion of the Hamilton Section.</p> <p>Furthermore, implementation of Wairere Drive needs to be coordinated with the proposed improvements to the SH1/Cambridge Road and SH1/Morrinsville Road roundabouts. The SH1/Morrinsville Road roundabout improvements will proceed to detailed design and construction, with the SH1/Cambridge Road roundabout detailed design and construction deferred to ensure consistent network treatment and reinforcement of the road hierarchy.</p> <p>The Wairere Drive/Cobham Drive intersection will be an interim at grade solution, laid out to minimise disruption when the Southern Links project is constructed (currently outside the 10 year planning period).</p>	<p>Cobham Drive in 2019, timed to coincide with completion of the Hamilton Section.</p> <p>The HCC 10-Year plan currently identifies the Peachgrove Road and Hukanui Road corridor intersection upgrades and minor improvements as an unfunded activity.</p> <p>Further consideration of options to reduce congestion at the SH1/Morrinsville Road roundabout will be undertaken to optimise access to the CBD via the SH1/Cobham Drive corridor.</p> <p>Development of the Network Operating Framework (NOF) for Hamilton will enable collaborative discussions and link strategic intent with operational and planning decisions across all modes.</p> <p>This issue will need to be considered in the Network Operating Framework for this section of Hamilton's transport network.</p>	

Issue / Opportunity	Problem Description	Description	Further Actions	Lead Agency (Key Partners)
		Development of Wairere Drive provides opportunities for improves opportunities for alternative modes and access function along the Peachgrove Road and Hukanui Road corridor.		
Issue 61: Hamilton District Plan Review	Uncertainty relating to the District Plan process may result in intent and desired outcomes of integrated strategies and plans being undermined.	<p>Land use uncertainty within Hamilton remains whilst District Plan is being reviewed.</p> <p>District Plan review is considering potential revisions to the proposed future land use within Hamilton City, including a structure plan for land at Ruakura recently transferred to HCC jurisdiction.</p> <p>TGH has applied to the EPA requesting a change to the Operative District Plan in relation to the Ruakura Structure Plan (also refer to Issue 19)</p>	NZTA and HCC to continue collaborating during the District Plan hearings process.	HCC (NZTA, Waikato-Tainui)

5.7 Southern Sector (Tamahere to South of Cambridge)

Description

Commencing immediately south of the existing Tamahere interchange, this sector is located mainly within Waipa District, and includes the remainder of the Waikato Expressway RoNS to south of Cambridge.

Construction of both the Tamahere and Cambridge Sections commenced in September 2013.

Figure 5.3 illustrates the extent of the Southern Sector and notes the issues and opportunities within the sector relevant to the Network Plan. Where possible issues have been given a locational reference. A detailed description of each issue/opportunity, the actions required to address each issue and the lead and support agencies to implement these actions is outlined in Table 5.5. Within this table issues are described north to south. The critical issues for the sector requiring actions within the next Network Plan period are discussed below.

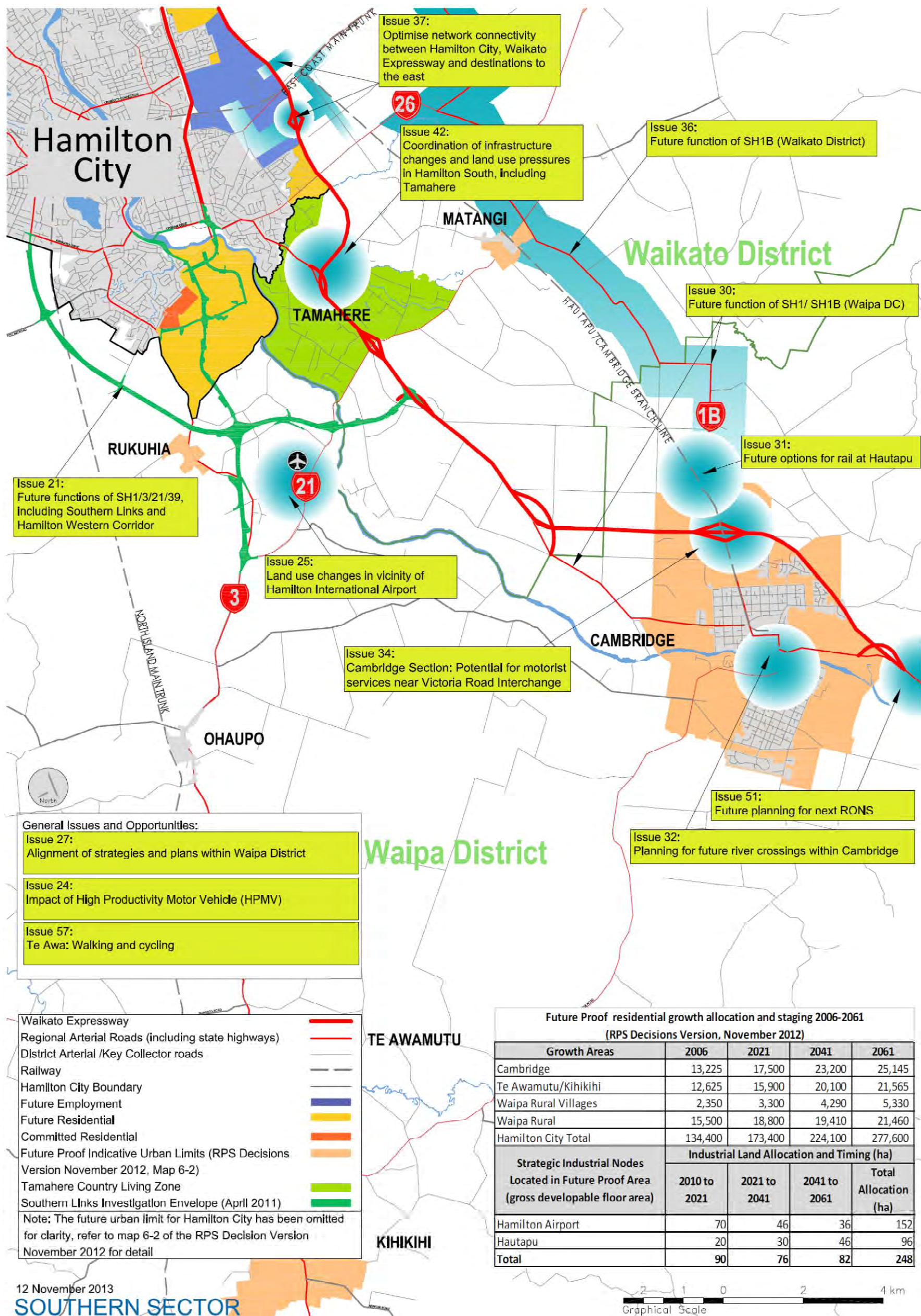
Critical Issues – Southern Sector

The critical issues identified specifically for the Southern Sector are:

- 1 Addressing the impacts on Hamilton South interchange (function and capacity) arising from land use pressures within the catchment for that interchange; and
- 2 Land use changes in vicinity of Hamilton International Airport

Both of these issues require implementation actions from lead and support agencies before the next Network Plan review as they have the potential to delay progress on critical components of the Expressway.

Figure 5.3: Southern Sector



Specific Issues

Table 5.5: Southern Sector Issues

Issue	Problem Description	Description	Further Actions	Lead Agency (Key Partners)
<p>Issue 25: Land use changes in vicinity of Hamilton International Airport</p>	<p>Increasing development of high traffic-generating activities in the vicinity of Hamilton International Airport will cause increased congestion, access and safety issues in the surrounding transport network, and risks undermining investment in the Waikato Expressway.</p>	<p>Plan changes, including Titanium Park may affect future connectivity requirements from SH21 to Expressway and SH3. Investigation into links between Hamilton Airport and Expressway are needed.</p> <p>Titanium Park already has consent for 117ha to be developed as part of Stage 1 with provision in the Proposed RPS for 70ha of development between now and 2021 with a further 82ha through until 2061.</p> <p>Future Proof recognizes the need for airport-related activities (particularly ones requiring direct access to the runways) to be provided for in the interests of maintaining the long term viability of the Airport as a strategic asset for the region. The Proposed RPS contains provisions which aim to control the level of non-airport related activity.</p> <p>Future Proof study into Airport and Adjacent Lands (July 2013) seeks to distinguish between permitted baseline and additional development sought, as well as identifying staging impacts within permitted baseline.</p>	<p>SH1/ 3/ 21 connectivity has been included in Southern Sector study and Southern Links investigation (generally grade-separated interchanges).</p> <p>SH3 Strategic Study will use Investment Logic Mapping (ILM) and Business Case approach for optimal investment.</p> <p>Consideration of this issue needs to be done in alignment with Issue 42: Form of Hamilton South Interchange and Tamahere Structure Plan.</p>	<p>NZTA (HCC, Waipa DC, Waikato DC, WRAL, Future Proof)</p>
<p>Issue 27: Alignment of strategies and plans within Waipa District</p>	<p>Uncertainty relating to the District Plan process may result in intent and desired outcomes of integrated strategies and</p>	<p>Ensure that District Plan review is aligned with Waipa 2050, Waipa Town Concept Plans, Waipa Integrated Transport Strategy, and that transport impacts of rezoning options are fully assessed. Current town concept plans and Waipa 2050 have a high level focus only, for instance creating gateways and vistas</p>	<p>NZTA and Waipa DC continue to collaborate during the District Plan hearings process.</p>	<p>Waipa DC and NZTA</p>

Issue	Problem Description	Description	Further Actions	Lead Agency (Key Partners)
	plans being undermined.	<p>into Cambridge.</p> <p>Waipa Integrated Transport Strategy adopted by Council</p> <p>Some submitters to Proposed Waipa District Plan have requested changes in staging of development in some areas which may have implications for local network impacts, for example Hamilton Road (SH1).</p>		
<p>Issue 30:</p> <p>Future function of SH1/ SH1B (Waipa DC)</p>	<p>The function of the existing SH1 and SH1B within the Waipa District will change significantly on completion of the Cambridge Section of the Expressway, and state highway status is expected to be revoked. This is expected to cause a change in function which may be inconsistent with current form.</p>	<p>Future function and form of SH1 (Hamilton Road), SH1B (Victoria Road) and SH1 (Shakespeare Street south to Tirau Road interchange) needs to be considered, post-Expressway. For SH1B, long-term function varies (e.g. urban inside Expressway vs. rural outside Expressway).</p> <p>Traffic volumes on Cambridge bridges after bypass completion may be a concern - modelling results need to be re-assessed.</p> <p>Future form and function will be informed by Waipa Town Concept Plans and Waipa Integrated Transport Strategy. This issue also links to perception that Cambridge will be a service area for through traffic on the Expressway</p>	<p>NZTA revocation policy has been adopted (NZTA General Circular No 12/03). NZTA and Waipa DC need to develop revocation agreements including future form and function statements.</p> <p>Waipa DC will still view these as urban arterial routes. The form of the Shakespeare St/ Tirau Road (SH1) intersection may need reviewing once Cambridge Section is in operation (project included in Council's LTP)</p> <p>Opportunities exist for increased active modes use of existing SH1 alignment and urban section of SH1B.</p>	<p>NZTA and Waipa DC</p>
<p>Issue 31:</p> <p>Future options for rail at Hautapu</p>	<p>Opportunities for freight and passenger rail services to Cambridge will be lost if the rail corridor designation is uplifted.</p>	<p>Currently the Cambridge branch line terminates at Hautapu, north of the Cambridge Section, however the rail corridor remains designated to the town centre.</p> <p>Although studies have identified current demand for freight and passenger services to be reinstated to Cambridge is low, strategic planning has identified the need to retain</p>	<p>A report has been completed on this issue; this will require updating as new information comes to hand.</p> <p>Include appropriate recognition/ protection through District Plan review (Waipa DC). Longer term consideration of</p>	<p>Waipa DC (NZTA, WRC, KiwiRail)</p>

Issue	Problem Description	Description	Further Actions	Lead Agency (Key Partners)
		options that include rail for future consideration.	these issues should be coordinated through the Regional PT Plan, Regional Rail Strategy and RLTS.	
<p>Issue 32: Planning for future river crossings within Cambridge</p>	<p>The number and reliability of existing river crossings in Cambridge may not meet future demand, leading to reduced effectiveness of the transport network.</p>	<p>Modelling indicates that construction of the Cambridge Section of the Expressway defers the need for an additional river crossing for the foreseeable future, however there are route security and maintenance concerns associated with the Victoria (high level) bridge.</p> <p>Continuing development in Cambridge may also limit options for an additional crossing in future if not protected.</p> <p>Waipa DC has included an investigation project in the current 10-Year Plan</p>	<p>Investigation for “third bridge” has been included in TIO.</p> <p>Need to ensure alignment of NLTP and LTP funding for both investigation and future land purchase</p>	<p>Waipa DC</p>
<p>Issue 34: Cambridge Section - Potential for motorist services near Victoria Road Interchange.</p>	<p>Lack of a coordinated approach to provision of motorist services along expressway will prevent safety and efficiency benefits of expressway from being fully realised.</p>	<p>The Proposed Waipa District Plan identifies an opportunity to locate motorist services at the Victoria Road interchange.</p>	<p>Principles of existing strategies e.g. regional stock truck effluent strategy need to be followed.</p> <p>NZTA principles regarding location of motorist service centres to be applied to individual requests. (2008 Transit NZ Policy to be reviewed and updated if required)</p>	<p>NZTA (Waipa DC, Fonterra)</p>
<p>Issue 42: Coordination of infrastructure changes and land use pressures in Hamilton South, including</p>	<p>Land use pressures and connectivity changes arising from development and Expressway construction to the south of Hamilton will result in reduced efficiency and</p>	<p>The land use pressures analysis undertaken by the Future Proof partners confirmed that the Hamilton Southern Interchange is likely to be under pressure by 2041 as a result of projected population growth within Tamahere and Cambridge.</p> <p>Waikato DC’s Plan Change 2 (formerly Variation 16) will limit some of this pressure.</p>	<p>The analysis has recommended the implementation of a number of land use and transport measures to reduce the impacts of the projected land use pressures on the Expressway by 2041.</p> <p>Future Proof has resolved to implement</p>	<p>NZTA, Waikato DC, HCC, Future Proof</p>

Issue	Problem Description	Description	Further Actions	Lead Agency (Key Partners)
Tamahere	safety of the proposed Waikato Expressway and associated network.	<p>Land use changes to support employment self-sufficiency in Cambridge have been identified through zoning changes in Waipa’s Proposed District Plan (e.g. Hautapu and Carters Flat).</p> <p>The Tamahere Structure Plan (Plan Change 3) has been partially reviewed by Waikato DC (Decisions notified 27 April 2013) but did not seek changes to the land use pattern for the area.</p> <p>The affected network includes:</p> <ul style="list-style-type: none"> - Cambridge Road (SH1) to Hamilton - SH1/Morrinsville Road and SH1/Cambridge Road roundabouts - Tamahere Interchange, SH21 and Tauwhare Road - Tamahere Structure Plan local road, pedestrian and cycle networks including Newell Road and proposed link roads - east-west connectivity across SH1 - Tamahere Drive (potential impact of Southern Links) - Hamilton Road (SH1) to Cambridge 	<p>the following provisions:</p> <ul style="list-style-type: none"> - Improve PT connections between Cambridge and Hamilton - Tamahere east-west link road designation (needs to be confirmed with actual meeting resolutions) <p>Further provisions currently being implemented include:</p> <ul style="list-style-type: none"> - South East Hamilton One Network Review - Hamilton Section alterations to designation - Southern Links designation - Implementation of WILTS (Waikato DC) - Implementation of WITS (Waipa DC) - Improvements at SH1 roundabouts in Hillcrest - Network Operating Framework <p>The review and implementation of these measures is to be undertaken by Future Proof partners through RLTP and planning processes. To further guide these implementation measures an action plan is to be developed and will be monitored through the TIG. This will also require updating following recent RPS, structure plan, district plan and consenting decisions.</p> <p>Consideration of this issue needs to be done in alignment with Issue 25 Land</p>	

Issue	Problem Description	Description	Further Actions	Lead Agency (Key Partners)
			Use changes in vicinity of Hamilton International Airport.	
<p>Issue 51: Future planning for next RONS</p>	<p>Network constraints south of the Waikato Expressway may result in inter-regional traffic choosing alternative routes, reducing the effectiveness of the Expressway in achieving its objectives.</p>	<p>There is potential for SH29 Piere to Tauranga to be included as a future RoNS to ensure that the objectives of the Waikato Expressway are achieved.</p>	<p>Investigations may be required in next planning period. This has been initiated within the HNO Corridor Plans on SH1 already in progress.</p>	<p>NZTA (Waipa DC)</p>
<p>Issue 57: Te Awa - walking and cycling</p>	<p>The benefits of Te Awa may not be fully realised unless it is integrated with the adjacent networks.</p>	<p>Te Awa - The Great NZ River Ride forms part of the NZ Cycle Trail, a national project to build a world class network of cycle trails.</p> <p>Need to investigate potential for connections to and between on-road and off-road cycle networks to ensure that Te Awa, local road networks and the Waikato Expressway complement each other.</p>	<p>Consider Expressway and local road linkages as part of individual projects.</p>	<p>HCC, Waipa DC, Waikato DC (NZTA)</p>

Part D

6.0 Plan Implementation

6.1 Network Plan Groups

The Network Plan is to be implemented through collaboration with members of the Future Proof Technical Implementation Group (TIG) and other key stakeholders to progress and prioritise the activities required for optimising the Expressway and associated networks.

To guide these implementation processes, the Network Plan identifies 19 groups of activities requiring actions from stakeholders. Each of these groups of activities addresses a common set of issues, capturing both the land use and transport activities required to address these issues. Where possible, groups have been structured to align with packages of work identified within existing strategies and plans.

The individual transport activities within each group have been evaluated in terms of their contribution to the Expressway objectives, and allocated a ranking of 1, 2, 3 or nil, corresponding to High, Medium, Low or no contribution. The evaluation is based on an assessment of the significance of the contribution in a similar way to how “strategic fit” of an issue is assessed following Transport Agency procedures, using road, land use and traffic data and forecasts and criteria such as: economic development and level of service/efficiency criteria and safety criteria (refer detailed methodology Appendix D). Activities assessed as being critical to realising the benefits of the Expressway receive a High strategic fit and are discussed in further detail below.

The prioritisation of key actions within each group of activities has been developed using the Transport Agency’s intervention hierarchy, considering the implementation of low cost measures to address issues before the consideration of significant infrastructure items.

It is noted that there is still a need for identified activities and groups to be assessed in the relevant statutory frameworks such as the Land Transport Management Act, Resource Management Act and Local Government Act. All transport activities included in the Plan will still also need to be evaluated for strategic fit, effectiveness and efficiency in accordance with the Transport Agency’s investment requirements and this assessment will continue to recognise the contribution of activities to the Expressway objectives as described in this Network Plan.

6.2 Priority Groups and Package Development

To further guide implementation a number of priority groups are identified in Table 6.1 as these contain activities required to address the critical issues identified for the Expressway.

The land use and transport activities identified within these priority groups will be considered in formulation of the next Regional and National Land Transport Programme (RLTP/ NLTP), and will also inform prioritisation of regional and local authority strategic and resource management planning and Long Term Plan processes. In terms of RLTP/NLTP processes, the groups identified are to be used as a basis for the development of packages for Transport Agency endorsement.

