

Chapter 2  
Part A  
VOLUME 2

# Background to the Project

## Overview

The Expressway route, between Te Kowhai Road in the south and Taylors Road in the north, is the culmination of extensive historical research and more recent investigations into an alternative route to SH1 through this area.

The Project is a key component of a number of national, regional and local transport strategies, policies and plans and forms part of the Wellington Northern Corridor RoNS.

## 2 Background to the Project

### 2.1 Introduction

This chapter provides the following background to the Project:

- History of the Project (Section 2.2);
- Context of the Project (Section 2.3);
- Need for the Project (Section 2.4);
- Benefits of the Project (Section 2.5);
- Project Objectives (Section 2.6); and
- Property Acquisition (Section 2.7).

### 2.2 History of the Project

The Expressway has arisen from decades of consideration as to the best way for the Kāpiti district to deal with growth and provide a safe and efficient route through the district, leading both south to Wellington and north to Levin and beyond. Over time alternatives to the existing SH1 have been referred to variously as a motorway, expressway and arterial road. At the outset of the current project phase in 2010, a detailed review of previous route alternatives was undertaken. A brief summary of this history is outlined below.

#### 2.2.1 Early Plans for a Motorway

Plans for a motorway through the Kāpiti district began as early as 1956, when the Governor-General issued a mid-line proclamation for a "proposed motorway" between Paekakariki and Ōtaki (as part of the Wellington to Foxton Motorway). This route traversed coastal duneland from south of Paraparaumu to north of Levin and was previously referred to as the "Sandhills Route". However, in the late 1980s the mid-line proclamation from Peka Peka northwards was uplifted within the Kāpiti district.

#### 2.2.2 SH1 Studies Undertaken

As the only south to north route available through the Kāpiti district, SH1 carries all national, regional and local through traffic movements. Given predicted population growth in the district, as well as the general national increase in vehicle and trip numbers, traffic congestion, delays and accidents are expected to worsen. This scenario has been known for many years and there have been multiple studies undertaken to investigate efficient upgrades/alternatives to the existing State highway network throughout the area, including those summarised below.

In 1998, Transit NZ (the predecessor to the NZTA) commissioned Meritec to determine the most appropriate route and development options for SH1 between Himatangi (north of Foxton) and Waikanae. The two key options that were identified and considered were coastal and central routes, the central following the existing transport corridor along SH1. The Strategic Study report was completed in January 2000 and recommended a four-lane

highway utilising the existing transport corridor between Levin and Waikanae. The study also recommended that the proposed strategy was publicised and presented to KCDC, Horowhenua District Council, community boards and other interested parties before confirmation of the strategy.

In 2001 Meritec were commissioned to complete a Scheme Assessment Report (SAR) for the section between Ōtaki and Peka Peka Road. The report was presented as two parts comprising the Ōtaki Bypass and the Te Horo Expressway. Six route options and combinations of sub-options were assessed and presented in the SAR in relation to the central route, including detail around each of the options and their respective merits.

In 2003, following public consultation and further investigation into an alternative western route for the Kāpiti Expressway, referred to as the Te Waka Road route, the Transit NZ Board approved a preferred central route following eastern side of SH1 for both the Ōtaki bypass and the Te Horo Expressway. Transit NZ's Board chose not to designate the route at that time due to the likelihood that this section would not be constructed for some 15 years.

In 2005 Transit NZ, together with the GWRC, commissioned a Western Corridor Study, the purpose of which was to investigate the principal options for all transport modes in the Region's western transport corridor (Ngauranga to Ōtaki). The study confirmed the need to develop a four-lane alignment for SH1 from MacKays Crossing to north of Ōtaki as part of a series of multi-modal transportation improvements along this corridor. Following this, Transit NZ commissioned the State Highway 1 Kāpiti Strategic Study (undertaken by Opus) in 2007, which developed and assessed several options for upgrading SH1 within the Kāpiti district, including four-laning.