These priority groups are:

Table 6.1: Priority Network Plan Groups

Group	Relevant critical issue/s	Lead Agency (Support Agency)	Strategy to support package development/ implementation	Summary of Actions required
Group 01 - SH39 Corridor	4	NZTA (HCC, WKDC)	Network Plan Waikato Integrated Land Transport Strategy	NZTA - develop form and function statements in partnership with Waikato DC.
Group 02 - Wairere Drive (Hamilton Ring Road)	2, 6	HCC (NZTA)	Access Hamilton	HCC - Complete construction of Wairere Drive Extension (Ruakura to Cobham). HCC - development of alternative modes on adjacent corridors (e.g. Peachgrove/ Hukanui).
Group 03 - Northern Corridor (Hamilton City)		NZTA (HCC, WRC)	Access Hamilton	HCC - coordination of construction programme in Rotokauri. WRC and HCC - PT strategy review.
Group 05 - Tamahere Area	3	WKDC (Future Proof, NZTA, HCC)	Network Plan	All - Develop package for RLTS. NZTA and Waikato DC - South East Hamilton One Network Review
Group 06 - Cambridge Area	7	WPDC (Future Proof, NZTA)	Waipa Integrated Transport Strategy	NZTA - develop form and function statements in partnership with Waipa DC. Waipa DC - progress District Plan through statutory processes
Group 07 - Future Form and Function of existing State Highways in Waikato DC (SH1, SH1B and SH39)	4, 7	NZTA (WKDC)	Network Plan Waikato Integrated Land Transport Strategy	NZTA - develop form and function statements in partnership with Waikato DC. NZTA - Support Expressway objectives by encouraging early uptake of new alignments/ Expressway Sections as they are completed

Group	Relevant critical issue/s	Lead Agency (Support Agency)	Strategy to support package development/ implementation	Summary of Actions required
Group 09 – Future Form and Function of existing State Highways in Hamilton CC (SH1, SH26 and SH39)	4	NZTA (HCC)	Access Hamilton	NZTA and HCC - determine long-term form and function of existing SH3 as part of Southern Links investigation. NZTA - consider form and function of existing SH1 and SH26 between the Expressway and Hamilton City". NZTA - Support Expressway objectives by encouraging early uptake of new alignments/ Expressway Sections as they are completed
Group 12 – Expressway Connectivity: Hamilton Section	2, 3, 4	NZTA (HCC, WKDC)	Network Plan Access Hamilton	NZTA – progress alteration to designation to reflect agreed interchange locations and connectivity HCC - confirm proposed funding source and timing for Resolution Drive connection.
Group 16 – Future Form and Function of existing State Highways in Waipa DC (SH1 and SH1B)	4	NZTA (WPDC)	Network Plan Waipa Integrated Transport Strategy	NZTA - develop form and function statements in partnership with Waipa DC. Support Expressway objectives by encouraging early uptake of new alignments/ Expressway Sections as they are completed
Group 17 – North Waikato Land use	1	WKDC (NZTA, Future Proof)	Network Plan Waikato Integrated Land Transport Strategy	Waikato DC - Structure planning for urban areas within the District NZTA - manage connectivity to the Expressway. Future Proof partnership – develop understanding of key planning issues and collaborate with other agencies to develop vision.
Group 18 – Hamilton City Centre Growth and access	2	HCC (NZTA, Future Proof)	Access Hamilton	HCC – progress District Plan through statutory processes NZTA - manage connectivity to the Expressway. Adopt a coordinated approach to signage to optimise access between the Expressway and city centre (NZTA and HCC)

Activities with a high contribution to optimisation

Implementing the Waikato Expressway will have measurable and broadly predictable effects on local networks (both positive and negative). How these effects are managed will affect the amount of benefit gained nationally and locally from the RoNS investment, and also directly impacts on the degree to which opportunities will be realised by communities directly associated with the Expressway. A key function for this Network Plan is to identify activities required for the implementation of the Expressway, and in particular those activities that will be critical to optimising the outcomes and objectives of the RoNs.

As noted above a process has been undertaken to identify the activities that are associated with the Waikato Expressway, including the use of modelling using the Waikato Regional Transportation Model (WRTM) to identify roads and corridors where significant changes in traffic patterns are expected following construction of the Expressway. The activities associated with these routes have then been assessed to determine their contribution to optimisation of the Waikato Expressway and the associated local networks, using the methodology described in Appendix D.

From this process tables have been developed for each sector identifying the activities seen as critical to achieving optimisation. In accordance with the Transport Agency's Investment and Revenue Strategy (IRS), New and Improved Local Road activities identified in the following tables are assessed as being critical to the operation of a RoNS. This indicates that they have a High strategic fit for the purpose of determining an assessment profile. The New and Improved Local Road activities assessed as being critical to the operation of a RoNS are listed separately in Table 6.5 .

The IRS only recognises New and Improved Local Road activities as having the potential to be critical to the operation of a RoNS. Through this network plan, however, a number of other activity types have been identified as making a high contribution to optimising the benefits of the Waikato Expressway and associated networks. These are listed here for completeness, and it is expected that their contribution to realising RoNS benefits will be recognised when their assessment profile is determined.

The costs and timings for the activities listed in the tables below recognise the most recent LTPs developed in mid-2012. Future updates will be reported via the Future Proof Technical Implementation Group prior to inclusion in the Network Plan.

Optimisation – Northern Sector

Table 6.2 below identifies the activities within the Northern Sector that have been assessed as making significant contributions to optimisation of the Waikato Expressway and associated networks, using the methodology outlined above.

Table 6.2: Summary of activities required for optimisation – Northern Sector (* indicates that the activity is currently DRAFT within TIO)

NORTHERN SECTOR				
Activity Name	Activity Phase	Total Phase Cost (\$)	RLTP/NLTP Period/s (View to 2021)	Lead Authority
Integrated Planning				
Huntly Structure Plan - Planning (2017-2020)	Land Use Planning			WKDC
Pokeno Structure Plan - Planning	Land Use Planning			WKDC
Te Kauwhata Structure Plan - Planning	Land Use Planning			WKDC
Tuakau Structure Plan - Planning (2012-2016)	Land Use Planning			WKDC
New Road Infrastructure				
Huntly Section	Investigation	\$12,532,000	2012-2015	NZTA
Huntly Section	Property	\$15,000,000	2012-2015	NZTA
Huntly Section	Construction	\$538,689,000*	2015-2018	NZTA
Long Swamp Section	Investigation	\$2,600,000	2012-2015	NZTA
Long Swamp Section	Design	\$2,500,000	2012-2015	NZTA
Long Swamp Section	Property	\$1,000,000	2012-2015	NZTA
Long Swamp Section	Construction	\$58,594,000*	2015-2018	NZTA
Rangiriri Section	Investigation	\$203,100	2012-2015	NZTA
Rangiriri Section	Design	\$5,105,500	2012-2015	NZTA
Rangiriri Section	Construction	\$99,200,000	2012-2018	NZTA
Rangiriri Section	Property	\$4,982,370	2012-2015	NZTA

Optimisation – Central Sector

Table 6.3 below identifies the activities in the Central Sector that have been assessed as making significant contributions to optimisation of the Waikato Expressway and associated networks, using the methodology outlined above.

Since Version 2.0, a Multi-Party Funding Agreement (MPFA) has been drawn up to reflect agreement between the parties on the scope of new roading infrastructure related to the development of the Tamahere Structure Plan. This aims to align the internal roading connectivity in Tamahere with the connectivity the Transport Agency provides in the final design for the Hamilton Southern Interchange, and will establish funding responsibilities for the various roading elements.

Table 6.3: Summary of activities required for optimisation – Central Sector (* indicates that the activity is currently DRAFT within TIO)

CENTRAL SECTOR				
Activity Name	Activity Phase	Total Phase Cost (\$)	RLTP/NLTP Period/s (View to 2021)	Lead Authority
Integrated Planning				
2012 Hamilton Strategic Network Signage	Construction	\$666,400*	2015-2018	HCC
2012 Intersection Optimisation - Signal Comms and Monitoring	Construction	\$864,200*	2015-2018	HCC
Ngaruawahia Structure Plan - Planning (2013-2017)	Land Use Planning			WKDC
Peacocke Structure Plan - Planning	Land Use Planning			HCC
Rotokauri Structure Plan - Planning	Land Use Planning			HCC
Rototuna Structure Plan - Planning	Land Use Planning			HCC
Ruakura Growth Cell - Planning	Land Use Planning			HCC
Tamahere Structure Plan - Planning	Implementation			WKDC
Demand Management				
2012 Strategic Bus Network – Prioritisation	Design	\$550,000	2012-2015	HCC
2012 Strategic Bus Network – Prioritisation	Construction	\$2,200,000	2012-2015	HCC
Optimising Existing Infrastructure				
Peachgrove and Hukanui Intersection Upgrades (unfunded)		Unfunded		HCC
New Road Infrastructure				
2012 Resolution Drive - Expressway	Investigation	\$1,584,400*	2018-2021	HCC
2012 Resolution Drive - Expressway	Design	\$1,942,700*	2018-2021	HCC
2012 Resolution Drive - Expressway	Property	\$2,000,000*	2018-2021	HCC
2012 Resolution Drive - Expressway	Construction	\$3,665,500*	2018-2021	HCC

2012 Strategic Network Optimisation	Investigation	\$292,500*	2015-2018	HCC
2012 Strategic Network Optimisation	Design	\$1,133,000*	2015-2018	HCC
2012 Strategic Network Optimisation	Construction	\$3,665,000*	2018-2021	HCC
Hamilton Ring Road - 4 laning and Extension	Construction	\$67,000,000	2009-2012	HCC
Hamilton Ring Road Completion	Construction	\$33,615,000	2012-2015	HCC
Hamilton Ring Road (Crosby to Cambridge)	Design	\$1,290,000	2012-2015	HCC
Hamilton Ring Road (Crosby to Cambridge)	Property	\$19,731,000	2012-2015	HCC
Hamilton Ring Road (Crosby to Cambridge)	Construction	\$9,840,600	2012-2015	HCC
Hamilton Section	Investigation	\$8,912,600	2012-2015	NZTA
Hamilton Section	Property	\$65,000,000	2012-2015	NZTA
Hamilton Section	Design	*	2015-2018	NZTA
Hamilton Section	Construction	\$599,181,000*	2015-2018	NZTA
Hamilton Southern Links	Investigation	\$5,250,000	2012-2015	NZTA
Hamilton Southern Links	Property	\$40,043,000*	2018-2021	NZTA
Hamilton Southern Links	Design	\$6,808,000*		NZTA
Hamilton Southern Links	Construction	\$409,842,000*		NZTA
Hillcrest & Morrinsville Rd IS	Construction	\$4,452,000	2012-2015	NZTA
Laxon Rd Realignment (SH39)	Design	\$113,000	2012-2015	NZTA
Limmer Rd Realignment (SH39)**	Design	\$98,000	2012-2015	NZTA
Limmer Rd Realignment (SH39)**	Construction	\$754,000	2012-2015	NZTA
Ngaruawahia Section	Property	\$26,380,000	2012-2015	NZTA
Ngaruawahia Section	Design	\$4,409,500	2012-2015	NZTA
Ngaruawahia Section	Construction	\$168,795,100	2012-2015	NZTA
Southern Links Designation - Hamilton Arterials	Investigation	\$2,250,000	2012-2015	HCC
Southern Links Designation - Hamilton Arterials	Property	*		HCC
Southern Links Designation -	Design	*		HCC

Hamilton Arterials				
Southern Links Designation - Hamilton Arterials	Construction	*		HCC
Tamahere East - West Connection***	Property	\$500,000	2012-2015	WKDC
Tamahere East - West Connection***	Design	\$125,000*	2015-2018	WKDC
Tamahere East - West Connection***	Construction	\$4,200,000*	2015-2018	WKDC

* - indicates that the activity is currently DRAFT within TIO

** note - main construction costs associated with upgrading Limmer Road to SH standard are included in Ngaruawahia Section costs (cost-scope adjustment, 2013).

*** note - Tamahere East-West Connection included in Multi Party Funding Agreement (MPFA)

Optimisation – Southern Sector

Table 6.4 below identifies the activities in the Southern Sector that have been assessed as making significant contributions to optimisation of the Waikato Expressway and associated networks, using the methodology outlined above.

Table 6.4: Summary of activities required for optimisation – Southern Sector (* indicates that the activity is currently DRAFT within TIO)

SOUTHERN SECTOR				
Activity Name	Activity Phase	Total Phase Cost (\$)	RLTP/NLTP Period/s (View to 2021)	Lead Authority
Integrated Planning				
Cambridge Post Bypass Traffic Options Plan	Study	\$85,000	2012-2015	WPDC
Hautapu Industrial Growth	Land Use Planning			WPDC
Integrated Traffic Studies (WITS)	Study	\$50,000	2012-2015	WPDC
Town Concept Plans - Implementation	Land Use Planning	\$4,205,000	2012-2015	WPDC
New Road Infrastructure				
Cambridge Bypass Old State Highway Intersection Improvements (2014) - SH1/1B ****	Construction	\$2,200,000	2012-2015	WPDC
Cambridge Bypass Old State Highway Intersection Improvements (2015) - Shakespeare St / Tirau Rd ****	Construction	\$700,000	2012-2015	WPDC

* note - indicates that the activity is currently DRAFT within TIO

**** note - these activities contribute to the local network operation. Their assessment profile is MML. Their contribution to optimisation of the Waikato Expressway should be re-evaluated as more complete information becomes available.

Optimisation – New and Improved Local Roads critical to the operation of the Waikato Expressway

Table 6.5 below identifies the activities in the Southern Sector that have been assessed as critical to the operation of the Waikato Expressway, on the basis that they make significant contributions to optimisation of the Waikato Expressway and associated networks, using the methodology outlined in Appendix D.

In accordance with the IRS, the activities identified in the Table 6.5 are assessed as having a high strategic fit for the purpose of determining an assessment profile.

Table 6.5: New and Improved Local Road activities critical to the operation of the Waikato Expressway

ALL SECTORS				
Activity Name	Activity Phase	Total Phase Cost (\$)	RLTP/NLTP Period/s (View to 2021)	Lead Authority
Optimising Existing Infrastructure				
Peachgrove and Hukanui Intersection Upgrades (unfunded)		Unfunded		HCC
New Road Infrastructure				
2012 Resolution Drive - Expressway	Investigation	\$1,584,400*	2018-2021	HCC
2012 Resolution Drive - Expressway	Design	\$1,942,700*	2018-2021	HCC
2012 Resolution Drive - Expressway	Property	\$2,000,000*	2018-2021	HCC
2012 Resolution Drive - Expressway	Construction	\$3,665,500*	2018-2021	HCC
Hamilton Ring Road - 4 laning and Extension	Construction	\$67,000,000	2009-2012	HCC
Hamilton Ring Road Completion	Construction	\$33,615,000	2012-2015	HCC
Hamilton Ring Road (Crosby to Cambridge)	Design	\$1,290,000	2012-2015	HCC
Hamilton Ring Road (Crosby to Cambridge)	Property	\$19,731,000	2012-2015	HCC
Hamilton Ring Road (Crosby to Cambridge)	Construction	\$9,840,600	2012-2015	HCC
Tamahere East - West Connection***	Property	\$500,000	2012-2015	WKDC
Tamahere East - West Connection***	Design	\$125,000*	2015-2018	WKDC

Tamahere East - West Connection***	Construction	\$4,200,000*	2015-2018	WKDC
Cambridge Bypass Old State Highway Intersection Improvements (2014) - SH1/1B ****	Construction	\$2,200,000	2012-2015	WPDC
Cambridge Bypass Old State Highway Intersection Improvements (2015) - Shakespeare St / Tirau Rd ****	Construction	\$700,000	2012-2015	WPDC

* note - indicates that the activity is currently DRAFT within TIO

*** note - Tamahere East-West Connection included in Multi Party Funding Agreement (MPFA)

**** note - these activities contribute to the local network operation. Their assessment profile is MML. Their contribution to optimisation to the Waikato Expressway should be re-evaluated as more complete information becomes available.

6.3 Programming and Funding

Funding Considerations

The activities listed in Appendix E cover a wide range of land use and transport activity types, including many that are not eligible for financial assistance from the NLTF. Of the associated activities that are eligible for financial assistance, the majority already have funding sources identified within the relevant LTP and/ or NLTP.

Appendix F sets out the detailed funding plan for the Network Plan implementation. Figure 6.1 below highlights the relative proportions of forecast funding for activities that are assessed as making a significant contribution to optimisation (both RoNS and Local Road activities), those that make a medium contribution to optimisation, and those expected to make little or no contribution.

As expected, the majority of the funding identified is associated with the RoNS projects (62%). It is noted that beyond 2015, the funding proportion for “1(local)” and “other” activities is relatively low. This reflects the lack of detailed cost information in Transport Investment Online (TIO) beyond the current funding period. It is expected that this will continue to be reviewed as more information becomes available.

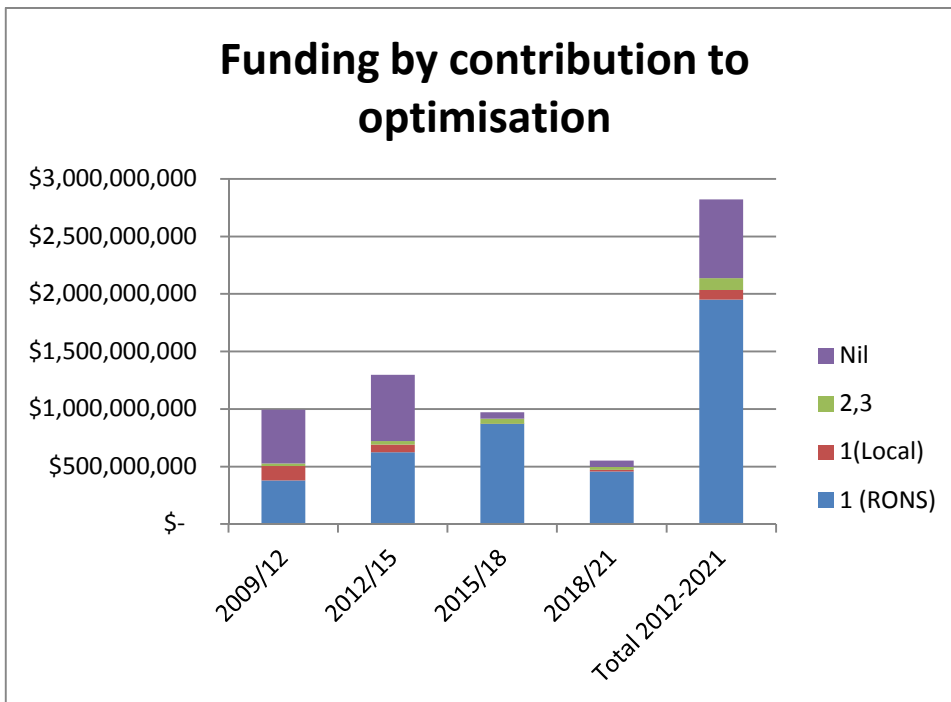


Figure 6.1: Forecast Funding by Contribution to Waikato Expressway

During development of the Network Plan, a number of activities were identified that have no associated funding source. These are indicated in the Group tables (Appendix E) as “New Activities”, and cover a range of activity types. Table 6.6 below indicates new activities that are likely to carry an expectation of Transport Agency financial assistance at some future point.

Table 6.6: New activities identified within the Network Plan

New Activity	Description	Lead Agency	By When
Tamahere Structure Plan internal roading and walking/ cycling connectivity	Details of the Tamahere Country Living Zone roading and walking/ cycling connectivity are being developed through the Tamahere Structure Plan review, in conjunction with design of the Hamilton Southern Interchange of the Expressway. An integrated package of interventions is anticipated to result from this work, including NZTA and Waikato DC components.	NZTA/ Waikato DC	2018
High Productivity Motor Vehicle Routes	Routes for HPMVs to be identified through agreed permitting processes.	NZTA/ road controlling authorities	On going

Sources of Funding

The majority of activities identified within the Network Plan expected to seek financial assistance from the NLTF are already identified within TIO.

The GPS sets ranges of expenditure from the NLTF, including a minimum and maximum expenditure range for each activity class. These ranges are further defined by the Transport Agency’s Investment and Revenue Strategy, which sets out how programmed expenditure will give effect to the GPS. The investment ranges identified in the IRS nationwide are set out in Figure 6.2 below.

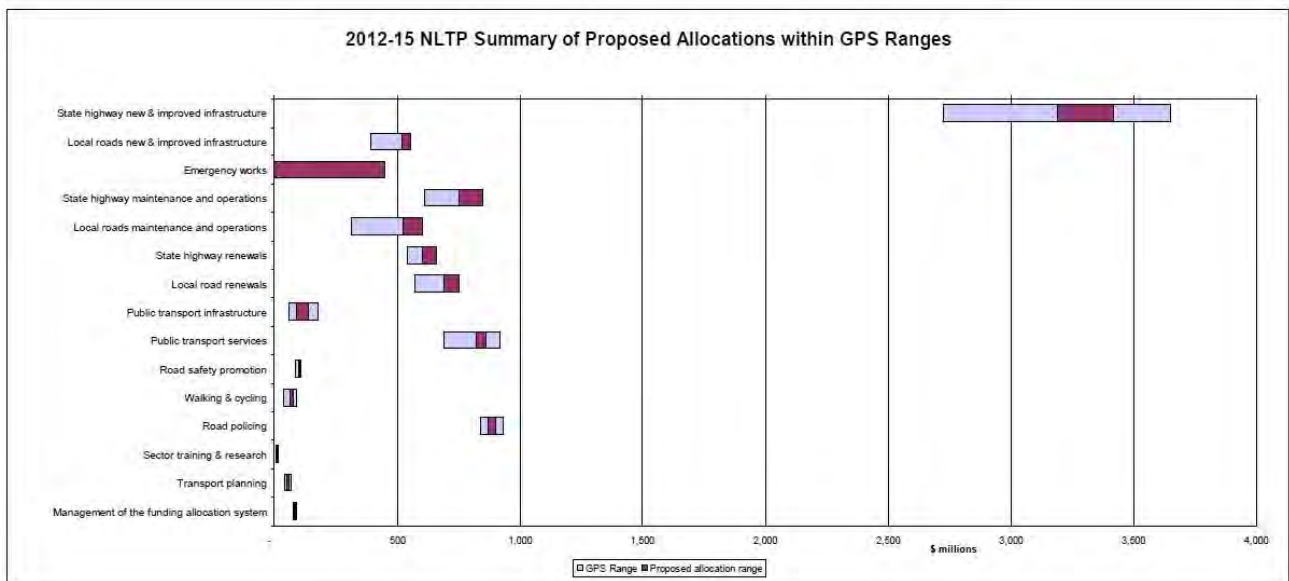


Figure 6.2: Future NLTP Summary of Proposed Allocations within GPS Ranges

Similarly, local share revenue is defined through LTPs providing a view of available expenditure at local level. For activities funded from both NLTF and local share, coordination of these expenditure ranges is important.