Between July 2008 and August 2009, the Study revisited the alignment approved by the Transit NZ Board in 2003 as part of a Strategic Study of the Kāpiti Coast. The importance of having a safe and efficient State highway corridor through the Kāpiti district was confirmed in both of the following the studies undertaken:

- Kāpiti Scoping Report by Opus, July 2008; and
- Kāpiti Technical Report by Opus, August 2009.

The 2009 report endorsed the alignment recommended in the 2003 SAR, and recommended further modifications. Modifications were made to remove the proposed interchange at Te Horo to limit growth pressures and to alter the on/off ramps around Ōtaki to improve access. Public engagement for this section was combined with the consultation on options for the M2PP section, and in December 2009 the NZTA Board restated a preference for the central route that follows the existing transport corridor, subject to further design refinements being undertaken.

The above studies highlighted that the current configuration of SH1 through the Kāpiti district gives rise to a number of significant issues, including:

- Safety concerns;
- Congestion and journey time reliability problems; and
- The need to create more efficient journeys for both local and State highway traffic.

### 2.2.3 Roads of National Significance

On 1 July 2012, the updated Government Policy Statement on Land Transport Funding (GPS) prepared under the LTMA came into force, replacing the GPS 2009. The GPS seeks to progress the seven roads of national significance, including the Wellington Northern Corridor RoNS. The NZTA is upgrading the Wellington Northern Corridor in geographic sections, with one of these covering the area between Peka Peka and North Ōtaki.

### 2.2.4 The Expressway Route

The classification of the Expressway as a RoNS highlights its importance not only at a regional scale, but also at a national scale. The main features of the Expressway are summarised below:

- The Expressway is to generally follow the existing transport corridor and follow the western side of the NIMT from Te Kowhai Road to Mary Crest, cross over the railway south of Te Horo and follow the eastern side of the NIMT through to Ōtaki.
- The Expressway includes four lanes from the northern extent of the Peka Peka interchange ramps (proposed to be developed as part of the M2PP Project), through to an interface with the existing SH1 near Taylors Road, a distance of approximately 13km.
- Half-interchanges (with a local road bridge at Ōtaki Gorge Road) will be provided north and south of Ōtaki, together with further local road bridge connections at Rahui Road and Te Horo.
- A new section of local arterial road will be constructed south of Mary Crest (as the Expressway alignment will sit on the existing SH1).
- The Project scope allows for removal of the passing lanes on the existing SH1 near Taylors Road, together with tie-in works to the Expressway.

## 2.3 Context of the Project

### 2.3.1 Strategic Context

The GPS highlights that the Wellington Northern Corridor RoNS is one of seven of New Zealand's most essential routes which require significant development to reduce congestion, improve safety and support economic growth.

The Wellington Northern Corridor RoNS is approximately 110km in length and extends from the Wellington International Airport to Levin. Figure 1-1 in Chapter 1 of this AEE report shows the Kāpiti Expressway section of the Wellington Northern Corridor RoNS.

The objectives that the NZTA has for the Wellington Northern Corridor RoNS are:

- To enhance inter-regional and national economic growth and productivity;
- To improve access to Wellington's CBD, key industrial and employment centres, port, airport and hospital;
- To provide relief from severe congestion on the State highway and local road networks;
- To improve the journey time reliability of travel on the section of SH1 between the Wellington International Airport and Levin; and
- To improve the safety of travel on State highways.

Implementation of the Wellington Northern Corridor RoNS programme will be ongoing, with sections of the route being developed at different stages. The Project is part of a bigger roading package that will deliver on the above objectives, i.e. the benefits are dependent on all of the projects being completed.

### 2.3.2 National Context

At a national level, the Project fits within a number of strategic initiatives including:

- The GPS;
- The National Infrastructure Plan 2011 (NIP); and
- The NZ Transport Strategy 2008 (NZTS).

The GPS contains guidance for the NZTA on what the Crown wishes to achieve from the allocation of funding from the National Land Transport Fund (NLTF) towards activities in the land transport sector. It covers the financial period to 2021/22. The GPS states that the short to medium term impacts expected to be achieved through the use of the NLTF are:

- *Improvements in the provision of infrastructure and services that enhance transport efficiency and lower the cost of transportation through:*
  - *improvements in journey time reliability*
  - *easing of severe congestion*
  - *more efficient freight supply chains*
  - *better use of existing transport capacity.*
- *Better access to markets, employment and areas that contribute to economic growth.*
- *Reductions in deaths and serious injuries as a result of road crashes.*
- *More transport choices, particularly for those with limited access to a car.*
- *A secure and resilient transport network.*
- *Reductions in adverse environmental effects from land transport.*
- *Contributions to positive health outcomes.*

The GPS is also complemented by the NIP, the second version of which was released in June 2011. The NIP outlines the Government's intentions for infrastructure development over a 20-year timeframe. The NIP is discussed further at chapter 34, Volume 2 of this AEE report.

The Project also sits within the context of the NZTS, which was developed in 2002 and updated in 2008. This Strategy applies to both road and rail, and its vision is that by 2040:

*People and freight in New Zealand have access to an affordable, integrated, safe, responsive and sustainable transport system.*

The objectives of the NZTS are:

- *ensuring environmental sustainability;*
- *assisting economic development;*
- *assisting safety and personal security;*
- *improving access and mobility; and*
- *protecting and promoting public health.*

### **2.3.3 Regional Context**

The Project is proposed within the context of a number of inter-related strategic regional transport initiatives, including the:

- Wellington RLTS 2010–2040;
- Western Corridor Plan 2006 (WCP);
- Wellington Regional Strategy 2007 (WRS); and
- Wellington Regional Land Transport Programme 2009-2012 (WRLTP).

### **2.3.4 The Wellington Regional Land Transport Strategy 2010-2040**

The Wellington Regional Land Transport Strategy 2010-2040 is discussed in chapter 34, Volume 2 of this AEE report.

### 2.3.5 The Western Corridor Plan 2006

The WCP was adopted by GWRC in April 2006. Although the WCP outlines plans from "Ōtaki to Ngauranga Merge" its focus is on the Transmission Gully Motorway and the WLR. There is limited discussion on the Project section of the Kāpiti Expressway. Since the adoption of the WCP in 2006, the shape of many of the projects involved in the Wellington Northern Corridor RoNS have changed by varying degrees. Given the limited discussion on the Project within the WCP, the applicability of the WCP to the Project is minimal, other than in relation to the high level objectives identified.

### 2.3.6 The Wellington Regional Strategy 2007

The WRS is discussed in Chapter 33.8.13 of this AEE report.

### 2.3.7 The Wellington Regional Land Transport Programme 2012-2015

The WRLTP is a three year programme that contains all the land transport activities to be undertaken throughout the region for the three years between 2012 and 2015, as well as indicative activities over the following three financial years, plus a ten-year financial forecast.

As well as maintaining the current transport network, these activities include:

- New public transport infrastructure and services;
- Improved local roads and State highways;
- Walking and cycling projects; and
- Road safety improvements and programmes.

The priorities in the WRLTP respond to the key outcomes sought by the WRLTS and are consistent with the outcomes sought by the GPS. The Expressway is specifically identified in the WRLTP as a significant project.

The WRLTP is further discussed in Chapter 33.8.16 of this AEE report.

## 2.4 Need for the Project

The importance of improvement of the State highway network throughout the Kāpiti district has been identified by a number of studies. The SH1 network faces a number of transportation issues throughout the district. These include:

- Traffic characteristics;
- Safety;
- Population increases;
- Access, congestion and reliability;
- Route security;
- Freight movement; and
- Amenity and social effects, including effects on walking and cycling.

The focus of the State highway network is on moving people and freight between and within the main centres of New Zealand as safely and efficiently as possible. The local network and community objectives and needs are also important in considering the need for the Project given the dual function that SH1 currently provides. The Project therefore seeks to achieve an integrated network that also facilitates local trips and modal choice, while recognising that the transformation of current SH1 to a local road is the subject of a separate statutory process.