The GPS and LTP effectively set out the constraints on available funding from revenue-based sources. To date it has not proved possible to quantify these constraints at a level specific to this network plan. Investment decisions therefore are reliant on prioritisation of activities, to ensure that the most critical interventions are given priority for available funds. The prioritisation set out in this network plan will inform the prioritisation of activities through both NLTP and LTP formulation.

As noted above, the availability of funding from revenue-based sources (local and national) is invariably subject to constraints. Therefore in order to fully implement the groups of activities identified in Appendix E within timeframes that will support effective implementation of the Expressway, it is likely that a full range of funding sources will need to be investigated in addition to the NLTF and local share, including (but not limited to):

- 1 Tolls;
- 2 Public-private partnerships; and

3 Supplementary funds, including developer contributions and financial contributions.

The 2011-41 RLTS recognises a range of funding sources in addition to the NLTF and local share derived from rates, including tolls and developer contributions, although these latter sources have not been included in the RLTS funding analysis. As the funding plan for the Network Plan is developed, the full range of funding sources will require further investigation.

It is expected that an appropriate range of funding sources will be considered as each activity or package is developed. In addition, the Transport Agency will seek to work with key stakeholders to develop a wider understanding of how alternative sources of funding may be relevant to the Expressway and associated activities. This understanding will also be used to inform further development of the funding plan for the Network Plan.

6.4 Further Development and Review of the Network Plan

This Network Plan has been prepared as a living document, and will evolve as understanding develops and as key decisions are made and implemented. The focus for this version is primarily to provide guidance

In order to develop this Network Plan, additional work will be required by the stakeholders to develop the groups of activities identified into fully-scoped packages for RLTP and NLTP. The Future Proof Technical Implementation Group will continue to play a key role in the development of the Network Plan throughout this process, with specific issues being worked on jointly between the Transport Agency and the stakeholder concerned.

In order to progress this Network Plan, endorsement will be sought from the appropriate delegation level within the Transport Agency. This endorsement will recognise that the Network Plan highlights opportunities for further optimisation of existing planning and transport strategies and packages, and the Transport Agency will work collaboratively with the stakeholders concerned in achieving this.

All future updates to the Network Plan will be carried out in consultation with the Future Proof Transport Reference Group and key stakeholders to continue collaboration in progressing the critical issues for the Expressway.

Future reviews of the Network Plan will be nominally on a two-yearly basis, unless prompted by significant changes in policy direction or major, unforeseen land use changes, although minor updates may be undertaken in between reviews. An updated action plan for this version will be developed with the Future Proof Technical Implementation Group to focus on the actions required for implementation and allow regular monitoring of progress by that group in between further reviews of the document. In addition, reporting on progress of the Waikato Expressway implementation (via the monthly and quarterly monitoring reports) will be monitored to ensure the Network Plan reflects any significant changes.

6.5 Monitoring

Monitoring implementation of the Network Plan includes monitoring progress against actions identified, and will feed back into future reviews of the plan and monitoring against the Expressway objectives. The monitoring of progress against actions will be undertaken jointly with key stakeholders, through the Future Proof Technical Implementation Group. To assist in managing actions arising from the Network Plan, a list of actions will be prepared jointly by the Transport Agency and Future Proof TIG.

Monitoring against the outcomes sought from the Waikato Expressway and associated transport networks is also required. A framework for monitoring of the Waikato Expressway RoNS outcomes has been developed through the preparation of an Enhanced post-Implementation Review document, and monitoring for Network Plan purposes will rely primarily on this framework, since the objectives for the RoNS and the Network Plan are the same. While further development of the EPIR is required regarding the specific data to be captured, the areas under consideration for monitoring, and examples of the data relevant to each objective, are:

Enhancing inter regional and national economic growth and productivity

It is proposed that the individual RoNS effect on this objective would be estimated by Infometrics from changes in land values and income.

Land value data is available at a 'fine' spatial level from Statistics New Zealand and Quotable Value Ltd. Spatial employment and earnings data is available from the Statistics New Zealand Linked Employer-Employee Dataset (LEED).

A "panel data" (trend and control data) set could be analysed econometrically to isolate the effects of the Waikato Expressway project.

Improving journey time reliability and relieving congestion through the main urban centres along SH1

It is likely that this monitoring will involve the use travel time and travel time variability surveys and traffic volume data.

Improving safety and reducing crashes on regional arterials including SH1

The improvement of safety and the reduction of crashes on regional arterials including SH1 can be evaluated using CAS data. This data is currently being collected, hence it is not necessary to carry out a specific baseline exercise.

It is not anticipated that additional safety indicators will be required at this stage.

Focusing freight movement onto SH1 rather than upgrading alternative routes

Shifts in freight movements are likely to be monitored through the use of:

- Traffic volume data (including composition);
- Travel Time/ Travel time variability data, for example regional congestion surveys; and
- GPS data from freight operators.

Providing improved local network operation and opportunities for improved urban design, travel choice and community connectivity within the major urban areas bypassed by the Expressway

Development of this area of monitoring will be more challenging, and needs close coordination with monitoring carried out by other stakeholders to this plan since many of the indicators will be relevant to implementation of other strategies (including the RLTS). Possible indicators include:

- Land use proposals;

- Community outcomes; and
- Mode split/ volumes of pedestrians and cyclists/ PT mode share (for "travel choice").

The priority for Network Plan monitoring is to determine the indicators required, then determine base line values for those indicators to allow comparison with later stages of implementation. Where data is not already being collected, there is clearly a greater urgency to ensure that meaningful base line data is available.

It is recognised that, since a number of Expressway sections are currently under construction, the base line situation will not fully reflect the "before Expressway" situation, however the effects on present day traffic patterns are considered to be relatively minor at the time of writing.

Responsibility for monitoring

Responsibility for monitoring is shared between the key stakeholders. This recognises that there are relevant monitoring processes existing or under development, that are undertaken by parties other than the Transport Agency, including implementation of:

- The Future Proof growth management strategy,
- The Regional Policy Statement, Waikato RLTS 2011-2041 and the Waikato Regional Public Transport Plan; and
- Local strategies, including Access Hamilton, Waipa 2050 and district level walking and cycling strategies.

In the interests of avoiding duplication of resources, the Transport Agency will work with stakeholders to coordinate the development of monitoring for the Network Plan and share data within these existing monitoring frameworks.

APPENDIX A

List of documents

Appendix A – Documents

- 1 Future Proof Partners, 2009. Future Proof Growth Strategy and Implementation Plan. Hamilton: Future Proof Partners
- 2 Hamilton City Council, 2010. Hamilton Urban Growth Strategy. Hamilton: Hamilton City Council.
- 3 KiwiRAP Partners (NZAA, MoT, NZTA, ACC, NZ Police), 2010. How Safe are our Roads? Star Rating New Zealand's State Highways 2010. Wellington: KiwiRAP Partners.
- 4 Land Transport Management Act 2003. Wellington: Ministry of Transport.
- 5 Ministry of Transport, 2008. The New Zealand Transport Strategy 2008. Wellington: Ministry of Transport.
- 6 Ministry of Transport, 2009. Government Policy Statement on Land Transport Funding, 2009/10 – 2018/19. Wellington: Ministry of Transport.
- 7 Ministry of Transport, July 2011. Government Policy Statement on Land Transport Funding, 2012/13 – 2021/22. Wellington: Ministry of Transport.
- 8 Ministry of Transport 2011. Engagement Document for Government Policy Statement on Land Transport Funding, 2012/13 – 2021/22. Wellington: Ministry of Transport.
- 9 New Zealand Transport Agency, 2009. National Land Transport Programme 2009 – 2012. Wellington, New Zealand Transport Agency.
- 10 New Zealand Transport Agency, 2012. National Land Transport Programme 2012 – 2015. Wellington, New Zealand Transport Agency.
- 11 Waikato District Council, 2009. Building our Future – Long Term Community Council Plan 2009 – 2019. Ngaruawahia: Waikato District Council.
- 12 Waikato District Council, 2009. Waikato District Growth Strategy. Ngaruawahia: Waikato District Council.
- 13 Waipa District Council, 2010. Waipa 2050 – Waipa District Growth Strategy. Te Awamutu: Waipa District Council.
- 14 Waikato Regional Council, 2000. Waikato Regional Policy Statement 2000. Hamilton: Waikato Regional Council
- 15 Waikato Regional Council, 2006. Waikato Regional Land Transport Strategy 2006 – 2016. Waikato Regional Council.
- 16 Waikato Regional Council, 2007. Waikato Regional Passenger Transport Plan 2007 – 2010. Waikato Regional Council.
- 17 Waikato Regional Council, 2009. Waikato Regional Land Transport Programme 2009/10 – 2011/12. Waikato Regional Council.
- 18 Waikato Regional Council, 2010. Proposed Waikato Regional Policy Statement 2010. Waikato Regional Council.
- 19 Waikato Regional Council, 2011. Waikato Regional Land Transport Strategy 2011 – 2041. Waikato Regional Council.
- 20 Waikato Regional Council, 2011. Waikato Regional Public Transport Plan 2011 - 2021. Waikato Regional Council.
- 21 Waikato Regional Council, 2012. Waikato Regional Land Transport Programme 2012/13 – 2014/15. Waikato Regional Council.
- 22 Waikato Regional Council, 2013. Draft Waikato Regional Road Safety Strategy 2013 – 16. Waikato Regional Council.
- 23 District Plans
- 24 Franklin District Growth Strategy
- 25 NZ Transport Agency Board papers
- 26 Relevant non statutory studies and strategies, including:
- 27 Waikato Expressway Strategy Evaluation

- 28 Waikato Expressway Project Summary
- 29 SH1 Corridor Plan (in draft)
- 30 Waikato Inter-Regional Transport Study (2009)
- 31 Access Hamilton Integrated Transport Strategy
- 32 Greater Hamilton Arterial Network Plan (unpublished)
- 33 Waipa Integrated Transport Strategy
- 34 Waikato Regional Road Safety Strategy
- 35 Tahuna – Ohinewai road strategic study (MPDC – 2010)
- 36 Future Proof Southern Sector Study
- 37 Northern Growth Corridor – Memorandum of Understanding
- 38 Future Proof business land review
- 39 Future Proof Waikato Expressway Land Use Pressures Analysis (2011)
- 40 Western Corridor Development Strategy
- 41 Local Authorities’ Ten Year Plans 2009-19
- 42 Local Authorities’ Long Term Plans 2012 – 2022
- 43 Upper North Island Freight Story (2013) - Upper North Island Strategic Alliance

APPENDIX B

National Policy Context.

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Appendix B – National Policy Context

The Land Transport Management Act, 2003 (LTMA)

The LTMA directs the planning, funding and management of land transport. The purpose of the Act is to contribute to an effective, efficient, and safe land transport system in the public interest. The LTMA requires that regional land transport plans submitted to a Regional Council must:

- be satisfied that the regional land transport plan contributes to the purpose of the LTMA; and is consistent with the GPS on land transport; and
- have considered alternative regional land transport objectives that would contribute to the purpose of the LTMA; and the feasibility and affordability of those alternative objectives; and
- have taken into account any national energy efficiency and conservation strategy, relevant national policy statements and any relevant regional policy statements or plans that are for the time being in force under the Resource Management Act 1991; and the likely funding from any source.
- The New Zealand Transport Strategy 2008 (NZTS)

The NZTS is a non statutory document and provides a long term aspirational policy context. The document contains national targets that are organised around the five objectives and outcome areas under the LTMA.

The Government Policy Statement (GPS)

As a statutory document prescribed by the LTMA, the GPS provides guidance on short to medium term¹¹ land transport planning and funding and identifies “Ensuring Integrated Planning” as key means to contribute to the efficient use of public funds and achieve the government’s objectives for transport and New Zealand. More specifically, the GPS seeks to ensure that:

- Future growth is considered in planning the transport system;
- Future transport corridors are safeguarded from other development;
- Growth meets the cost of the infrastructural impact such growth generates; and
- Better integration between and within modes.

NZ Transport Agency “Investment and Revenue Strategy”

The strategy, based on the GPS, is a prioritisation tool directing investment into activities that make the most significant contribution to one or more of:

- RoNS and local road critical to RoNS;
- Key freight and tourism routes;

¹¹ The GPS describes Government’s funding priorities over a six year period, and is reviewed at least every three years.

- Key urban arterials;
- Public transport initiatives to ease severe congestion;
- ‘model’ urban walking and cycling communities;
- Making better use of the existing transport infrastructure; and
- Optimising the existing capacity of, and service levels on, highly trafficked roads.

When approving funding for transport activities or packages of activities, the Transport Agency is required to ensure they:

- Give effect to the GPS;
- Take account of any relevant strategies or policies (eg RLTS);
- Contribute to the LTMA’s purpose and objectives; and
- Comply with any consultation required by the LTMA.

The Transport Agency uses three key assessment criteria to determine whether a transport activity will be included in the National Land Transport Programme (NLTP) and, if so, the degree to which it will be prioritised within the NLTP, and then whether it will be approved for funding. The criteria are:

- Strategic fit;
- Effectiveness; and
- Economic efficiency.

Detailed definitions of the assessment criteria are included in the Transport Agency’s Planning, and Investment Knowledge Base (www.pikb.co.nz).

APPENDIX C

Waikato Expressway Strategic Context.

Appendix C – Waikato Expressway Strategic Context

The contribution of the Waikato Expressway to national transport outcomes is described in the Waikato Expressway Strategic Evaluation (WESE, 2009), and the Waikato Inter-Regional Transportation Study (WIRTS, 2009).

Waikato Expressway Strategic Evaluation (WESE)

The WESE study assesses the impacts of the full package of Waikato Expressway projects, and also includes a detailed consideration of the economic contribution associated with the Expressway. WESE was developed to provide a strategic framework to support the business case for further development of the Expressway. This was provided within the context of National and Regional economic growth factors and considered land use development trends in and around Hamilton, as well as other major growth centres such as Auckland and Tauranga.

WESE was initially developed in late 2007 to support the case for Ngaruawahia Bypass and was subsequently updated in early 2009 to create an overall Expressway Strategy integrating land use (by that time underpinned by the Future Proof strategy) and transportation. This 2009 updating was supported by a separate but inter-related report referred to as WEGI (which was “The Waikato Expressway’s contribution to the proposed GPS Impacts”). The WEGI report explored the contribution of the Expressway to the impacts (such as economic growth and productivity) sought by the May 2009 Government Policy Statement on Land Transport Funding (GPS). The WEGI report was underpinned by direct economic impacts (as in traditional transportation benefit cost evaluation) and indirect economic impacts utilising agglomeration economics and international research on wider economic benefits of major transportation provision.

The expected outcome was that the Expressway will:

- Improve international trade by providing quicker and more reliable connections between the Waikato and neighbouring regions to the Ports of Auckland, Port of Tauranga and Auckland International Airport. It will also help to improve the perception overseas visitors have of New Zealand and the tourism experience;
- Reduce business costs, which may allow businesses to trade over a wider area, opening markets up to more competition. Greater competition is likely to result in greater choice, reduced prices and improved service levels; and
- Make the Waikato more attractive to international flows of finance, people and other resources.

Both WESE and WEGI reports introduce the concepts of Wider Economic Benefits (WEBs) and these have been further developed for all the RoNS, with the outcome being an effective increase on the traditional Benefit to Cost Ratio (BCR) of at least 20%.

Waikato Inter-Regional Transport Study (WIRTS)

In contrast, WIRTS Study included an assessment of 14 key inter-regional transport corridors passing through the Waikato Region. Of these, the corridors making the greatest contributions to GPS and NZTS outcomes were the “Auckland - Hamilton” corridor, and the “Auckland – Areas south of Waikato” corridor. In essence this is the SH1 Corridor encompassing the Waikato Expressway.

Although the WIRTS assessment was initially carried out against the NZTS (2008) and the first GPS (2008), a re-assessment was made following publication of the current GPS in 2009. This assessment scored each of the corridors against only the freight, travel times and reliability, and safety criteria to reflect the change in investment emphasis and transport impacts signalled in the GPS. The re-assessment still identified the “Auckland – Hamilton” and “Auckland – Areas south of Waikato” corridors as making the greatest contributions under those criteria.

The WIRTS study also drew a number of conclusions which are relevant to the Network Plan. Since the study was multi-modal, the “corridors” evaluated included consideration of rail, sea freight and public transport/ Walking and cycling contributions, where these were applicable. Sensitivity testing showed that for inter-regional transport, the assessment of corridors was not particularly sensitive to even quite stretching modal shifts, nor to substantial increase in the cost of fuel.

It is also worth noting that in the initial assessment, the WIRTS found that of the Waikato’s inter-regional corridors, the Auckland – Hamilton corridor had the greatest potential contribution to public transport, walking and cycling, and accessibility objectives. This is directly relevant to the Waikato Expressway and this Network Plan.

APPENDIX D

Optimisation Methodology.

Appendix D – Optimisation Methodology

Implementing the Waikato Expressway will have measurable and predictable effects on local networks (both positive and negative). How these effects are managed will affect the amount of benefit gained by NZ from the RoNS investment, and also directly affects how much benefit will be realised by communities directly associated with the Expressway.

Focus for Integration and Optimisation

The purpose of the Network Plan is to support ongoing integrated planning and decision making for the Waikato Expressway. There are two areas of focus for integration and optimisation; the Waikato Expressway and the wider road network.

The opportunities for integration and optimisation have been identified by:

- Defining the area and roads of interest and significance;
- Recognising planned land use and infrastructure activities;
- Identifying issues, gaps and new activities; and
- Assessing the level of optimisation contributed by each activity.

Roads and Area of Interest

The area and roads of interest were determined by traffic modelling to assess the magnitude of change in traffic volume and where this change occurs. The following five scenarios were modelled using the Waikato Regional Transport Model (WRTM) to assess the impact of the Expressway development on the network.

Table D.6.1: Modelling summary

Scenario		Modelling	2006	2021	2041
A	Do nothing	Do nothing network modelled in both 2006 and 2021	✓	✓	
B	Test staging effects on Hamilton/ Waikato network	Network modelled without the Hamilton section but all other sections of the Expressway complete		✓	
C	Expressway fully completed	Network modelled with the Expressway fully completed (including Hamilton and Cambridge sections)		✓	✓
D	Test staging effects on Cambridge network	Network modelled with the Cambridge, Tamahere and Te Rapa Sections but excluding Hamilton, Huntly, Rangiriri,		✓	

Scenario		Modelling	2006	2021	2041
		Longswamp			
E	Expressway fully completed – revised interchanges	As for Scenario C but with revised interchange arrangement. Interchange at Greenhill Road and SH26 replaced with a full diamond interchange located adjacent to Fifth Ave/Wairere Drive with a connection to SH1B in the east.		✓	

Roads and corridors are of interest where the change in daily traffic volume is greater than 10% when comparing the network with and without the Expressway.

The area of interest was determined using select link diagrams. These diagrams show the origin and destination of traffic at selected locations. The area of interest is generally limited to where there are 100veh/day using the Expressway.

North of Hampton Downs the Expressway is generally complete and there was little change anticipated in traffic volumes based on the limited land use changes that were currently planned when Version 1.0 was developed. However it is recognised that the understanding of planning needs in this area is now changing, for example through the inclusion of some areas from Franklin District into the Waikato District, which includes the Pokeno Plan Change area. The integration of with the Auckland Spatial Plan and land use pressures within the north Waikato are key issues for Version 3.0 of the Network Plan.