### 2.4.1 Traffic Characteristics

Key problems with the existing SH1 through the Project area are safety and the severe congestion caused at peak periods, especially at weekends and over public holidays, in particular through Ōtaki. Whilst journey times at other periods are within generally acceptable limits for the speed environment, the route experiences a reduction of levels of service when traffic volumes are high. The congestion at peak times has not allowed efficient access to local roads in the Kāpiti district as an effective, parallel local road network does not exist.

The Project provides an opportunity for traffic congestion relief to improve journey times and the separation of regional and local traffic by providing an effective alternative route.

### 2.4.2 Safety

The current form of SH1 throughout the Project area is sub-standard in part because it caters for local road and through traffic functions. This creates friction along the highway, slowing traffic flow and increasing the risk of crashes occurring. The existing SH1 has seen a high number of crashes due to the lack of traffic separation and the number of local access points onto the highway.

There were 11 serious and one fatal crashes, 12 in total, on the existing SH1 along the Project area between 1 July 2007 and 30 June 2012. The majority of these are mid-block rather than intersection related. Mid-block accidents include head-on collisions as well as those arising from turning manoeuvres. The fatal crash occurred in the 100km/h section of SH1. The highest concentration of crashes has occurred in the 50km/h zone through Ōtaki, although these have generally been non-injury and low speed as would be expected in a developed area.

Arterial roads that are not separated by a median have a history of accidents occurring, especially where the high traffic volumes using the road means that getting on and off the State highway can be dangerous. The existing SH1 from Peka Peka to North Ōtaki is assessed as medium/medium-high risk under the New Zealand Road Assessment Programme "KiwiRAP". The Expressway provides the opportunity to reduce community severance and improve safety through the provision of safe grade separated connections through which local and regional traffic are divided and traffic (including significant through traffic) in urban areas is reduced. All of these aspects are expected to result in significantly improved safety outcomes.

The NIMT / Expressway alignment will improve rail/road safety with the removal of five of the eight level crossings within the Project area.

### 2.4.3 Population Growth along the Kāpiti Coast

The population of the Wellington region is expected to increase by approximately 65,000 people over the next 20 years, with a key growth area being the Kāpiti district. The Expressway is needed to provide capacity to meet the growing needs that will be placed on the Wellington Northern Corridor.

The Kāpiti district is experiencing high growth and is one of the fastest growing districts in the Wellington Region and lower North Island. In just five years the population grew nearly 10%, from approximately 46,200 at the 2006 census, to an estimated 49,400 at 30 June 2010.

There are areas of planned development in Ōtaki which, if progressed, would place even greater demand on the use of SH1 as a commuter route. One of these areas is the North Ōtaki Future Urban Development Zone identified in the recently notified proposed KCDP. There is also increasing intensification of rural activity, particularly the horticulture and viticulture industries. The effect of the Project on future activities that are yet to go

through the required statutory processes is considered to the extent known and practicable, and is discussed throughout this AEE report.

#### 2.4.4 Greater Ōtaki Vision

The GOV document is an output of the KCDC Long Term Council Community Plan (LTCCP), also known as 'Choosing Futures'.

The GOV seeks to focus / manage future population and employment growth within the existing Ōtaki urban area in a way that:

- Takes a sustainable development approach;
- Respects the character of the town;
- Consolidates development within existing zoned residential areas;
- Makes efficient use of town services;
- Encourages sustainability through grey water and rain water systems, and pollution minimisation; and
- Clearly creates work opportunities for the community.

The GOV proposes that there is no new urban development at Te Horo Beach and the previously proposed Te Horo future urban growth area is removed. A focus on urban development in Ōtaki is preferred instead. Appropriate consideration of interchange locations for the Project was important in recognising these goals.

#### 2.4.5 Access, Congestion and Reliability

The SH1 network through the Kāpiti district is a key transportation link to and from Wellington City. During peak periods, it is for a large part operating beyond its design capacity. Journey times at other times are within generally acceptable limits. SH1 provides for both local and through traffic and includes uses for commuting, business and recreational purposes. The combined servicing of both local and through traffic further exacerbates congestion issues.