Although the SH2/27 corridor is outside the area of interest it is a competing corridor with the potential to adversely affect the Expressway. It is important that activities on this corridor do not adversely affect the Expressway by attracting inter-regional trips.

In summary, area of primary interest for the Network Plan extends from Te Kauwahta and Rangiriri in the north to south of Cambridge; and from SH39 in the west to SH1B in the east.

Activity Identification and Grouping

The activities included in the Network Plan 1.0 were identified using the following process:

- Initial briefing of the Future Proof Transport Reference Group (TRG) (now the Technical Implementation Group) to outline the purpose of the Network Plan and to gain initial list of issues and impacts. These issues are summarised in the following sections;
- Assessment of current NLTP and LTCCPs to identify activities planned for the next 3 and 10 years periods. These form the majority of the activities identified by the Network Plan; and
- Traffic modelling using the Waikato Regional Transport Model (WRTM) to identify roads and corridors where significant changes in traffic patterns (volumes and level of service) are expected.

Individual meetings with Waikato DC, Waipa DC, Matamata-Piako DC and HCC to:

- Discuss the impact that development of the Expressway will have on the local road networks (changes in traffic patterns, level of service, severance, etc);
- Identify any additional local land use and infrastructure activities; and
- Identify gaps that should be addressed to optimise investment in the local road network and Expressway.

Follow-up workshops with the TRG to report back on progress and issue identification and optimisation.

The Network Plan combines together similar and related activities into 'groups'. These groups are similar but different to 'packages' as defined in the Transport Agency Programme, Planning and Funding Manual (PPFM). Section C3.4 of the PPFM describes packages as:

- A set of interdependent and complementary activities that produces synergies between the activities; and
- Packages should address clearly identified land transport opportunities, issues or problems.

The groups identified by the Network Plan are intended to combine together similar and related activities to assist with implementation of the Network Plan. A number of these groups form logical packages that require further development before they can be submitted to the Transport Agency to consider for endorsement.

For example, the SH21 and Airport Area group identifies a number of land use and infrastructure activities involving Waipa DC, developers and the Transport Agency. The group has been developed to enable these activities to be coordinated to optimise their contribution to both the Expressway and the local network.

The groups are generally based upon:

- Existing packages identified in local transport strategies and endorsed by the Transport Agency, for example the Southern Links package;
- Activities with spatial/geographical commonality, for example the Cambridge area;
- Activities addressing issues specific to a road controlling authority, for example state highway revocation; and
- Activities addressing issues specific to the Waikato Expressway, for example expressway connectivity.

Each group has a summary table describing the reasons for the group, issues and opportunities, contribution to optimisation and key actions. The associated activities are described in a separate table which described the activity and its intervention hierarchy and optimisation. These are available as a separate document, however tables of the activities assessed as contributing significantly to optimisation of the Expressway and associated networks are included under each section below.

Intervention Hierarchy

Optimisation of associated activities has considered the type of activity with respect to the intervention hierarchy. This requires an approach to land use and transport planning that considers lower-cost, land use and demand focused interventions before seeking to understand what additional infrastructure requirements may be. Specifically, the intervention hierarchy comprises:

Table D.2: Intervention Hierarchy

NLTF Investment	Intervention Type	Order
Low Cost	Integrated Planning	Consider first
	Transport and land use planning are closely related and must be considered together. An integrated approach to planning requires that consideration is given at an early stage to land use alternatives and options aimed at reducing demand for travel before new infrastructure proposals are developed.	
	Demand management	
	In addition to addressing the demand side through land use alternatives, demand for use of the network can be addressed through a range of supply side measures, including public transport, walking and cycling and travel plans.	
	Best use of existing network.	
	The existing transport network represents a considerable investment. Maximum value can be gained from this investment through relatively minor, low cost interventions such as improved road markings, signage and improved phasing of signalised intersections.	
	New infrastructure	
High Cost	In considering investment in major new infrastructure, the desired levels of service for the network must be matched against affordability.	Consider last

Optimisation

As described above the Network Plan identifies the contribution that each activity makes towards integration and optimisation by assessing the contribution towards Expressway Optimisation and Network Optimisation. This assessment is in addition to the standard assessment profile (strategic fit, effectiveness and economic efficiency).

Expressway Optimisation and Network Optimisation are described as:

Expressway Optimisation:

- Assesses contribution of the activity to the objectives of the Expressway;

- Likely to be restricted to section of the Expressway, roads directly connected to the Expressway or serving a parallel function; and
- Assist in Transport Agency and NLTP funding assessments

Network Optimisation:

- Assesses the contribution of the activity to the wider network;
- Is likely to include a broader range of activities including walking and cycling, passenger transport and amenity, etc.; and
- Inform LTCCP and RLTP formulation and assist RTC decision making.

Network Plan – Criteria used to Define Contribution to Optimisation

The PPFM uses an assessment of strategic fit to ensure that activities align with the Transport Agency’s strategic investment direction. This approach has been used to evaluate the Network Plan by qualitatively assessing how well each activity matches the strategic fit factors and therefore how significant a contribution activities could make to optimising the Waikato Expressway and wider network.

The LTMA objectives and GPS impacts give direction to transport planning and development. The objectives of LTMA and GPS are consistent. The LTMA provides direction to the RLTS, RLTP, local transport strategies and LTCCPs. The GPS sets short-medium term impacts and lists the RONS as national priorities. The objectives of the Waikato Expressway are consistent with the GPS impacts.

A series of attributes have been used to assess the strategic fit of the identified activities. In addition to the PPFM strategic fit criteria, the Network Plan considers the contribution to optimisation from amenity, asset management, passenger transport and walking and cycling. These attributes are important for developing an integrated network and are recognised in regional and local strategies. However, they do not make a significant contribution to the effectiveness of the Waikato Expressway. This is reflected in the definition of the network (refer to Section 2.3) and the level of optimisation provided by these attributes as identified in the following table.

To avoid confusion with the H-M-L scale of the assessment profile, the Network Plan uses a numerical scale (1 = high, 2 = medium, 3 =low and blank =nil) to assess the contribution of the activity to Expressway Optimisation and Network Optimisation.

Table D.3: Assessment Framework

LTMA Objectives		Assisting economic development Assisting safety and personal security Improving access and mobility Protecting and promoting public health Ensuring environmental sustainability							
Desired GPS Impacts		Improvements in Journey Time Reliability	Ease Severe Congestion	More Efficient Freight Supply Chains	Better Use of Existing Transport Capacity	Better Access to Markets and	Secure and Resilient Transport Network	Reduction in Deaths and Serious Injury	More Transport Choices
Contribution to Waikato Expressway Optimisation (refer to Section 3.2)		✓✓	✓✓	✓✓	✓	✓✓	✓	✓✓	✓
Contribution to Network Optimisation (refer to Section 6 for regional and local strategic context)		✓✓	✓	✓	✓	✓✓	✓	✓	✓✓
Strategic Fit Criteria	Optimisation Attribute								
RONS	Economic Development Level of Service/ Efficiency	1	1	1	1	1	2	1	3
Local Roads Critical to RONS		2	2	2	2	2	2	2	3
Freight Routes		1	2	1	3	1	1		
Tourism Routes		3	3			3			
Critical Urban Arterials		1	1	1		1	2		3
Safety	Safety							1	
Generally, these attributes do not achieve a high strategic fit but are important for network optimisation	Amenity				3				3
	Asset Management				2		2		
	Passenger Transport					3	3		1
	Cycling								1

✓ = standard contribution ✓✓ = significant contribution

1, 2, 3 = High, Medium, Low; Assessment of how dealing with the strategic fit issue and/or optimisation attribute can contribute to the Waikato Expressway and the wider Network.

APPENDIX E

Group and Package Summaries.

Appendix E – Group and Package Summaries

This section provides an overview of each of the indicative groups and packages of activities associated with the Waikato Expressway.

All Sectors

Table E.1: Group 10

Group-10		Minor Road Improvements	
Objective	Implementation of minor road improvements to enhance the performance of the local network in response to changed travel patterns that arise from implementation of the Waikato Expressway.		
Reasons for Group	Due to severance of local roads and change in traffic patterns following construction of the Expressway, it is likely minor improvements will be required at a number of local intersections, particularly in rural areas. For example, changes in intersection priority may be required.		
References	Access Hamilton, WITS, WILTS		
Contribution to Optimisation	Minor road improvements are likely to improve the amenity, safety and efficiency of the local road network where it is subject to changed traffic patterns. Providing an effective local road network will reduce the potential impact of 'local' trips on the Expressway.		
Key Actions	Local authorities - identify specific locations where minor improvements maybe required. NZTA - where identified local road improvements are to be developed as part of Expressway Design.		
Priority and Timing	7-10 years Priority C		
Issues and Opportunities	Development of Integrated Transport Strategy for Waikato DC		
	Hamilton District Plan Review		
	Longswamp area: Local road connections needed to maintain strategic benefits of the Expressway and ensure integrated planning.		
	Northern River Crossing		
	Planning for future river crossings within Cambridge		
	Te Kowhai: network connectivity including future SH39 alignment		
Activity ID	Activity Name	Activity Phase	AO
214028	2012 Intersection Optimisation – Signal Comms and Monitoring	Construction	Hamilton City Council
213904	2012 Strategic Network Optimisation	Construction	Hamilton City Council
215022	Cambridge Bypass Old State Highway Intersection Improvements (2014) – SH1/1B	Construction	Waipa District Council
215023	Cambridge Bypass Old State Highway Intersection Improvements (2015) – Shakespeare St / Tirau Road	Construction	Waipa District Council
215024	Cambridge Bypass Old State Highway Intersection Improvements (2016) - Gateways	Construction	Waipa District Council
LTP09	Cambridge Bypass Roading Improvements (local share)	Implementation	Waipa District Council
LTP10	Cambridge Gateways Project (local share)	Implementation	Waipa District

			Council
215057	Cambridge Post Bypass Traffic Options Plan	Study	Waipa District Council
NEW06	Extension of Resolution Drive to connect with Hamilton Section of the Expressway.	New Activity	Hamilton City Council
NEW13	Peachgrove and Hukanui Intersection Upgrades (unfunded)	New Activity	Hamilton City Council
192806	Regional Road Safety Strategy	Study	Waikato Regional Council
215000	Te Rapa Road urbanisation	Design	Hamilton City Council
215001	Te Rapa Road urbanisation	Construction	Hamilton City Council
215021	Te Rapa Road urbanisation	Construction	Hamilton City Council

Table E.2: Group 11

Group-11		Expressway Strategy and Services	
Objective	Coordination of network wide projects to enhance the performance of the Waikato Expressway.		
Reasons for Group	A number of activities have been identified along the length of the Expressway that require coordination across the various road controlling authorities to ensure consistent treatment of issues, e.g. HPMV permitting, signage, provision of motorists services and stock effluent facilities. These activities are also likely to require significant consultation with road users, developers and adjacent land owners.		
References	Draft Waikato Regional State Highway Strategy, HCC Proposed District Plan		
Contribution to Optimisation	These Expressway wide activities will improve the level of service and facilities for users of the Expressway. Motorist services will enhance the attractiveness of the route.		
Key Actions	<p>NZTA and local authorities - continue to develop and implement the HMPV permitting system.</p> <p>NZTA - continue development of VDM rule including 50MAX (national initiative).</p> <p>NZTA and local authorities - work with developers to ensure that motorist services are provided at locations where they will enhance the Expressway.</p>		
Priority and Timing	< 3 years Priority B		
Issues and Opportunities	Cambridge Section - Potential for motorist services near Victoria Road Interchange.		
	Future planning for next RONS		
	Impact of High Productivity Motor Vehicles (HPMVs)		
	Ngaruawahia and Huntly Sections - Consider potential for motorist services		
Activity ID	Activity Name	Activity Phase	AO
209700	09-12 Roding - HPMV Route Assessment	Investigation	Waipa District Council
214940	2012 Hamilton Strategic Network Signage	Construction	Hamilton City Council

194166	Inter-Regional freight and passenger routes Study	Study	Waikato Highway & Network Operations
NEW09	Location and form of motorist services to be agreed	New Activity	NZTA
196125	Network Strategy Development	Study	Waikato District Council
NEW05	Possible use of road user charges to enforce road hierarchy	New Activity	NZTA
194168	Safe and sustainable Freight Access Strategic Study	Study	Waikato Highway & Network Operations
198256	State Highway Travel Demand and Optimisation Strategies	Study	Waikato Highway & Network Operations
NEW01	Strategy for Expressway and destination signage is required to ensure consistency of treatment along the Expressway.	New Activity	NZTA
NEW08	The Land Transport Rule: Vehicle Dimensions and Mass Amendment 2010 allows certain heavier and longer vehicles on some routes subject to a permit system. Development of 50MAX initiative	New Activity	NZTA
162049	Waikato Regional Industry Transport Study	Investigation	Waikato Regional Council

Table E.3: Group 12

Group-12 Expressway Connectivity: Hamilton Section	
Objective	Optimise connectivity between Hamilton City, Waikato Expressway and destinations to the east within Waikato District.
Reasons for Group	Interchange connectivity along the Hamilton Section has been investigated and an optimised approach agreed between NZTA and stakeholders. There are a number of other related connectivity and land use issues that require consideration, including: Ruakura Structure Plan, Tamahere Structure Plan, timing of Resolution Drive and Northern River Crossing, and impacts of changed travel patterns on corridors such as Ruakura Road.
References	Future Proof, Access Hamilton, WITS, HCC Proposed District Plan
Contribution to Optimisation	Optimising connectivity between the Expressway and local road network will ensure appropriate and efficient use of both networks. The activities within this group will optimise access from the Expressway to key markets and transport nodes to facilitate economic growth and development.
Key Actions	NZTA - progress alterations to designation of the Hamilton Section as required. Local authorities - manage land use and infrastructure development adjacent to proposed interchanges
Priority and Timing	< 3 years Priority A
Issues and	Cambridge Section - Potential for motorist services near Victoria Road Interchange. Coordination of infrastructure changes and land use pressures in Hamilton South, including

Opportunities	Tamahere		
	Future planning for next RONS		
	Impact of High Productivity Motor Vehicles (HPMVs)		
	Integration with Auckland Spatial Plan and Waikato District Boundary Changes and planning for land use pressures in north Waikato.		
	Longswamp area: Local road connections needed to maintain strategic benefits of the Expressway and ensure integrated planning.		
	Northern River Crossing		
	Optimise network connectivity between Hamilton City, Waikato Expressway and destinations to the east		
	Proposed development at Ruakura with an initial focus on freight and logistics and incorporating residential & commercial development		
Activity ID	Activity Name	Activity Phase	AO
209700	09-12 Rooding - HPMV Route Assessment	Investigation	Waipa District Council
214908	2012 Resolution Drive - Expressway	Investigation	Hamilton City Council
214909	2012 Resolution Drive - Expressway	Design	Hamilton City Council
214910	2012 Resolution Drive - Expressway	Construction	Hamilton City Council
215056	2012 Resolution Drive - Expressway	Property	Hamilton City Council
215026	Cambridge Bypass - Hautapu Interchange	Construction	Waipa District Council
215057	Cambridge Post Bypass Traffic Options Plan	Study	Waipa District Council
174660	Hamilton Southern Links	Design	Waikato Highway & Network Operations
174661	Hamilton Southern Links	Construction	Waikato Highway & Network Operations
197204	Hamilton Southern Links	Property	Waikato Highway & Network Operations
196125	Network Strategy Development	Study	Waikato District Council
145001	Resolution Drive Cycleway Extension	Construction	Hamilton City Council
LU04	Rototuna Structure Plan - Planning	Land Use Planning	Hamilton City Council
LTP04	Rototuna Structure Plan - Rooding	Investigation	Hamilton City Council
LU05	Ruakura Growth Cell - Planning	Land Use	Hamilton City Council

LTP08	Victoria Road, Cambridge – Interchange Contribution	Implementation	Waipa District Council
214916	Waikato/BOP Network Plan	Study	Waikato Highway & Network Operations

Table E.4: Group 14

Group-14		Rail Activities	
Objective	Optimising appropriate opportunities for increased utilisation of and connectivity between the rail and road networks resulting from implementing the Waikato Expressway.		
Reasons for Group	<p>The rail network is a key corridor for freight movements between the major urban areas and key markets of Hamilton, Tauranga and Auckland.</p> <p>There are potential benefits from the rail network including increased economic activity and opportunities to integrate road and rail freight solutions across a significant section of the Upper North Island.</p> <p>The road and rail networks serve complementary freight and passenger functions.</p>		
References	Draft Regional Rail Strategy, RLTS, Waikato Inter-Regional Transportation Study, Ruakura Structure Plan		
Contribution to Optimisation	<p>The group will develop and enhance the rail corridor which is a key freight route. These activities will optimise existing and future connections between the road and rail networks by managing land use, identifying appropriate locations for freight nodes and infrastructure improvements (electrification, double tracking, passing loops, etc.).</p> <p>There are opportunities for passenger and freight rail connections from Hamilton to the airport.</p>		
Key Actions	<p>Kiwi Rail - manage and implement efficiency improvements.</p> <p>Local Authorities - manage development and access to existing road/rail connections, e.g. Crawford Street in Hamilton</p> <p>Waikato DC - advance opportunities to enhance passenger services to Tuakau</p>		
Priority and Timing	7-10 years Priority C		
Issues and Opportunities	Extension of existing passenger transport services from Pukekohe		
	Future options for rail at Hautapu		
	Land use changes in vicinity of Hamilton International Airport		
	Proposed development at Ruakura with an initial focus on freight and logistics and incorporating residential & commercial development		
Activity ID	Activity Name	Activity Phase	AO
214992	Commuter Rail to Auckland Pilot	Construction	Waikato Regional Council
LU25	Hautapu Branch Rail Line	Land Use Planning	Waipa District Council
NEW14	Infrastructure to Support Commuter Train to Auckland (unfunded)	Unfunded	Hamilton City Council
194166	Inter-Regional freight and passenger routes	Study	Waikato Highway & Network Operations

NEW02	Potential connection to the Hamilton Airport for passenger and freight	New Activity	Kiwirail, Waikato RC
NEW04	Potential for rail connection to be developed as part of Horotiu North development	New Activity	Kiwirail, Waikato RC
NEW03	Potential for rail connection to be developed as part of Ruakura structure plan	New Activity	Kiwirail, Waikato RC
197602	Regional Public Transport Plan	Study	Waikato Regional Council
192755	Regional Rail Strategy (2015)	Study	Waikato Regional Council
LU05	Ruakura Growth Cell – Planning	Land Use Planning	Hamilton City Council
194168	Safe and Sustainable Freight Access Strategic Study	Study	Waikato Highway & Network Operations
221951	Tuakau – Pukekohe Rail Service	Construction	Waikato Regional Council
215171	Tuakau Railway Station Upgrade	Construction	Waikato District Council
LTP14	Tuakau Train Station Property	Design and Construction	Waikato District Council

Table E.5: Group 19

Group-19	Passenger Transport in the Future Proof Sub-Region
Objective	"An integrated public transport system that provides a reliable and user-friendly alternative to private vehicle use, improves access to essential services, grows patronage, is sustainable and is affordable for users and funders." (Vision of the RPTP)
Reasons for Group	<p>The RPTP identifies the key focus areas as integrated planning, service optimisation, access needs of rural communities, serving public growth areas, integration of service delivery and infrastructure provision, marketing and farebox recovery.</p> <p>The Future Proof Transport Reference Group has identified that passenger transport can contribute to reducing local trips on the Expressway between Hamilton, Tamahere and Cambridge.</p> <p>Access Hamilton identified that the City cannot build its way out of congestion, therefore passenger transport is important for providing access to the Hamilton CBD in an increasingly congested urban environment.</p>
References	RPTP, RLTS, Future Proof, Access Hamilton, WITS, WILTS
Contribution to Optimisation	Reducing local trips on the Expressway will maintain a higher level of service for longer on the Expressway
Key Actions	<p>Waikato RC - plan and provide efficient passenger transport services to the Hamilton CBD from within Hamilton, Cambridge and Tamahere and other rural towns.</p> <p>HCC, Waipa DC and Waikato DC - integrate the provision of infrastructure and services in partnership with Waikato RC</p>
Priority and Timing	< 3 years Priority B
Issues and Opportunities	<p>Ngaruawahia: Anticipated population and employment growth</p> <p>Huntly: Anticipated population and employment growth</p> <p>Extension of existing passenger transport services from Pukekohe</p> <p>Future options for rail at Hautapu</p>