As population levels in the Kāpiti district increase, there will be increased pressure placed on the SH1 network to cater for traffic with different purposes. Local traffic on the SH1 network will increase, placing further stress on the network and increasing existing congestion effects. At present there is already unreliability in travel time throughout the area, which is particularly evident during peak times such as weekends and public holidays.

The lack of a parallel local road to SH1 in the current roading network between Peka Peka and Ōtaki also affects reliability. Any obstruction to the traffic flows on SH1 affects both local and through traffic, as well as emergency vehicles and civil defence. There is also no alternative road network crossing of the Ōtaki River.

The Expressway, with a speed limit of 100kmph and with limited side access, will increase reliability in journey times and minimise congestion, particularly in Ōtaki. This in turn will improve local accessibility for communities using the local road network.

#### 2.4.6 Route Security

In the event of a serious accident or emergency on SH1, there are limited alternative routes that can be utilised. The existing Ōtaki River Bridge is the only public road bridge across the Ōtaki River. A serious earthquake or flood, resulting in the Ōtaki River Bridge being unusable, would close access along SH1. The detour length for vehicles is significant, as motorists would have to travel via SH2 through the Wairarapa. This would add 65km to a journey between Wellington and Palmerston North. The proposed Expressway will improve the route security and resilience.



### 2.4.7 Freight Implications

One of the goals of the NZTS is environmental sustainability, which supports increases in the proportion of freight moved by both shipping and rail. However, even with increased use of those modes, it is expected that road-based freight movement will grow significantly in the coming years, both as through traffic and within the Kāpiti district.

The Expressway will assist in achieving reliability relating to both freight operating costs and time of freight in transit throughout the region. Speed limits in place in both Ōtaki and Te Horo are limitations on the efficiency of travel times, particularly during peak times. This is of particular relevance and importance for the freight industry, as the operating cost for trucks increases with any stoppage or breaking / accelerating.

The NIMT realignment will also result in freight movement improvements, in terms of removing some level crossings and easing a bend in the NIMT.

### 2.4.8 Amenity and Social Effects (Including Walking and Cycling)

SH1 has competing demands due to its dual function, catering for both local road and State highway movements. SH1 is the main highway link between Wellington and Auckland, and therefore carries a high volume of through traffic and many trucks. However, within the Project area it is also the only link connecting each of the local communities and plays an important role providing local access.

Within the Ōtaki Railway Retail area there are a variety of shops and cafes located along SH1 with on-street parking and pedestrian crossing facilities. The high turnover rate of the on-street parking, turning movements (to/from intersections and accesses), and high pedestrian crossing demand, results in significant delays to through traffic. The high volume of through traffic and trucks in particular also results in poor amenity for pedestrians and people shopping in the Ōtaki Railway Retail area.

Between Peka Peka and Ōtaki very few facilities for non-motorised users (pedestrians and cyclists) are currently provided along SH1. The lack of facilities, combined with truck and traffic volumes and high vehicle speeds, makes travelling along the existing SH1 undesirable for most non-motorised road users. Additionally, the distances between most destinations are too great for walking or cycling to be a viable mode of transport for many people. However, serious road cyclists are observed riding along SH1, particularly on weekends.

## 2.5 Benefits of the Project

### 2.5.1 Project Benefits

The completion of the Project will assist in both regional and national economic growth and have a number of other key benefits, including those set out below.

- The Project will achieve significant safety improvements for users of transport networks, through:
  - the separation of local traffic from State highway traffic travelling through the Kāpiti district;
  - improved road standards, due to the geometric design of the Expressway (including continuous median separation of north- and south-bound traffic); and
  - an enhanced traffic environment on the local road network (which will include the current SH1), with benefits for motorists, cyclists, and rail users due to:
    - fewer vehicles using the current SH1;

- the provision of grade-separated local road connections (i.e. bridges) across the Expressway and NIMT; and
  - the removal of five of the eight level crossings of the NIMT in the Project area.
- The Project will promote economic development, including through:
  - improvements in efficiency for freight movements and reduced travel times;
  - the reduction of traffic through the Ōtaki Railway Retail area, improving the amenity values<sup>13</sup> of that area as a social, employment, retail, and transport centre; and
  - increased economic activity and employment opportunities during the Project's four-year construction period.
- The Project will enhance connections between communities in the Kāpiti district, through:
  - the provision of the Expressway as an alternative route; and
  - the continued availability of the existing SH1 as part of the local road network, with a safer, improved transport environment (as discussed above).
- The Project will result in reduced and more reliable travel times along key routes, and reduced traffic congestion.
- As part of the Wellington Northern Corridor RoNS, the Project will improve access to Wellington's key facilities such as the port, international airport, hospital, and central business district.
- The Project is "lead infrastructure", in that it will meet the future needs of a growing population, as well as foster economic growth in the ways summarised above.
- The Project will improve route security and resilience of the road network in the event of a significant earthquake, road accidents, or other disruption, by providing a high-quality alternative route between Peka Peka and Ōtaki (including two bridges providing alternative crossings of the Ōtaki River).
- The Project has a high degree of alignment with key strategic planning instruments for the Kāpiti district, including the GOV.

## 2.6 Project Objectives

### 2.6.1 NZTA Project Objectives

How the Expressway fits within the overall Wellington Northern Corridor RoNS objectives is shown in Table 2-1 below.

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<sup>13</sup> "Amenity values" are those natural and physical qualities and characteristics of an area that contribute to people's appreciation of its pleasantness, aesthetic coherence, and cultural and recreational attributes.

**Table 2-1: The Objectives of the Wellington Northern Corridor RoNS and the link to the Project**

GPS	Wellington Northern RoNS	Peka Peka to Ōtaki
<b>Support economic growth</b>	To enhance inter-regional and national economic growth and productivity.  To improve access to Wellington's CBD, key industrial and employment centres, port, airport and hospital.	By: Providing a significantly improved transport link as an integral part of the Levin to Wellington Airport RoNS.  By: Achieving a state highway to expressway standards that connects with the Mackays to Peka Peka and Ōtaki to Levin sections of the Levin to Wellington Airport RoNS; and Efficiently serving the Ōtaki township, its future development and the wider Ōtaki area.
<b>Reduce congestion</b>	To provide relief from severe congestion on the state highway and local road networks.  To improve the journey time reliability of travel on the section of SH1 between Levin and the Wellington airport.	By: Aligning traffic types and movements with the most appropriate route by separating through traffic from local traffic.
<b>Improve safety</b>	To improve the safety of travel on state highways.	By: Separating regional and local traffic, limiting access to the expressway and providing local grade separated access across the expressway at Te Horo.

The overall Project objectives for NZTA can be summarised as follows:

*To provide a modern 4-lane expressway that will support economic development by providing a strategic arterial route to improve trip reliability and efficiency through the Wellington region. The Project will provide legible connections to Ōtaki township, and provide for community connections across the corridor. The expressway is to be integrated with the Greater Ōtaki Vision, and opportunities to enhance urban and landscape outcomes are to be explored.*

The Project-specific objectives for the NZTA components of the Project are:

- To:
  - Enhance inter-regional and national economic growth and productivity;
  - Enhance efficiency and journey time reliability from, to and through the Kāpiti district, Wellington's CBD, key industrial and employment centres, the port, airport and hospital;
  - Enhance safety of travel on SH1; and
  - Appropriately balance the competing functional performance requirements of inter-regional and local traffic movements, and to facilitate others to provide modal choice opportunities, to enable local facilities and amenities in the Kāpiti district to be efficiently accessed;

by developing and constructing a cost-efficient new State highway to expressway standards between Peka Peka and north of Ōtaki.
- To manage the immediate and long-term social, cultural, land use and other environmental effects of the Project on the Kāpiti district and its communities by, so far as reasonably practicable, avoiding, remedying or mitigating any adverse effects through route and alignment selection, expressway design and conditions.
- To integrate the Expressway into the form of Kāpiti district by taking into account current and planned future land use and development in route and alignment selection, expressway design and conditions.
- To work with NZ Railways Corporation/KiwiRail to achieve an integrated design for both the Expressway and the realigned NIMT.
- To efficiently serve Ōtaki and its future development by providing appropriate vehicle access and signage to and from the Expressway.