Coordination of infrastructure changes and land use pressures in Hamilton South, including Tamahere			
Activity ID	Activity Name	Activity Phase	AO
213840	2012 Access Hamilton Strategy and Strategic Network	Study	Hamilton City Council
220948	2012 Hamilton Integrated Transport Improvements	Implementation	Hamilton City Council
191244	2012 Peachgrove, Hukanui, Tramway Corridor Interventions	Investigation	Hamilton City Council
191251	2012 Peachgrove, Hukanui, Tramway Corridor Interventions	Design	Hamilton City Council
191252	2012 Peachgrove, Hukanui, Tramway Corridor	Construction	Hamilton City Council
213905	2012 Strategic Bus Network – Prioritisation	Design	Hamilton City Council
215072	2012 strategic Bus Network – Prioritisation	Construction	Hamilton City Council
214992	Commuter Rail to Auckland Pilot	Construction	Waikato Regional Council
221090	Electronic Ticketing System Enhancements for PT	Implementation	Waikato Regional Council
NEW14	Infrastructure to Support Commuter Train to Auckland (unfunded)	New Activity	Hamilton City Council
214994	New Rural PT Bus Services	Construction	Waikato Regional Council
NEW02	Potential connection to the Hamilton Airport for passenger and freight	New Activity	Kiwirail, Waikato RC
214077	Public Transport Programme 2012/15 (bus services)	Operations	Waikato Regional Council
214079	Public Transport Programme 2012/15 (facilities – operations and maintenance)	Operations	Waikato Regional Council
214085	Public Transport Programme 2012/15 (information – operations and maintenance)	Operations	Waikato Regional Council
214078	Public Transport Programme 2012/15 (passenger ferry)	Operations	Waikato Regional Council
214080	Public Transport Programme 2012/15 (rail services)	Operations	Waikato Regional Council
214084	Public Transport Programme 2012/15 (Total Mobility flat rate)	Operations	Waikato Regional Council
214081	Public Transport Programme 2012/15 (Total Mobility)	Operations	Waikato Regional Council
214082	Public Transport Programme 2012/15 (Wheelchair hoists)	Operations	Waikato Regional Council

Northern Sector

Table E.6: Group 07

Group-07		Future Form and Function existing state highways (Waikato DC – SH1, SH1B and SH39)	
Objective	Ensure that the future form and function of existing State Highway sections in the Waikato District is agreed between Waikato DC and NZTA.		
Reasons for Group	<p>Long sections of state highway (SH1, SH1B, SH39) are expected to be revoked and returned to Waikato DC. Planning and managing this process is important to ensure that Council is prepared for the increased maintenance responsibilities and is well placed to optimise opportunities for improved amenity and access in both urban and rural areas.</p> <p>The future function of the existing state highway alignments may be inconsistent with the current form. Agreements on the future form and function between Waikato DC and NZTA are necessary.</p> <p>Development of the Waikato District Integrated Land Transport Strategy provides an opportunity for Waikato DC to assess the long-term form and function of these corridors.</p>		
References	Waikato District Growth Strategy, Draft Waikato Regional State Highway Strategy, RPTP, WILTS		
Contribution to Optimisation	This group will identify the future form and function of these routes and manage the process of revocation including timing, funding and level of service. Appropriate management of the revoked state highways is expected to optimise the efficiency and effectiveness of both the Waikato District road network and the Expressway.		
Key Actions	<p>NZTA and Waikato DC - Develop and implement revocation (form and function) agreements.</p> <p>Waikato DC - continue structure planning.</p> <p>Waikato DC - complete and implement the Waikato Integrated Land Transport Strategy.</p> <p>NZTA - Support Expressway objectives by encouraging early uptake of new alignments/ Expressway Sections as they are completed</p>		
Priority and Timing	3-6 years	Priority B	
Issues and Opportunities	Development of Integrated Transport Strategy for Waikato DC		
	Future function of SH1B (Waikato District)		
	Future functions of SH1/3/21/39, including Southern Links and Hamilton Western Corridor		
	Huntly: Anticipated population and employment growth		
	Huntly: Future function of existing SH1 alignment		
	Ngaruawahia and Huntly Sections - Consider potential for motorist services.		
	Ngaruawahia: Future function of existing SH1/ SH39 alignments		
	Ngaruawahia: anticipated population growth		
	Rangiriri: improve public access to sites of historic interest		
	Te Kowhai: network connectivity including future SH39 alignment		
	Te Rapa Road (SH1): future function (Te Rapa Bypass to Avalon Drive)		
Activity ID	Activity Name	Activity Phase	AO
LU13	Gordonton Structure Plan – Planning (2019-2022)	Land Use Planning	Waikato District Council
173257	Huntly Section	Investigation	Waikato Highway &

			Network Operations
194405	Huntly Section	Property	Waikato Highway & Network Operations
194521	Huntly Section	Design	Waikato Highway & Network Operations
195982	Huntly Section	Construction	Waikato Highway & Network Operations
LU09	Huntly Structure Plan - Planning (2017-2020)	Land Use Planning	Waikato District Council
215053	Integrated Traffic Studies (WITS)	Study	Waipa District Council
214305	Laxon Rd Realignment (SH39)	Design	Waikato Highway & Network Operations
214306	Limmer Rd Realignment (SH30)	Design	Waikato Highway & Network Operations
214307	Limmer Rd Realignment (SH39)	Construction	Waikato Highway & Network Operations
173224	Long Swamp Section	Investigation	Waikato Highway & Network Operations
173225	Long Swamp Section	Design	Waikato Highway & Network Operations
173226	Long Swamp Section	Construction	Waikato Highway & Network Operations
194966	Long Swamp Section	Property	Waikato Highway & Network Operations
148650	Long Swamp to Rangiriri SI	Design	Waikato Highway & Network Operations
148652	Long Swamp to Rangiriri SI	Construction	Waikato Highway & Network Operations
196125	Network Strategy Development	Study	Waikato District Council
173252	Ngaruawahia Section	Design	Waikato Highway & Network Operations
173253	Ngaruawahia Section	Construction	Waikato Highway & Network Operations
194407	Ngaruawahia Section	Property	Waikato Highway & Network Operations
LU10	Ngaruawahia Structure Plan – Planning (2013-2017)	Land Use Planning	Waikato District Council
164362	Rangiriri Section	Investigation	Waikato Highway & Network Operations
173311	Rangiriri Section	Design	Waikato Highway & Network Operations
173312	Rangiriri Section	Construction	Waikato Highway & Network Operations

194408	Rangiriri Section	Property	Waikato Highway & Network Operations
148612	Rangiriri to South of Ohinewai (Ohinewai Bypass)	Construction	Waikato Highway & Network Operations
NEW10	Revocation of SH39 between Te Kowhai and Ngaruawahia. Assign state highway status to Limmer Road route.	New Activity	NZTA
164333	Te Rapa Section	Investigation	Waikato Highway & Network Operations
173284	Te Rapa Section	Design	Waikato Highway & Network Operations
173285	Te Rapa Section	Construction	Waikato Highway & Network Operations
194409	Te Rapa Section	Property	Waikato Highway & Network Operations
LTP06	Te Rapa Section of Waikato Expressway	Construction	Hamilton City Council

Table E.7: Group 17

Group-17 North Waikato Land Use	
Objective	Integration with Auckland Spatial Plan and Waikato District Boundary changes and planning for growth pressures in north Waikato and southern Auckland.
Reasons for Group	Increased demand due to projected population increase and economic growth to the south of Auckland will cause a reduction in efficiency and safety of transport networks in the northern Waikato area, including the Waikato Expressway and Southern Motorway.
References	Future Proof, Waikato District Growth Strategy, RLTS
Contribution to Optimisation	Land use changes adjacent to the Expressway present opportunities to manage urban growth, optimise connectivity and travel patterns.
Key Actions	Waikato DC - Structure planning for urban areas within the District and management of areas formerly in Franklin DC Future Proof partnership – develop understanding of key planning issues and collaborate with other agencies to develop vision. NZTA - manage connectivity to the Expressway
Priority and Timing	< 3 years Priority A
Issues and Opportunities	Development of Integrated Transport Strategy for Waikato DC Extension of existing passenger transport services from Pukekohe Huntly: Anticipated population and employment growth Huntly: Future function of existing SH1 alignment Integration with Auckland Spatial Plan and Waikato District Boundary changes and planning for growth pressures in north Waikato and southern Auckland. Longswamp area: Local road connections needed to maintain strategic benefits of the expressway and ensure integrated planning. Ngaruawahia and Huntly Sections - Consider potential for motorist services. Ngaruawahia: Future function of existing SH1/ SH39 alignments

Te Kowhai: network connectivity including future SH39 alignment			
Activity ID	Activity Name	Activity Phase	AO
LU13	Gordonton Structure Plan - Planning (2019-2022)	Land Use Planning	Waikato District Council
LU09	Huntly Structure Plan - Planning (2017-2020)	Land Use Planning	Waikato District Council
173224	Long Swamp Section	Investigation	Waikato Highway & Network Operations
173225	Long Swamp Section	Design	Waikato Highway & Network Operations
173226	Long Swamp Section	Construction	Waikato Highway & Network Operations
194966	Long Swamp Section	Property	Waikato Highway & Network Operations
148650	Long Swamp to Rangiriri SI	Design	Waikato Highway & Network Operations
148652	Long Swamp to Rangiriri SI	Construction	Waikato Highway & Network Operations
148613	Mercer to Long Swamp 4L	Construction	Waikato Highway & Network Operations
196125	Network Strategy Development	Study	Waikato District Council
LU01	Pokeno Structure Plan - Planning	Land Use Planning	Waikato District Council
LTP13	Pokeno Structure Plan - Rooding	Design and Construction	Waikato District Council
164362	Rangiriri Section	Investigation	Waikato Highway & Network Operations
173311	Rangiriri Section	Design	Waikato Highway & Network Operations
173312	Rangiriri Section	Construction	Waikato Highway & Network Operations
210896	Rangiriri Section	Construction	Waikato Highway & Network Operations
148612	Rangiriri to South of Ohinewai (Ohinewai Bypass)	Construction	Waikato Highway & Network Operations
LU08	Te Kauwhata Structure Plan - Planning	Investigation	Waikato District Council
LTP12	Te Kauwhata Structure Plan - Rooding	Design and Construction	Waikato District Council
221951	Tuakau - Pukekohe Rail Service	Construction	Waikato Regional Council
215171	Tuakau Railway Station upgrade	Construction	Waikato District Council
LU27	Tuakau Structure Plan - Planning (2012-2016)	Land Use Planning	Waikato District Council

LTP14	Tuakau Train Station Property	Design and Construction	Waikato District Council
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Central Sector

Table E.8: Group 01

Group-01		SH39 Corridor	
Objective	Confirmed long-term strategy for SH39 corridor. Improved safety, alignment, capacity and connection to the Te Rapa section of the Waikato Expressway.		
Reasons for Group	<p>This group of activities considers the opportunities presented by the change in traffic patterns and flow diversion resulting from construction of the Expressway.</p> <p>Traffic flows on SH39 north of Te Kowhai are expected to reduce in favour of a route along Limmer Road to the Expressway, and some reduction in flows south of Te Kowhai are expected as through traffic diverts to SH3/SH1.</p> <p>Some activities may be implemented separately but should be planned together. For example, planned safety improvements should consider any future capacity improvements that may be required to support the future form and function.</p>		
References	Waikato District Growth Strategy, Draft Waikato Regional State Highway Strategy		
Contribution to Optimisation	<p>This group will optimise safety and level of service on the road network by providing infrastructure to:</p> <ul style="list-style-type: none"> - support future residential development at Te Kowhai and enhance connectivity with Hamilton City; - provide efficient access to the Expressway; and - provide access to employment and industrial developments at Horotiu and Rotokauri. 		
Key Actions	<p>NZTA - strategic study of SH39 long-term future.</p> <p>Waikato DC - Te Kowhai growth planning.</p> <p>NZTA and Waikato DC - Develop and implement revocation (form and function) agreements.</p>		
Priority and Timing	< 3 years	Priority A	
Issues and Opportunities	Development of Integrated Transport Strategy for Waikato DC		
	Future functions of SH1/3/21/39, including Southern Links and Hamilton Western Corridor		
	Ngaruawahia: Future function of existing SH1/ SH39 alignments		
	Te Kowhai: network connectivity including future SH39 alignment		
Activity ID	Activity Name	Activity Phase	AO
201569	09-12 Rooding - Laxon Rd Realignment	Investigation	Waikato Highway & Network Operations
201512	09-12 Rooding - Limmer Rd Realignment	Investigation	Waikato Highway & Network Operations
201527	09-12 Rooding - Safety Improvements : SH39	Design	Waikato Highway & Network Operations
201545	09-12 Rooding - Safety Improvements: SH39	Construction	Waikato Highway & Network Operations
201581	09-12 Rooding: Whatawhata Weigh Station SH39	Investigation	Waikato Highway & Network Operations
214305	Laxon Rd Realignment (SH39)	Design	Waikato Highway & Network Operations

214306	Limmer Rd Realignment (SH39)	Design	Waikato Highway & Network Operations
214307	Limmer Rd Realignment (SH39)	Construction	Waikato Highway & Network Operations
NEW10	Revocation of SH39 between Te Kowhai and Ngaruawahia. Assign state highway status to Limmer Road route	New Activity	NZTA
LU12	Te Kowhai/Whatawhata Structure Plan – Planning (2018-2022)	Land Use Planning	Waikato District Council
145275	Te Kowhai/Limmer Intersection	Construction	Waikato District Council
164333	Te Rapa Section	Investigation	Waikato Highway & Network Operations
173284	Te Rapa Section	Design	Waikato Highway & Network Operations
173285	Te Rapa Section	Construction	Waikato Highway & Network Operations
194409	Te Rapa Section	Property	Waikato Highway & Network Operations
LTP06	Te Rapa Section of Waikato Expressway	Construction	Hamilton City Council
214522	Whatawhata Weigh Station SH39	Design	Waikato Highway & Network Operations
214523	Whatawhata Weigh Station SH39	Construction	Waikato Highway & Network Operations

Table E.9: Group 02

Group-02 Wairere Drive (Hamilton Ring Road)	
Objective	Improve capacity, relieve congestion, provide for alternative modes.
Reasons for Group	<p>Wairere Drive (Hamilton Ring Road) is a package identified in Access Hamilton and endorsed by the Transport Agency. Wairere Drive have a distribution function that complements the Waikato Expressway and supports development in the Hamilton periphery.</p> <p>This group identifies activities required to complete the Wairere Drive corridor and recognises the potential for improvements to alternative modes on adjacent local roads, for example, Peachgrove Road.</p> <p>The efficiency of the Wairere Drive corridor is likely to be influenced by the staging of Expressway construction and form of connections with the Expressway. Wairere Drive is also important with regard to reducing the tendency toward local trips on the Hamilton Section.</p> <p>Wairere Drive is currently (July 2013) completed from Crosby to Ruakura, with construction continuing south to Cobham Drive. The timing for construction of the Cambridge Road to Cobham Drive section is likely to have a significant effect on travel patterns within Hamilton.</p>
References	RLTS, RPTP, HCC Proposed District Plan, Access Hamilton, Ruakura Plan Change, Hamilton Southern Links Investigation
Contribution to Optimisation	<p>Wairere Drive completes the Hamilton City Ring Road, a package identified in the RLTS and Access Hamilton.</p> <p>Wairere Drive will provide access to key markets, employment areas and in and around the major urban area of Hamilton. It is likely to be a road critical to the success of the Waikato Expressway</p>

	providing access from the inter-regional route to destinations within Hamilton. Development of Wairere Drive will allow optimisation of PT, walking and cycling on adjacent routes.		
Key Actions	HCC - Complete construction of Wairere Drive Extension (Ruakura to Cobham). HCC - development of alternative modes on adjacent corridors (e.g. Peachgrove/ Hukanui) (unfunded in current LTP)		
Priority and Timing	3 years Priority B		
Issues and Opportunities	Future functions of SH1/3/21/39, including Southern Links and Hamilton Western Corridor		
	Hamilton District Plan Review		
	Optimise network connectivity between Hamilton City, Waikato Expressway and destinations to the east		
	Proposed development at Ruakura with an initial focus on freight and logistics and incorporating residential & commercial development		
	Staging and coordination between Wairere Drive and the Hamilton Section.		
Activity ID	Activity Name	Activity Phase	AO
191244	2012 Peachgrove, Hukanui, Tramway Corridor Interventions	Investigation	Hamilton City Council
191251	2012 Peachgrove, Hukanui, Tramway Corridor Interventions	Design	Hamilton City Council
191252	2012 Peachgrove, Hukanui, Tramway Corridor Interventions	Construction	Hamilton City Council
210236	Hamilton Ring Road – 4 laning and Extension	Construction	Hamilton City Council
224051	Hamilton Ring Road – 4 laning and Extension	Design	Hamilton City Council
224052	Hamilton Ring Road – 4 laning and Extension	Construction	Hamilton City Council
211399	Hamilton Ring Road – Peachgrove, Te Aroha, Ruakura Upgrade	Design	Hamilton City Council
211400	Hamilton Ring Road – Peachgrove, Te Aroha, Ruakura Upgrade	Construction	Hamilton City Council
211738	Hamilton Ring Road – Peachgrove, Te Aroha, Ruakura Upgrade	Property	Hamilton City Council
LTP07	Hamilton Ring Road Completion	Construction	Hamilton City Council
208174	Hamilton Ring Road (Crosby to Cambridge)	Property	Hamilton City Council
221993	Hamilton Ring Road (Crosby to Cambridge)	Construction	Hamilton City Council
221994	Hamilton Ring Road (Crosby to Cambridge)	Design	Hamilton City Council
173260	Hamilton Section	Investigation	Waikato Highway & Network Operations
185846	Hamilton Section	Design	Waikato Highway & Network Operations
194404	Hamilton Section	Property	Waikato Highway & Network Operations

195970	Hamilton Section	Construction	Waikato Highway & Network Operations
174659	Hamilton Southern Links	Investigation	Waikato Highway & Network Operations
174660	Hamilton Southern Links	Design	Waikato Highway & Network Operations
197204	Hamilton Southern Links	Property	Waikato Highway & Network Operations
174661	Hamilton Southern Links	Construction	Waikato Highway & Network Operations
214230	Hillcrest & Morrinsville Rd IS	Construction	Waikato Highway & Network Operations
NEW13	Peachgrove and Hukanui Intersection Upgrades (unfunded)	Unfunded	Hamilton City Council
LU05	Ruakura Growth Cell - Planning	Land Use Planning	Hamilton City Council
193746	Southern Links Designation - Hamilton Arterials	Investigation	Hamilton City Council
203823	Southern Links Designation - Hamilton Arterials	Design	Hamilton City Council
203822	Southern Links Designation - Hamilton Arterials	Property	Hamilton City Council
203824	Southern Links Designation - Hamilton Arterials	Construction	Hamilton City Council

Table E.10: Group 03

Group-03 Northern Corridor (Hamilton City)	
Objective	Provide a northern connection from the Waikato Expressway to Hamilton City's western corridor and an arterial network that supports growth within Rotokauri.
Reasons for Group	The Northern Corridor is a package identified by Access Hamilton. The package includes the Te Rapa Section (completed), Rotokauri Structure Plan arterial roading activities, Horotiu and associated TDM, active modes and PT planning. NZTA, HCC and Waikato DC have entered into a number of MOU for development in this area. The activities within this group are currently underway.
References	Future Proof, RLTS, Access Hamilton, Waikato Expressway Strategic Evaluation, Western Corridor Study, Rotokauri Structure Plan, Hamilton Ring Road, Hamilton Southern Links Investigation
Contribution to Optimisation	This group of activities will provide efficient access between the state highway network (SH1, SH3 and SH39), the Expressway and key employment and industrial developments at Horotiu and residential and industrial developments at Rotokauri. These activities seek to encourage alternative modes and provide efficient access to freight nodes.
Key Actions	NZTA and HCC - Develop and implement revocation (form and function) agreements. HCC and Developers - coordination of construction programme in Rotokauri. Waikato RC and HCC - PT strategy review
Priority and Timing	< 3 years Priority B

Issues and Opportunities	Development of Integrated Transport Strategy for Waikato DC		
	Future functions of SH1/3/21/39, including Southern Links and Hamilton Western Corridor		
	Northern River Crossing		
	Te Rapa Road (SH1): future function (Te Rapa Bypass to Avalon Drive)		
Activity ID	Activity Name	Activity Phase	AO
213840	2012 Access Hamilton Strategy and Strategic Network	Study	Hamilton City Council
173252	Ngaruawahia Section	Design	Waikato Highway & Network Operations
173253	Ngaruawahia Section	Construction	Waikato Highway & Network Operations
194407	Ngaruawahia Section	Property	Waikato Highway & Network Operations
LU10	Ngaruawahia Structure Plan – Planning (2013-2017)	Land Use Planning	Waikato District Council
LU03	Rotokauri Structure Plan - Planning	Land Use Planning	Hamilton City Council
LTP03	Rotokauri Structure Plan - Roading	Investigation	Hamilton City Council
211403	SH1 Te Rapa Road/Eagle Way Intersection	Construction	Hamilton City Council
215111	State Highway 1/Horotiu Bridge Rd Intersection Improvements	Construction	Waikato District Council
215190	State Highway 1/Horotiu Bridge Rd Intersection Improvements	Construction	Waikato District Council
215255	State Highway 1/Horotiu Bridge Rd Intersection Improvements	Construction	Waikato District Council
144999	Te Rapa Bypass (MPP)	Investigation	Hamilton City Council
171895	Te Rapa Freight Transport Feasibility Study	Study	Waikato Regional Council
215000	Te Rapa Road urbanisation	Design	Hamilton City Council
215001	Te Rapa Road urbanisation	Construction	Hamilton City Council
215021	Te Rapa Road urbanisation	Construction	Hamilton City Council
164333	Te Rapa Section	Investigation	Waikato Highway & Network Operations
173284	Te Rapa Section	Design	Waikato Highway & Network Operations
173285	Te Rapa Section	Construction	Waikato Highway & Network Operations
194409	Te Rapa Section	Property	Waikato Highway & Network Operations
LTP06	Te Rapa Section of Waikato Expressway	Construction	Waikato Highway & Network Operations

Table E.11: Group 04

Group-04		Hamilton Western Corridor and Southern Links	
Objective	To enable improved connectivity between the airport, state highway network and Peacocke structure.		
Reasons for Group	<p>Hamilton Southern Links is a package identified by Access Hamilton and endorsed by the Transport Agency. The RLTS identifies Southern Links as strategic corridors.</p> <p>The Hamilton Western Corridor is important for access to markets within Hamilton.</p> <p>The Hamilton Southern Links package will provide a future state highway connection between the Western Corridor and SH1 near Tamahere as well the arterial network within the Peacocke Structure Plan. The Southern Links Investigation is likely to inform decisions on the long-term form and function of the state highways along the Western Corridor. The Notice of Requirements were lodged on 9 August 2013. Construction is beyond the current 10 year plans of both HCC and NZTA.</p> <p>The Peacocke Structure Plan has been adopted by Council and is incorporated in Proposed District Plan.in this area. The activities within this group are currently underway.</p>		
References	RLTS, RTP, Access Hamilton, HUGS, Peacocke Structure Plan, Future Proof, Draft Waikato Regional State Highway Strategy, HCC Proposed District Plan, Hamilton Southern Links Investigation		
Contribution to Optimisation	The Western Corridor and Southern Links are assessed as being critical to the success of the Waikato Expressway. This group of activities will optimise the effectiveness of these urban arterials by providing access between key employment and residential nodes in Hamilton and the Expressway.		
Key Actions	HCC and NZTA - Southern Links Investigation (NOR lodged in August 2013).		
Priority and Timing	>10 years Priority C		
Issues and Opportunities	Coordination of infrastructure changes and land use pressures in Hamilton South, including Tamahere		
	Future functions of SH1/3/21/39, including Southern Links and Hamilton Western Corridor		
	Hamilton District Plan Review		
	Staging and coordination between Wairere Drive and the Hamilton Section.		
Activity ID	Activity Name	Activity Phase	AO
201520	09-12 Rooding -Safety Improvements: SH3 Hamilton to Airport	Design	Waikato Highway & Network Operations
213840	2012 Access Hamilton Strategy and Strategic Network	Study	Hamilton City Council
186400	Cobham Drive Pedestrian Facility	Investigation	Waikato Highway & Network Operations
213813	Cobham Drive Pedestrian Facility	Construction	Waikato Highway & Network Operations
214892	Gallagher IS	Design	Waikato Highway & Network Operations
214893	Gallagher IS	Construction	Waikato Highway & Network Operations
174659	Hamilton Southern Links	Investigation	Waikato Highway & Network Operations

174660	Hamilton Southern Links	Design	Waikato Highway & Network Operations
174661	Hamilton Southern Links	Construction	Waikato Highway & Network Operations
197204	Hamilton Southern Links	Property	Waikato Highway & Network Operations
214290	Kahikatea Dr/Greenwood St Int Impvt	Investigation	Waikato Highway & Network Operations
214291	Kahikatea Dr/Greenwood St Int Impvt	Design	Waikato Highway & Network Operations
214292	Kahikatea Dr/Greenwood St Int Impvt	Construction	Waikato Highway & Network Operations
193915	Kahikatea Dr/Greenwood St. Walking & Cycling Facilities	Investigation	Waikato Highway & Network Operations
213810	Kahikatea Dr/Greenwood St. Walking & Cycling Facilities	Construction	Waikato Highway & Network Operations
174620	Massey Street Cycle Lane	Design	Waikato Highway & Network Operations
174621	Massey Street Cycle Lane	Construction	Waikato Highway & Network Operations
LU17	Meridian 37	Implementation	Waipa District Council
LU02	Peacocke Structure Plan - Planning	Land Use Planning	Hamilton City Council
LTP05	Peacocke Structure Plan - Roading	Investigation	Hamilton City Council
NEW02	Potential connection to the Hamilton Airport for passenger and freight	New Activity	Kiwirail, Waikato DC
214891	Safety Improvements: SH3 Hamilton Airport Rd	Construction	Waikato Highway & Network Operations
221948	SH3 Houchens Road Intersection Upgrade	Investigation	Waikato Highway & Network Operations
221949	SH3 Houchens Road Intersection Upgrade	Design	Waikato Highway & Network Operations
221950	SH3 Houchens Road Intersection Upgrade	Construction	Waikato Highway & Network Operations
193746	Southern Links Designation - Hamilton Arterials	Investigation	Hamilton City Council
203822	Southern Links Designation - Hamilton Arterials	Property	Hamilton City Council
203823	Southern Links Designation - Hamilton Arterials	Design	Hamilton City Council
203824	Southern Links Designation - Hamilton Arterials	Construction	Hamilton City Council
LU14	Tamahere Structure Plan - Planning	Implementation	Waikato District Council
LTP02	Tamahere Structure Plan - Roading	Investigation	Waikato District Council
LU16	Titanium Park/Airport Business Park	Implementation	Waipa District Council

Table E.12: Group 05

Group-05		Tamahere Area	
Objective	Improved local access and amenity of the Tamahere community. Efficiency of the Expressway, particularly connections to Hamilton city		
Reasons for Group	<p>The land use pressures analysis undertaken by the Future Proof partners confirmed that the Hamilton Southern Interchange is likely to be under pressures by 2041 as a result of projected population growth within Tamahere and Cambridge.</p> <p>These land use pressures and connectivity changes arising from development and Expressway construction have the potential to reduce the efficiency and safety of the Expressway and the local road network.</p> <p>The Future Proof Transport Reference Group has identified that commuting trips between Tamahere, Cambridge and Hamilton have the potential to reduce the effectiveness of the Expressway and have resolved to reduce the number of local trips on this section of the Expressway. Waikato DC's Plan Change 2 will limit some of this pressure.</p>		
References	Future Proof, RLTS, Waikato District Growth Strategy, Tamahere Structure Plan, Hamilton Southern Links Investigation, WILTS		
Contribution to Optimisation	The activities within this group will optimise travel choice, local access and movement between Tamahere, Hamilton and the Expressway, particularly at the Hamilton South Interchange.		
Key Actions	<p>NZTA - Progress any necessary alterations to the Hamilton Section designation.</p> <p>HCC and NZTA - Southern Links Investigation (NOR lodged in August 2013).</p> <p>Waikato DC - Tamahere Structure Plan.</p> <p>NZTA and Waikato DC - South East Hamilton One Network Review.</p>		
Priority and Timing	< 3 years	Priority A	
Issues and Opportunities	Coordination of infrastructure changes and land use pressures in Hamilton South, including Tamahere		
	Development of Integrated Transport Strategy for Waikato DC		
	Land use changes in vicinity of Hamilton International Airport		
Activity ID	Activity Name	Activity Phase	AO
173260	Hamilton Section	Investigation	Waikato Highway & Network Operations
185846	Hamilton Section	Design	Waikato Highway & Network Operations
194404	Hamilton Section	Property	Waikato Highway & Network Operations
195970	Hamilton Section	Construction	Waikato Highway & Network Operations
174659	Hamilton Southern Links	Investigation	Waikato Highway & Network Operations
174660	Hamilton Southern Links	Design	Waikato Highway & Network Operations
174661	Hamilton Southern Links	Construction	Waikato Highway & Network Operations

197204	Hamilton Southern Links	Property	Waikato Highway & Network Operations
LU26	Matangi Structure Plan - Planning (2018-2022)	Land Use Planning	Waikato District Council
197602	Regional Public Transport Plan	Study	Waikato Regional Council
217916	Tamahere East-West Connection	Property	Waikato District Council
217917	Tamahere East-West Connection	Design	Waikato District Council
217918	Tamahere East-West Connection	Construction	Waikato District Council
LU14	Tamahere Structure Plan - Planning	Implementation	Waikato District Council
LTP02	Tamahere Structure Plan - Roading	Investigation	Waikato District Council
164309	Tamahere - Cambridge Section (Waikato Expressway)	Design	Waikato Highway & Network Operations
173265	Tamahere - Cambridge Section (Waikato Expressway)	Construction	Waikato Highway & Network Operations
194403	Tamahere - Cambridge Section (Waikato Expressway)	Property	Waikato Highway & Network Operations

Table E.13: Group 08

Group-08		Hamilton Cross City Connector	
Objective	Improved connectivity between Wairere Drive (Hamilton Ring Road), SH1 (Western Corridor) and the northern end of the CBD.		
Reasons for Group	<p>The Cross-City Connector is a package identified by Access Hamilton, but currently unfunded in 2012-2022 Long-Term Plan.</p> <p>There is currently no efficient connection across the city in the east-west direction. There are issues at key intersections that should be considered and resolved (congestion at peak periods) as part of the planning and construction of his major arterial route. The route is already designated as a major arterial (sensitive transport network) and this needs to be considered as changes are made to the network.</p> <p>The timing and development of the Cross City Connector will be influenced by land use planning decisions (Peacocke vs. Rotokauri vs. Ruakura).</p>		
References	Access Hamilton, HUGS, RLTS, RPTP, HCC Proposed District Plan		
Contribution to Optimisation	The Cross City Connector will optimise the Expressway and Hamilton City Ring Road by providing an east-west corridor within Hamilton. The corridor is expected to provide for alternative modes. This key corridor connects residential areas in the east and employment areas in the west with the CBD. These activities are expected to enhance access to the Hamilton CBD, encouraging economic development and growth.		
Key Actions	<p>HCC - Confirm nature and capacity of connections at city centre and west end.</p> <p>HCC - Reconsider for funding during next annual plan/long-term plan.</p>		
Priority and Timing	>10 years	Priority B	
Issues and	Hamilton District Plan Review		
	Optimise network connectivity between Hamilton City, Waikato Expressway and destinations to		

Opportunities	the east		
	Proposed development at Ruakura with an initial focus on freight and logistics and incorporating residential & commercial development		
	Staging and coordination between Wairere Drive and the Hamilton Section.		
Activity ID	Activity Name	Activity Phase	AO
213840	2012 Access Hamilton Strategy and Strategic Network	Study	Hamilton City Council
220950	2012 Boundary Road Pedestrian Crossing	Construction	Hamilton City Council
214869	2012 Cross City - 5X Roads Improvements	Design	Hamilton City Council
214840	2012 Cross City - 5X Roads Improvements	Construction	Hamilton City Council
214866	2012 Cross City Boundary Road Bridge 4 laning	Investigation	Hamilton City Council
214867	2012 Cross City Boundary Road Bridge 4 laning	Design	Hamilton City Council
214868	2012 Cross City Boundary Road Bridge 4 laning	Construction	Hamilton City Council
214862	2012 Cross City Connector - Heaphy/Boundary Optimisation	Investigation	Hamilton City Council
214863	2012 Cross City Connector - Heaphy/Boundary Optimisation	Design	Hamilton City Council
214864	2012 Cross City Connector - Heaphy/Boundary Optimisation	Construction	Hamilton City Council
214865	2012 Cross City Connector - Heaphy/Boundary Optimisation	Property	Hamilton City Council
214840	2012 Cross City Connector - Long term solution	Investigation	Hamilton City Council
NEW12	Cross-city Connector (unfunded)	Unfunded	Hamilton City Council
173260	Hamilton Section	Investigation	Waikato Highway & Network Operations
185846	Hamilton Section	Design	Waikato Highway & Network Operations
194404	Hamilton Section	Property	Waikato Highway & Network Operations
195970	Hamilton Section	Construction	Waikato Highway & Network Operations
177569	Mill Street Intersection Upgrades	Construction	Hamilton City Council
LU05	Ruakura Growth Cell - Planning	Land Use Planning	Hamilton City Council
NEW15	Upgrade of Anglesea St and Tristram St Intersections	New Activity	Hamilton City Council

Table E.14: Group 09

Group-09		Future Form and Function of existing state highways (HCC - SH1, SH3 and SH26)	
Objective		Ensure that the future form and function of existing State Highway sections in Hamilton City is agreed between HCC and NZTA.	

Reasons for Group	<p>The revocation of SH1 and possibly SH3 and SH26 within Hamilton is linked to both the Waikato Expressway and Southern Links projects. Planning and managing this process is important to ensure that Council is prepared for the increased maintenance responsibilities and is well placed to optimise opportunities for improved amenity and access in both urban and rural areas.</p> <p>The future function of the existing state highway alignments may be inconsistent with the current form. Agreements on the future form and function between HCC and NZTA are necessary.</p> <p>The HCC District Plan review provides an opportunity for Hamilton to identify the long-term form and function of these major arterials.</p>		
References	Access Hamilton, Draft Waikato Regional State Highway Strategy, HCC Proposed District Plan		
Contribution to Optimisation	<p>The group will identify the future form and function of these routes and manage the process of revocation for SH1, SH3 and SH26 within Hamilton including timing, funding and level of service. Appropriate management of the revoked state highways is expected to optimise the efficiency and effectiveness of both the Hamilton City transport network and the Expressway.</p>		
Key Actions	<p>NZTA and HCC - consider role of existing SH1 and SH26 between the Expressway and Hamilton City.</p> <p>Develop and implement revocation (form and function) agreement.</p> <p>NZTA and HCC - determine long-term form and function of existing SH1 and SH3 as part of Southern Links investigation.</p> <p>NZTA - Support Expressway objectives by encouraging early uptake of new alignments/ Expressway Sections as they are completed</p>		
Priority and Timing	3-6 years	Priority C	
Issues and Opportunities	Future functions of SH1/3/21/39, including Southern Links and Hamilton Western Corridor		
	Te Rapa Road (SH1): future function (Te Rapa Bypass to Avalon Drive)		
Activity ID	Activity Name	Activity Phase	AO
173260	Hamilton Section	Investigation	Waikato Highway & Network Operations
185846	Hamilton Section	Design	Waikato Highway & Network Operations
194404	Hamilton Section	Property	Waikato Highway & Network Operations
195970	Hamilton Section	Construction	Waikato Highway & Network Operations
214230	Hillcrest & Morrinsville Rd IS	Construction	Waikato Highway & Network Operations
LU04	Rototuna Structure Plan – Planning	Land Use Planning	Hamilton City Council
LTP04	Rototuna Structure Plan – Planning	Investigation	Hamilton City Council
164333	Te Rapa Section	Investigation	Waikato Highway & Network Operations
173284	Te Rapa Section	Design	Waikato Highway & Network Operations
173285	Te Rapa Section	Construction	Waikato Highway & Network Operations

194409	Te Rapa Section	Property	Waikato Highway & Network Operations
LTP06	Te Rapa Section of Waikato Expressway	Construction	Hamilton City Council

Table E.15: Group 16

Group-16		Future Form and Function of existing state highways (Waipa DC - SH1 and SH1B)	
Objective	Ensure that the future form and function of existing State Highway sections in the Waipa District is agreed between Waipa DC and NZTA.		
Reasons for Group	<p>Sections of SH1 and SH1B are expected to be revoked and returned to Waipa DC. There are also potential changes to the status of SH3 and SH39. Planning and managing this process is important to ensure that Council is prepared for the increased maintenance responsibilities and is well placed to optimise opportunities for improved amenity and access in both urban and rural areas.</p> <p>The future function of the existing state highway alignments may be inconsistent with the current form.</p> <p>Agreements on the future form and function between Waipa DC and NZTA are necessary.</p> <p>The Waipa District Plan Review provides an opportunity for Waipa DC to assess the long-term form and function of these corridors.</p>		
References	WITS, Waipa 2050, Draft Waikato Regional State Highway Strategy		
Contribution to Optimisation	This group will identify the future form and function of these routes and manage the process of revocation including timing, funding and level of service. Appropriate management of the revoked state highways is expected to optimise the efficiency and effectiveness of both the Waipa District road network and the Expressway.		
Key Actions	NZTA and Waipa DC - Develop and implement revocation (form and function) agreements		
Priority and Timing	3-6 years	Priority C	
Issues and Opportunities	Alignment of strategies and plans within Waipa District		
	Future function of SH1/ SH1B (Waipa DC)		
Activity ID	Activity Name	Activity Phase	AO
LU14	Tamahere Structure Plan – Planning	Implementation	Waikato Highway & Network Operations
LU20	Town Concept Plans – Implementation	Land Use Planning	Waipa District Council
LU25	Hautapu Branch Rail Line	Land Use Planning	Waipa District Council
LTP02	Tamahere Structure Plan – Roading	Investigation	Waikato Highway & Network Operations
215022	Cambridge Bypass Old State Highway Intersection Construction Improvements (2014) – SH1/1B	Construction	Waipa District Council
215023	Cambridge Bypass Old State Highway Intersection Construction Improvements (2015) - Shakespeare St / Tirau Road	Construction	Waipa District Council
215024	Cambridge Bypass Old State Highway Intersection Construction Improvements (2016) – Gateways	Construction	Waipa District Council

164309	Tamahere –Cambridge Section (Waikato Expressway)	Design	Waikato Highway & Network Operations
173265	Tamahere –Cambridge Section (Waikato Expressway)	Construction	Waikato Highway & Network Operations
194403	Tamahere –Cambridge Section (Waikato Expressway)	Property	Waikato Highway & Network Operations

Table E.16: Group 18

Group-18		Hamilton City Centre – Growth and Access	
Objective	A vibrant City Centre that is well connected to the Waikato Expressway and contributes to the well-being of Hamilton and the sub-region.		
Reasons for Group	<p>Future Proof identifies the city centre as the centre of the sub-region. To optimise the opportunities provided by the Waikato Expressway the Hamilton CBD needs to be well connected with the Expressway.</p> <p>Through the Hamilton District Plan review the city expects the majority of growth within the city to occur</p>		
References	Access Hamilton, RTPP, RLTS, HUGS, Future Proof, HCC Proposed District Plan		
Contribution to Optimisation	<p>Optimising connectivity between the Waikato Expressway and the Hamilton CBD will promote economic development by reducing travel time and increasing opportunities for growth and productivity.</p> <p>Growth of Hamilton is important for the sub-region.</p>		
Key Actions	<p>HCC - District Plan review and development of activities to improve access</p> <p>Waikato RC - plan and provide efficient passenger transport services to the Hamilton CBD from within Hamilton, Cambridge and Tamahere</p> <p>NZTA - manage connectivity to the Expressway</p>		
Priority and Timing	< 3 years	Priority B	
Issues and Opportunities	Future functions of SH1/3/21/39, including Southern Links and Hamilton Western Corridor		
	Hamilton District Plan Review		
	Optimise network connectivity between Hamilton City, Waikato Expressway and destinations to the east		
	Staging and coordination between Wairere Drive and the Hamilton Section.		
Activity ID	Activity Name	Activity Phase	AO
213840	2012 Access Hamilton Strategy and Strategic Network	Study	Hamilton City Council
214987	2012 Hamilton Accessibility Mapping	Study	Hamilton City Council
220948	2012 Hamilton Integrated Transport Improvements	Implementation	Hamilton City Council
213905	2012 Strategic Bus Network – Prioritisation	Design	Hamilton City Council
215072	2012 Strategic Bus Network – Prioritisation	Construction	Hamilton City Council
213902	2012 Strategic Network Optimisation	Design	Hamilton City Council
NEW12	Cross-City Connector (unfunded)	Unfunded	Hamilton City Council

NEW15	Upgrade of Anglesea St and Tristram St Intersections	New Activity	Hamilton City Council
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Southern Sector