## 2.6.2 KiwiRail Project objectives

The Project objectives are part of KiwiRail's overall direction to operate, maintain, renew and upgrade the rail network, while improving safety on the network and contributing to sustainability through providing an alternative to road transport.

The broader context in which KiwiRail operates is outlined in two key cascading documents. These are the NZTS and the National Rail Strategy 2002-2015 (NRS).

The NZTS sets out the following strategic goals for roads and rail, and identifies targets to achieve them:

- Ensuring environmental sustainability;
- Assisting economic development;
- Assisting safety and personal security;
- Improving access and mobility; and
- Protecting and promoting public health.

KiwiRail's particular objectives for the Project are to:

- Support NZTA's objectives, as stated above, and facilitate the development of the Expressway;
- Continue to establish and maintain safe and efficient rail passenger transport services within the region by providing a functional and connected rail network infrastructure and services;
- Encourage economic development and provide for the development of safe public transport services;
- Allow for stations that are easily accessible and serve the needs for existing and future communities;
- Future proof for potential double tracking and other rail network improvements in the future; and
- Achieve a connected and integrated transport network.

## 2.7 Property Acquisition

### 2.7.1 Overview

The properties directly affected by the Project fall into two broad categories:

- Property to be acquired in whole or in part for the Project; and
- Property with an easement or other property right in its favour (including rights-of-way and water rights) that is directly affected by the Project.

The directly affected properties include land owned by the Crown (including Crown land managed by KiwiRail, NZTA, the Office of Treaty Settlements, and Land Information New Zealand (LINZ)), GWRC and KCDC land (including road reserves), as well as privately owned land comprising rural, rural-residential, urban residential and industrial or business landholdings.

Property acquisition is required along the Expressway and realigned NIMT, and also for land required for local road access and linkages. Of the 122 properties required to be either fully or partly purchased for the Project, 25 properties have already been acquired by the Crown.

## 2.7.2 Public Works Act processes

### Land Acquisition

The Crown has the ability to acquire land, either in its entirety or in part, under the Public Works Act 1981 (PWA).

### Temporary Land Occupation

Temporary occupation of a number of properties will be required for the construction of the Project, but those properties are unlikely to be purchased as they are not required for the operation of the Expressway in the long term. Construction activities that will require the temporary occupation of land include:

- Construction yards, for storage of heavy machinery and equipment, and Project offices;
- Lay down areas (such as storage areas for pre-cast concrete);
- Fill sites;
- Temporary road diversions; and
- Construction vehicle access tracks, through areas where ground conditions are unfavourable.

The PWA process allows for the temporary occupation of land to carry out construction activities. Through this process, arrangements can be made so that the owners are not unduly disadvantaged by, and are compensated for, the use of their land.

Properties that will be occupied for construction activities are to be designated for roading purposes (should the relevant NoR be confirmed). Once construction of the Project has been completed, the NZTA and KiwiRail will review the designation footprint and uplift the designations from areas of land not required for the operation of the Project.

### Access, Easements and other Property Rights

A number of private properties have existing property rights in their favour, such as right-of-ways, water supply arrangements and other easements, which will be potentially affected by the Project. Agents for the Crown have met with property owners and discussed alternatives to the current situation. Some of the methods proposed to address affected property rights include the following:

- Where there is available balance land around the Expressway, the provision of service lanes and realigned private driveways has been considered, in conjunction with KCDC, in order to maintain the local road network (including any new or realigned access roads that will become local roads);
- Where legal frontage onto a public road is severed, methods have been investigated to provide a future road frontage or alternative access;
- Where property access has been severed and a workable solution cannot be found, full acquisition of the property has been considered (for example, where sole right-of-way access has been severed and the property becomes 'landlocked'); and
- Potential effects on groundwater will be monitored, and alternative water supplies will be provided for all those with lawfully established water rights that are affected. The Arcus Road irrigation scheme supply pipeline crosses the Expressway and will be maintained.