Table E.17: Group 06

Group-06		Cambridge Area	
Objective	Improved local access and amenity within Cambridge. Efficient access along and to the Expressway.		
Reasons for Group	<p>Group of inter-related projects located in and around Cambridge. Construction of the Cambridge Section of the Expressway provides a range of opportunities for land use and infrastructure development in and around Cambridge.</p> <p>Future Proof partners have previously identified that commuting trips between Tamahere, Cambridge and Hamilton have the potential to reduce the effectiveness of the Expressway and have resolved to reduce the number of local trips on this section of the Expressway.</p> <p>Land use changes to support employment self-sufficiency in Cambridge have been identified through zoning changes in Waipa's Proposed District Plan (e.g. Hautapu and Carter's Flat).</p>		
References	Future Proof, WITS, Waipa 2050		
Contribution to Optimisation	<p>This group of activities will optimise the opportunities for local access, movement and amenity within Cambridge presented by the reduction in traffic on SH1 and SH1B.</p> <p>These activities seek to reduce the number of local commuting trips on the Expressway.</p>		
Key Actions	<p>NZTA and Waipa DC - Develop and implement revocation (form and function) agreements.</p> <p>Waipa DC - progress implementation of the Cambridge Town Concept Plan.</p> <p>Waipa DC - continue to progress proposed District Plan through statutory processes.</p>		
Priority and Timing	3-6 years	Priority B	
Issues and Opportunities	Alignment of strategies and plans within Waipa District		
	Cambridge Section - Potential for motorist services near Victoria Road Interchange.		
	Future function of SH1/ SH1B (Waipa DC)		
	Future options for rail at Hautapu		
	Planning for future river crossings within Cambridge		
	Te Awa - walking and cycling		
Activity ID	Activity Name	Activity Phase	AO
215026	Cambridge Bypass – Hautapu Interchange	Construction	Waipa District Council
215022	Cambridge Bypass Old State Highway Intersection Construction Improvements (2014) – SH1/1B	Construction	Waipa District Council
215023	Cambridge Bypass Old State Highway Intersection Construction Improvements (2015) - Shakespeare St / Tirau Road	Construction	Waipa District Council
215024	Cambridge Bypass Old State Highway Intersection Construction Improvements (2016) – Gateways	Construction	Waipa District Council
LTP09	Cambridge Bypass Roading Improvements	Implementation	Waipa District Council
LTP10	Cambridge Gateways Project	Implementation	Waipa District Council
215057	Cambridge Post Bypass Traffic Options Plan	Study	Waipa District Council

220406	Cambridge Third Bridge	Investigation	Waipa District Council
220407	Cambridge Third Bridge	Property	Waipa District Council
171968	Cambridge Traffic Study	Study	Waipa District Council
LU25	Hautapu Branch Rail Line	Land Use Planning	Waipa District Council
LU24	Hautapu Industrial Growth	Land Use Planning	Waipa District Council
215053	Integrated Traffic Studies (WITS)	Study	Waipa District Council
174575	Karapiro Stream Bridge Widening	Investigation	Waikato Highway & Network Operations
197602	Regional Public Transport Plan	Study	Waikato Regional Council
LTP11	Shakespeare Street – Tirau Road Intersection Upgrade	Implementation	Waipa District Council
164309	Tamahere - Cambridge Section (Waikato Expressway)	Design	Waikato Highway & Network Operations
173265	Tamahere - Cambridge Section (Waikato Expressway)	Construction	Waikato Highway & Network Operations
194403	Tamahere - Cambridge Section (Waikato Expressway)	Property	Waikato Highway & Network Operations
NEW07	Third crossing of the Waikato River within Cambridge (Not currently funded in the LTCCP)	New Activity	Waipa District Council
LU20	Town Concept Plans – Implementation	Land Use Planning	Waipa District Council
LTP08	Victoria Road, Cambridge – Interchange Contribution	Implementation	Waipa District Council

Table E.18: Group 13

Group-13 SH1 (south of Cambridge) and SH29	
Objective	Coordination of improvement projects along SH1 and SH29 south of Cambridge that enhance the performance of the Waikato Expressway.
Reasons for Group	To identify appropriate treatments for SH1 and SH29 to maximise the attractiveness of the Waikato Expressway for inter-regional traffic. The GPS 2012-22 Engagement Document identifies 'Hamilton to Tauranga' and 'Cambridge to Taupo' as possible future RONS (subject to review during development of the next GPS)
References	RLTS, Draft Waikato Regional State Highway Strategy, Waikato Inter-Regional Transportation Study
Contribution to Optimisation	These activities will optimise the efficiency and safety of the existing state highway network south of the Expressway to ensure that it operates effectively as a key inter-regional route. These activities are likely to focus on optimising freight movements along the corridor.
Key Actions	NZTA - Cambridge to Kaimai Strategic Study NZTA - SH1/2/29 Inter-regional Strategic Study
Priority and Timing	>10 years Priority C

Issues and Opportunities	Alignment of strategies and plans within Waipa District		
	Future planning for next RONS		
Activity ID	Activity Name	Activity Phase	AO
147956	East Waikato Integrated Transport Strategy	Investigation	Waikato Regional Council
214295	Kaimais to Piarere SI SH29 NSC	Construction	Waikato Highway & Network Operations
214296	Kaimais to Piarere SI SH29 NSC	Design	Waikato Highway & Network Operations
174575	Karapiro Stream Widening	Investigation	Waikato Highway & Network Operations
214370	Piarere Junction Safety Improvements	Design	Waikato Highway & Network Operations
214371	Piarere Junction Safety Improvements	Construction	Waikato Highway & Network Operations
214590	SH1 Cambridge to Piarere Safe System Improvements	Investigation	Waikato Highway & Network Operations
214591	SH1 Cambridge to Piarere Safe System Improvements	Design	Waikato Highway & Network Operations
214592	SH1 Cambridge to Piarere Safe System Improvements	Construction	Waikato Highway & Network Operations
214451	SH29/24 Intersection Improvements	Investigation	Waikato Highway & Network Operations
LTP11	Shakespeare Street – Tirau Road Intersection Upgrade	Implementation	Waipa District Council
164309	Tamahere – Cambridge Section (Waikato Expressway)	Design	Waikato Highway & Network Operations
173265	Tamahere –Cambridge Section (Waikato Expressway)	Construction	Waikato Highway & Network Operations
194403	Tamahere – Cambridge Section (Waikato Expressway)	Property	Waikato Highway & Network Operations
LU20	Town Concept Plans –Implementation	Land Use Planning	Waipa District Council

Table E.19: Group 15

Group-15	SH21 and Airport Area
Objective	An efficient corridor between the Expressway and SH3 that provides access to developments along SH21 including the Hamilton International Airport.
Reasons for Group	<p>Future Proof and Waipa 2050 identify the airport area as a growth area and strategic industrial node. The Expressway presents opportunities for improved access to the airport and adjacent land use developments.</p> <p>Development patterns should recognise the need for airport-related activities to maintain the viability of the Airport as a strategic asset for the region. The Proposed RPS contains provisions which aim to control the level of non-airport relative activity.</p>

References	Future Proof, WITS, Waipa 2050, Draft Waikato Regional State Highway Strategy		
Contribution to Optimisation	<p>Industrial and commercial developments (e.g. Titanium Park and Meridian 37) adjacent to the airport have the potential to adversely impact on the effectiveness of the Expressway.</p> <p>This group of activities will contribute to optimisation of the Expressway by managing land use development and providing appropriate transport infrastructure.</p> <p>There are opportunities for passenger and freight rail connections from Hamilton to the airport.</p>		
Key Actions	<p>NZTA - consider long-term role and function of SH21 as part of Southern Links Investigations.</p> <p>Waipa DC - manage land use activities and growth near the airport</p> <p>Future Proof - implement recommendations of Airport and Adjacent Lands Study (July 2013)</p>		
Priority and Timing	7-10 years	Priority C	
Issues and Opportunities	Alignment of strategies and plans within Waipa District		
	Coordination of infrastructure changes and land use pressures in Hamilton South, including Tamahere		
	Future functions of SH1/3/21/39, including Southern Links and Hamilton Western Corridor		
	Land use changes in vicinity of Hamilton International Airport		
Activity ID	Activity Name	Activity Phase	AO
LU16	Titanium Park/Airport Business Park	Implementation	Waipa District Council
LU17	Meridian 37	Implementation	Waipa District Council
174659	Hamilton Southern Links	Investigation	Waikato Highway & Network Operations
174660	Hamilton Southern Links	Design	Waikato Highway & Network Operations
174661	Hamilton Southern Links	Construction	Waikato Highway & Network Operations
197204	Hamilton Southern Links	Property	Waikato Highway & Network Operations
NEW02	Potential connection to the Hamilton Airport for passenger and freight	New Activity	Kiwirail, Waikato RC

APPENDIX F

Funding Plan

Appendix F – Group and Package Summaries

Summary

The funding plan for the Network Plan has been developed using the Optimisation Methodology outlined in Appendix D and utilises information from Transport Investment Online (TIO) as at April 2013 and the Long-term Plans 2012-2022 developed by Hamilton City, Waikato and Waipa District Councils.

Spending on transport within the area influenced by the Waikato Expressway is forecast to be approximately \$300m/year for the next nine years. Approximately 71% of this funding has been assessed as making a high contribution to the Waikato Expressway, either directly through RONS projects or indirectly through associated local road improvements. Over the next 9 years there will be an increasing focus on construction of the Waikato Expressway reducing the funding available for other state highway improvement activities.

The funding plan identifies gaps in the forecast funding for maintenance and operations costs. These costs will be identified through the development of future RLTPs.

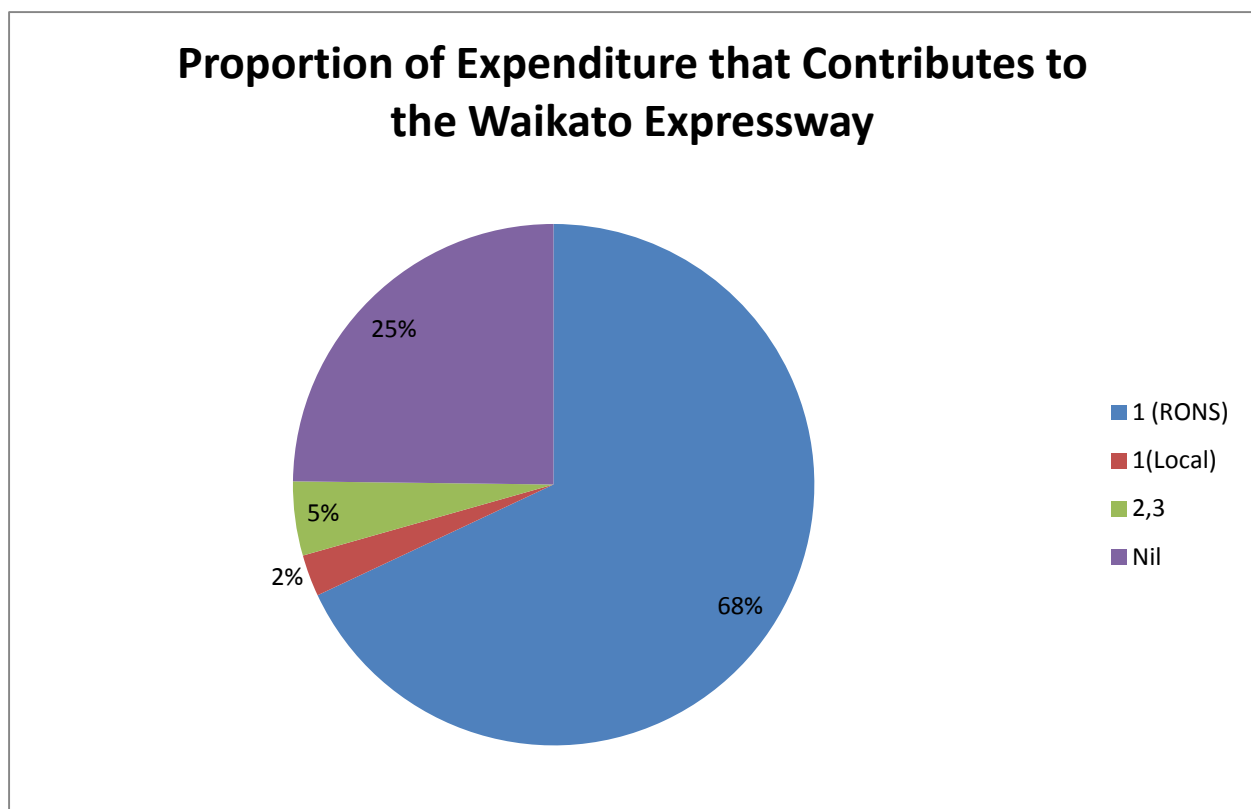


Figure F1: Proportion of expenditure that contributes to the Waikato Expressway, 2012-21

Expressway Optimisation Categories

The optimisation categories have been modified since Network Plan 1.0 to separately identify RONS projects from other projects that make an important contribution to the Waikato Expressway. The modified optimisation categories are:

- 1 (RONS) RONS projects;

- 1 (Local) Local road projects that make a high contribution to Expressway optimisation, this includes other state highway projects;
- 2 Projects that make a medium contribution to Expressway optimisation;
- 3 Projects that make a low contribution to Expressway optimisation; and
- Other Projects with nil contribution to Expressway optimisation.

These categories have been used to illustrate the change in funding patterns expected over the next 10 year period.

Funding Plan

The purpose of this funding plan is to identify expenditure related to and its contribution to the performance of the Waikato Expressway.

This funding plan utilises information from TIO as at April 2013 and the 2012-2022 Long-Term Plans developed by Hamilton City, Waikato and Waipa District Councils. The Network Plan does not quantify the cost for new activities.

Total funding is forecast to be relatively constant at approximately \$1B/year. However, the distribution of the expenditure is forecast to change significantly due to the construction of the Waikato Expressway. In the previous 2009/12 funding period, 51% of all expenditure had a high contribution to the Expressway. This remains steady at 52% in 2012/15 period and increases to 90% in the 2015/18 period.

Contribution to Waikato Expressway

The following table and figure present the forecast spending and the expected contribution to the Waikato Expressway. While the majority of the forecast spending is on Expressway projects, local roads projects also make an important contribution. Approximately 72% of funding over the next 9 years has been assessed as making a high contribution to the Waikato Expressway.

Table F1: Forecast Funding by Contribution to Waikato Expressway

Contribution to Optimisation	2012/15	2015/18	2018/21	Total
1 (RONS)	\$559,832,450	\$839,121,000	\$456,621,000	\$1,855,574,450
1 (Local)	\$55,175,356	\$300,000	\$14,858,400	\$70,333,756
2, 3	\$45,190,599	\$50,694,757	\$29,754,871	\$125,640,228
Nil	\$578,044,140	\$48,260,700	\$49,825,000	\$676,130,340
Total	\$1,273,384,545	\$943,314,457	\$551,059,771	\$2,767,758,744

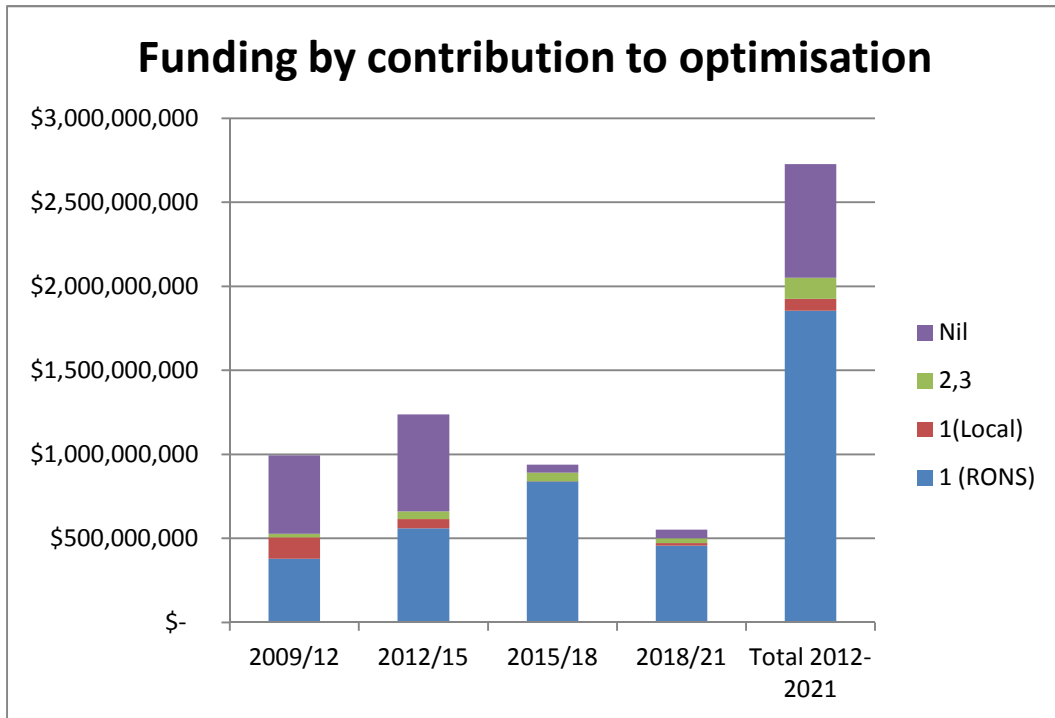


Figure F2: Forecast Funding by Contribution to Waikato Expressway

The drop in funding for ‘other’ activities beyond the 2012/15 period indicates that much of the operation and maintenance information was not available when this funding plan was developed.

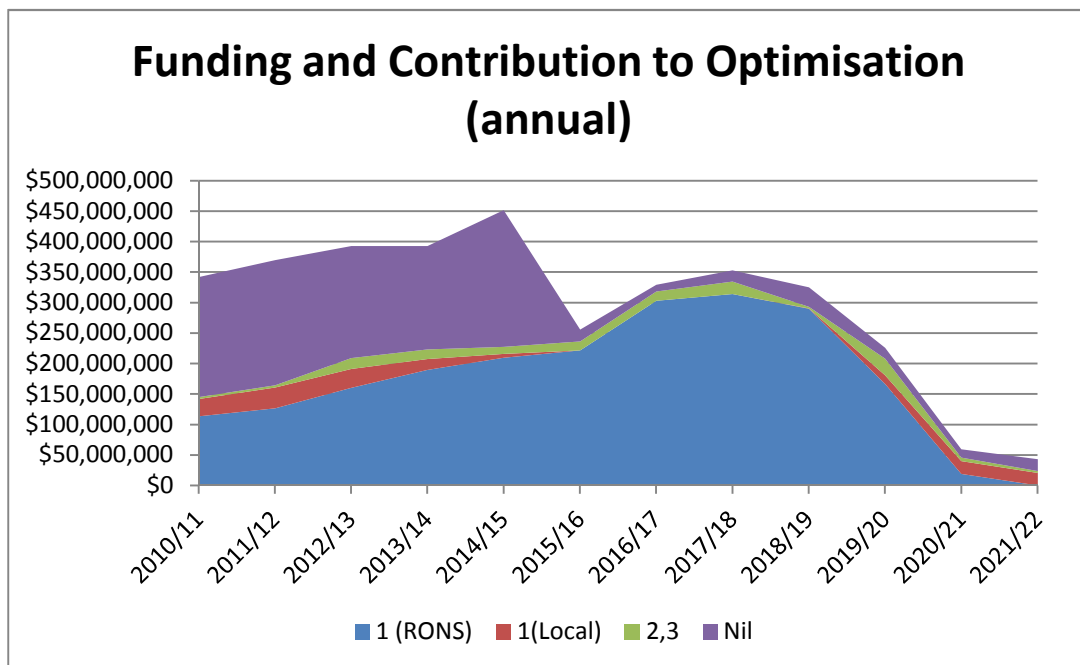


Figure F3: Forecast Funding by Contribution to Waikato Expressway

Funding by Activity Phase

The following table and figure present the forecast spending by activity phase. During the 10 year period there is a shift towards construction activities within an increase from 40% to 93% of the forecast spend.

It should be noted that there are no forecast costs within TIO for maintenance activities beyond the current 2012/15 funding period. It is likely that maintenance activities will be ongoing and included in preparation of the 2015/18 funding plans.

Table F2 Forecast Funding by Activity Phase

	2012/15	2015/18	2018/21	Total 2012-2021
Administration				
Annual Allocation				
Construction	\$672,290,762	\$919,137,800	\$521,510,800	\$2,112,939,362
Design	\$13,118,300	\$3,358,000	\$7,736,000	\$24,212,300
Design and Construction	\$5,031,420	\$5,196,000	\$4,563,000	\$14,790,420
Implementation	\$5,315,700	\$4,225,000	\$850,000	\$10,390,700
Investigation	\$34,536,179	\$7,336,657	\$3,644,971	\$45,517,808
Land Use Planning	\$1,364,000	\$1,081,000	\$1,735,000	\$4,180,000
Maintenance	\$375,596,017			\$375,596,017
New Activity				
Operations	\$51,633,000			\$51,633,000
Property	\$106,550,038	\$1,572,000	\$10,549,000	\$118,671,038
Study	\$7,949,129	\$1,408,000	\$471,000	\$9,828,129
Grand Total	\$1,273,384,545	\$943,314,457	\$551,059,771	\$2,767,758,774

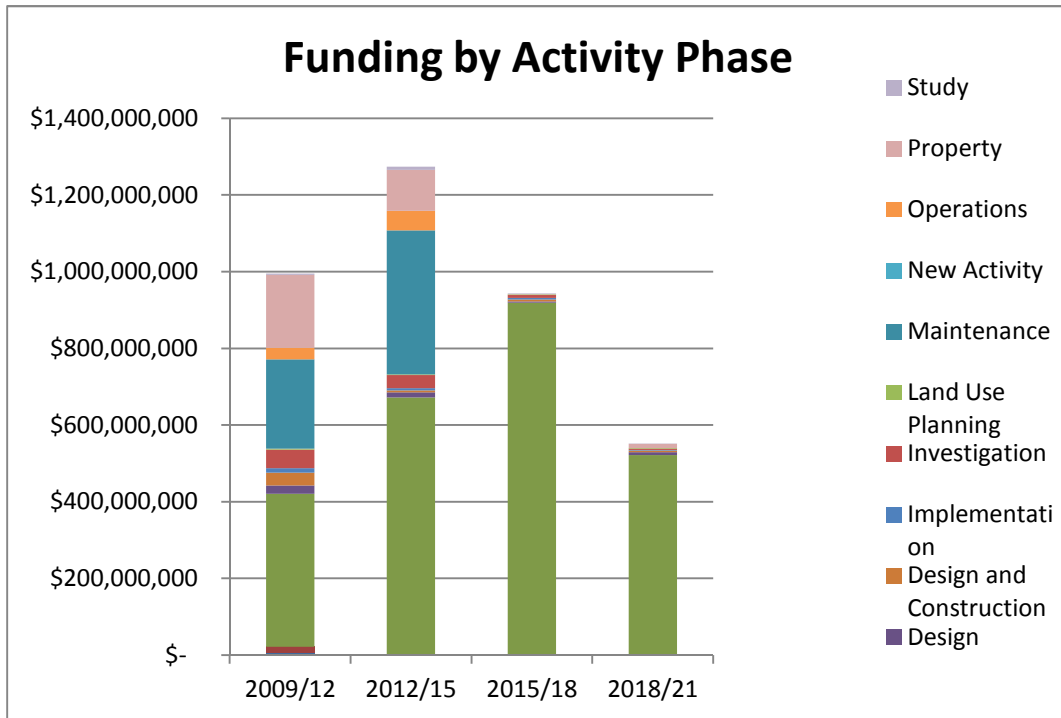


Figure F4: Forecast Funding by Activity Phase

Future Updates

It is recommended that the funding plan be updated following adoption of the next RLTP by the Waikato Regional Council in June 2015 (and completion of LTP processes by councils). This will provide increased certainty for all stakeholders and should reflect development of activities addressing the critical issues identified in Network Plan 3.0.

APPENDIX G

Critical Issue Tracking

Appendix G – Critical Issue Tracking
Network Plan – Critical Issue Tracking

Critical Issues Network Plan Version 1.0:		Updated Critical Issues - Version 2.0 (February 2012):		Commentary on Progress		Updated Critical Issues - Version 3.0:		Why is this a Critical Issue?	
1	Determining the location and form of interchanges on the Hamilton section (including greater certainty regarding land use development at Ruakura);	1	Land use pressures (residential and employment growth) for the Waikato District in the north Waikato, Ngaruawahia and Huntly and the potential impacts of pressures on the future functioning of the Expressway.	Critical issue resulting from boundary changes in the north Waikato. Progressed through Waikato DC planning. Restated in Version 3.0 as Critical Issue 1	1	Integration with Auckland Spatial Plan and Waikato District Boundary changes and planning for land use pressures in north Waikato	Uncertainty arising from: growth within Auckland southern RUB area; growth in Pokeno/ Tuakau area and Northern Waikato District; part of area now lies within the Future Proof strategy area but issues have not been considered as part of an integrated approach.		
2	Potential traffic flow impacts on Hamilton City's arterial network resulting from staging and timing of each expressway section, for example managing congestion in Hillcrest until completion of the Hamilton Section;	2	Determining the location and form of interchanges on the Hamilton section (including greater certainty regarding land use development at Ruakura) and connectivity to local network to the east of Hamilton;	Hamilton Section macro-scope agreed. Alterations to designation to be progressed by NZTA. Likely to remain a critical issue until land use and development at Ruakura is more certain. Carried over into Version 3.0 as Critical Issue 2	2	Determining the location and form of interchanges on the Hamilton section (including greater certainty regarding land use development at Ruakura) and connectivity to local network to the east of Hamilton;	Retained as a critical issue until land use and development at Ruakura and local network connectivity are more certain. Will include tracking outcomes of statutory processes including Hamilton District Plan Review and Board of Inquiry for Ruakura development.		
3	The implications for the Hamilton South interchange (function and capacity) arising from potential development within the catchment for that interchange;	3	Determining the future function and form of SH39, including northern connectivity.	SH39A has been declared. SH39 (Ngaruawahia Road) will be revoked once the Ngaruawahia Section is complete. Issue remains within Network Plan but is no longer a critical issue	3	Addressing the impacts on the Hamilton South interchange (function and capacity) arising from land use pressures within the catchment for that interchange, through an agreed package of interventions.	There is an ongoing requirement to agree and implement optimal whole of network solution and alignment of land use that supports expressway function. This includes tracking longer-term trends and implementation of package of interventions across agencies.		
4	Progress development of a cost-sharing agreement for Hautapu Interchange, recognising the revised business land allocations under Future Proof/ RPS;	4	Planning the future function and form of Te Rapa Road following the completion of the Te Rapa Section.	HCC and NZTA are developing a form and function statement as part of the state highway revocation process. No longer a critical issue.	4	Continue to apply the Transport Agency revocation policy including agreement of the future form and function of state highway sections identified for revocation throughout the subregion.	Ongoing work is required to develop and agree the form and function statements for the sections of state highway to be revoked.		
5	Agreement of principles to guide revocation of state highway sections.	5	Optimising access to the Hamilton CBD from the Waikato Expressway.	Has been progressed through the agreement of Hamilton Section interchanges and Re-stated and incorporated in Version 3 as part of issue 37	5	Land use changes in the vicinity of Hamilton International Airport	Support Expressway objectives by encouraging early uptake of new alignments/ Expressway Sections as they are completed.		
		6	Optimising the allocation of strategic employment land at Hautapu to take account of a range of outcomes including employment self sufficiency for Cambridge, taking into account constraints including interchange capacity.	Allocation of employment and industrial land has been resolved through the proposed RPS and Proposed Waipa District Plan. No longer a critical issue.			Potential for decisions on land use and connectivity in the vicinity of Airport to adversely affect outcomes sought from the Expressway and Southern Links. Likely to remain a critical issue until land use and development at Airport is more certain. Will include tracking outcomes of Waipa District Plan Review		
		7	Addressing the impacts on the Hamilton South interchange (function and capacity) arising from land use pressures within the catchment for that interchange, through an agreed package of interventions.	Subject to continuing investigation by NZTA and Waikato DC through the South East Hamilton One Network Review	6	Staging and coordination between Wairere Drive and the Hamilton Section	Timing now generally agreed. However other related projects including Hillcrest roundabouts need to be coordinated.		
		8	Developing an agreed approach to determining the future form and function of the state highway sections identified for revocation throughout the subregion.	Carried over into Version 3.0 as Critical Issue 3	7	Develop and agree guidance to support decision making for the location of on-route facilities including motorist services, stock truck effluent facilities and weighstations on Expressway sections.	Drivers for determining optimum locations for on-route facilities are typically beyond the scope of the Expressway projects, although they are likely to be related to the desired outcomes. Clarity is needed in the form of a decision-making framework that identifies the circumstances that would make locations suitable or unsuitable from an Expressway perspective. Individual proposals would need to consider this guidance before seeking an Agency response.		
		9	Determine optimal locations for motorist services, stock truck effluent facilities and weighstations on Expressway sections, and determine route and destination signage for the Expressway.	NZTA updated the Revocation Policy in August 2012. While the approach has been agreed, further consultation is required to develop and agree the form and function statements for the sections of state highway to be revoked. Carried over into version 3.0 as Critical Issue 4					
				New issue specifically identified by RTC. Carried over into Version 3.0 as Critical Issue 7					

Note:

Blue shading => issue closed out or removed from critical status
Red shading => new issue in v3.0

APPENDIX H

Indicative Revocation/ Declaration plans

Appendix H – Indicative Revocation/ Declaration plans

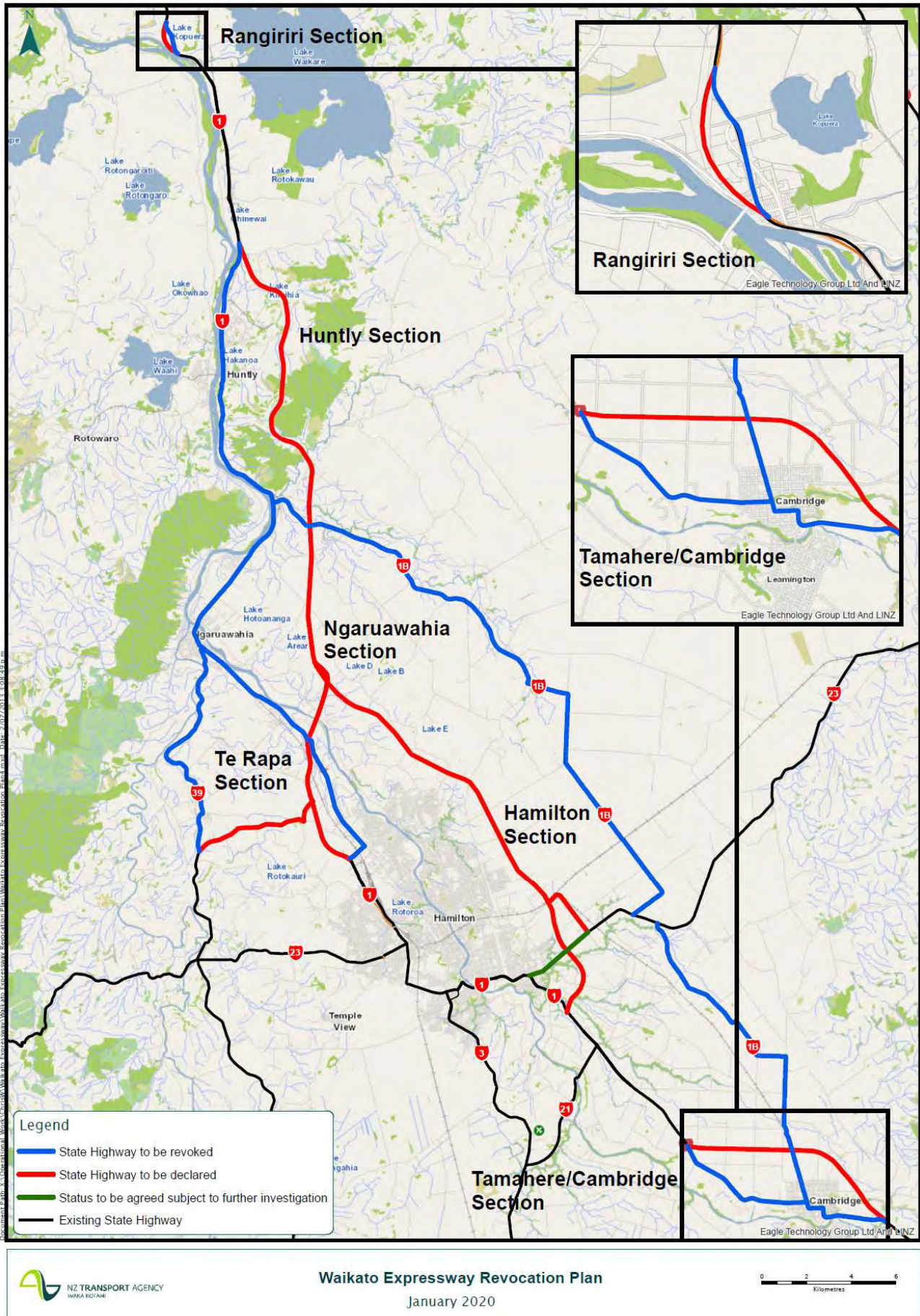


Figure H1 – indicative revocation plan for Waikato Expressway – network as at 2020

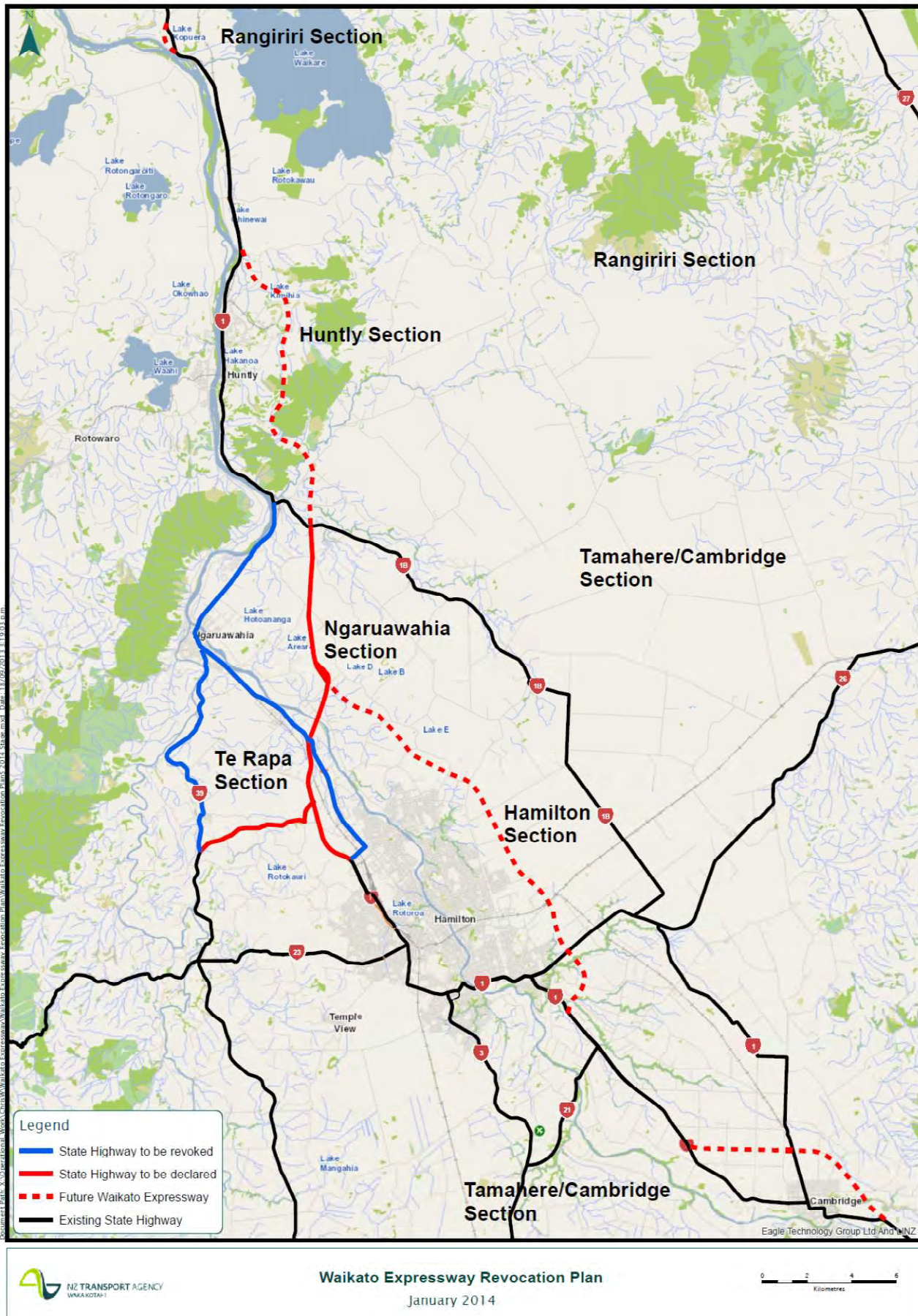


Figure H2 - indicative revocation staging plan for Waikato Expressway - network as at 2014

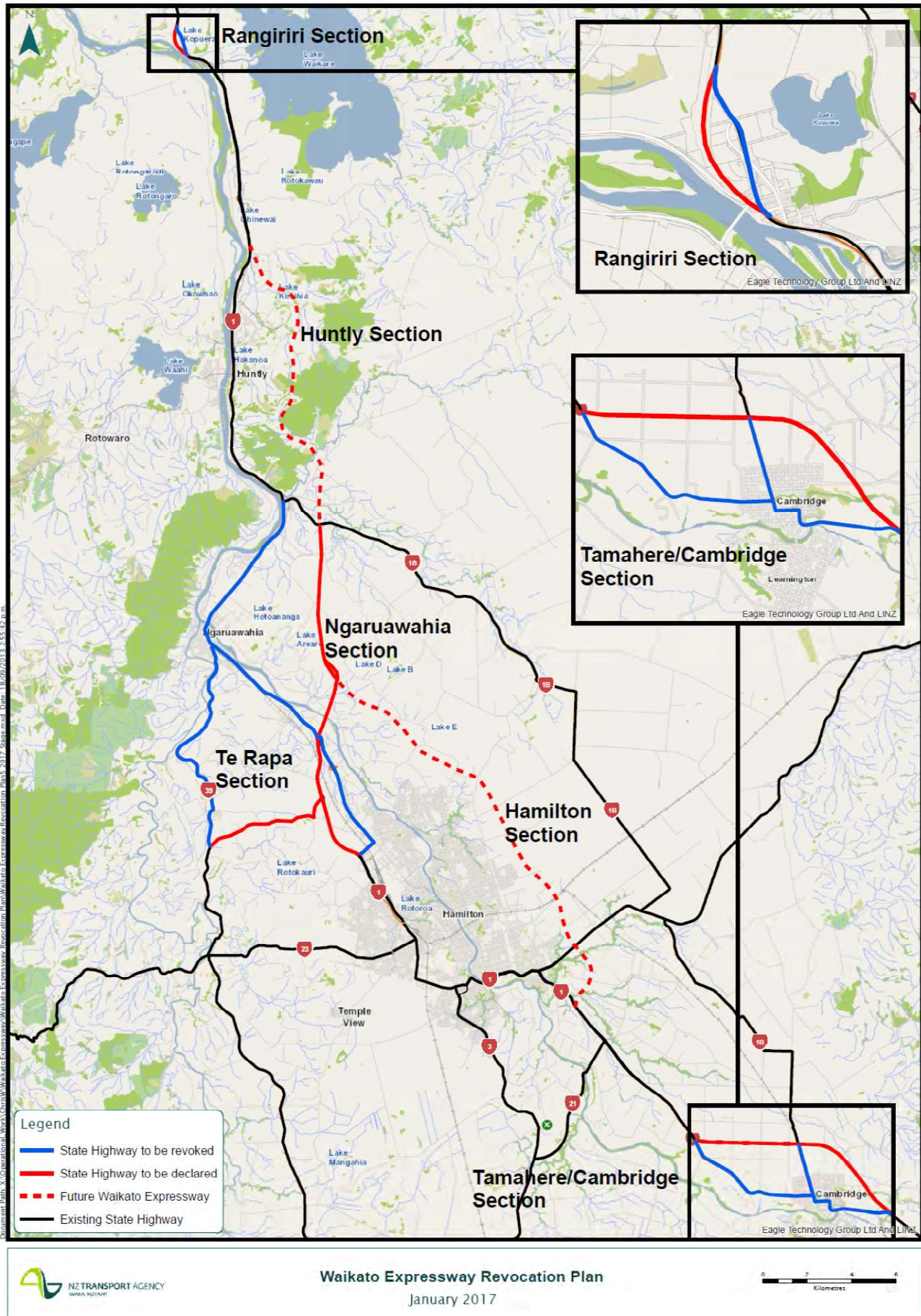


Figure H3 – indicative revocation staging plan for Waikato Expressway – network as at 2017