Waikato Expressway
Hamilton Section

Notice of Requirement to Alter the Designation

Ruakura Interchange

August 2014
Signed by: 
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Highway Manager
NZ Transport Agency
Pursuant to an authority by NZ Transport Agency

Dated this 29\textsuperscript{th} August 2014

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2F - Air

2G - Contamination

2H - Stormwater

2I - Social

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## Glossary of Terms:

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AEE</td>
<td>Assessment of Environmental Effects</td>
</tr>
<tr>
<td>Agency</td>
<td>New Zealand Transport Agency</td>
</tr>
<tr>
<td>CMP</td>
<td>Construction Management Plan</td>
</tr>
<tr>
<td>HCC</td>
<td>Hamilton City Council</td>
</tr>
<tr>
<td>HCV</td>
<td>Heavy Commercial Vehicle</td>
</tr>
<tr>
<td>HPA</td>
<td>Historic Places Act 1993</td>
</tr>
<tr>
<td>LOS</td>
<td>Level of Service</td>
</tr>
<tr>
<td>LTMA</td>
<td>Land Transport Management Act 2003</td>
</tr>
<tr>
<td>NOR</td>
<td>Notice of Requirement</td>
</tr>
<tr>
<td>HNZ</td>
<td>Heritage New Zealand</td>
</tr>
<tr>
<td>NZS</td>
<td>New Zealand Standard</td>
</tr>
<tr>
<td>Opus</td>
<td>Opus International Consultants</td>
</tr>
<tr>
<td>PIR</td>
<td>Project Investigation Report</td>
</tr>
<tr>
<td>PPC</td>
<td>Private Plan Change</td>
</tr>
<tr>
<td>Project</td>
<td>The Waikato Expressway-Hamilton Section</td>
</tr>
<tr>
<td>PT</td>
<td>Public Transport</td>
</tr>
<tr>
<td>PWRPS</td>
<td>Proposed Waikato Regional Policy Statement – also referred to as PRPS</td>
</tr>
<tr>
<td>RLTS</td>
<td>Waikato Regional Land Transport Strategy 2007</td>
</tr>
<tr>
<td>RMA</td>
<td>Resource Management Act 1991</td>
</tr>
<tr>
<td>RoNS</td>
<td>Roads of National Significance</td>
</tr>
<tr>
<td>RPS</td>
<td>Waikato Regional Policy Statement</td>
</tr>
<tr>
<td>SARA</td>
<td>Scheme Assessment Report Addendum</td>
</tr>
<tr>
<td>SH1</td>
<td>State Highway 1</td>
</tr>
<tr>
<td>TDM</td>
<td>Travel Demand Management</td>
</tr>
<tr>
<td>TGH</td>
<td>Tainui Group Holdings Ltd</td>
</tr>
<tr>
<td>TWEAR</td>
<td>Tangata Whenua Effects Assessment Report</td>
</tr>
<tr>
<td>TWWG</td>
<td>Tangata Whenua Working Group</td>
</tr>
<tr>
<td>vpd</td>
<td>Vehicles per day</td>
</tr>
<tr>
<td>WDC</td>
<td>Waikato District Council</td>
</tr>
<tr>
<td>WRC</td>
<td>Waikato Regional Council</td>
</tr>
<tr>
<td>WRP</td>
<td>Waikato Regional Plan</td>
</tr>
<tr>
<td>WRPS</td>
<td>Waikato Regional Policy Statement (Operative) – also referred to as RPS</td>
</tr>
<tr>
<td>WRTM</td>
<td>Waikato Regional Transportation Model</td>
</tr>
</tbody>
</table>
1 Introduction

1.1 Overview

The NZ Transport Agency (the Agency) has prepared this Notice of Requirement (NOR) to alter the designation for the Hamilton Section of the Waikato Expressway (Hamilton Section) in order to accommodate an interchange at Ruakura, and relocate Ruakura Road. This alteration is required in response to the Ruakura Development by Tainui Group Holdings (TGH) as described in further detail later in this report.

This report provides the documentation, including an assessment of environmental effects, to support the NOR to alter the designation.

1.2 New Zealand Transport Agency

The Agency is a Crown entity, and its objective pursuant to section 94 of the Land Transport Management Act (LTMA) is to contribute to an integrated, safe, responsive, affordable and sustainable land transport system. One of the Agency’s current projects is planning for and delivering Roads of National Significance (RoNS).

1.3 Roads of National Significance

In May 2009, the Government Policy Statement on Land Transport Funding (GPS) was released which identified seven RoNS, which are considered by the Government to be the country’s most important transport routes requiring significant development to reduce congestion, improve safety and support economic growth. The Waikato Expressway is one of the seven RoNS.

The purpose of listing particular roads as nationally significant was to ensure these priority roading projects are taken into account fully in the development of the National Land Transport Programme. The Government expects that planning for the future development of the land transport network should reflect the importance of these roads from a national perspective and the need to advance them quickly.

Continuing to progress the RoNS (including the Waikato Expressway) has also been identified in the 2012 GPS.

1.4 Waikato Expressway

The Waikato Expressway will extend from the Bombay Hills in the north to just south of Cambridge, and has been divided into 12 sections (see Figure 1-1). It is expected the Expressway will:

- Improve economic growth and productivity for Auckland, Waikato and Bay of Plenty through more efficient movement of people and freight between Auckland, Hamilton, Tauranga and Rotorua;
- Improve the reliability of the transport network by providing a more robust and safer road network between Auckland, Hamilton, Tauranga and Rotorua;
- Reduce travel times between Waikato and Auckland; and
• Support the growth strategy for the central Waikato.

Figure 1-1 – Map of the Waikato Expressway
1.5 Waikato Expressway – Hamilton Section

The Hamilton Section is located on the eastern side of the city of Hamilton. The Hamilton Section adjoins the recently completed Ngaruawahia Section to the north, and the existing Tamahere Interchange to the south. It is approximately 22km in length. Figure 1-2 shows the scope of the Hamilton Section.

![Proposed Scope of Works - Waikato Expressway Hamilton Section](image-url)
1.6 **Project Specific Objectives**

The project specific objectives for the Hamilton Section as set out by the Agency are as follows:

- **a)** Contribute to the GPS priorities of national economic growth and productivity;
- **b)** Take into account the principles of the Treaty of Waitangi;
- **c)** Form part of an ultimate expressway facility between Auckland and Cambridge;
- **d)** Provide a high level of service and safety for inter-regional and inter-centre traffic for a planning horizon of at least 30 years;
- **e)** Provide for the safe and efficient movement of state highway traffic between Hamilton and major destinations to the north of Hamilton;
- **f)** Minimise any adverse impacts and improve where feasible, the natural, physical, cultural and social environment of the region;
- **g)** Provide an appropriate return on investment for the project as a whole; and
- **h)** Maximise the economic viability of the project as measured by its Benefit/Cost Ratio and general value for money principles.

1.7 **Ruakura Interchange – Proposed Alteration**

The purpose of this NOR is to alter the existing designation and specifically includes the following:

- Widening of the existing Expressway designation to accommodate the Ruakura Interchange ramps, connecting roundabouts, and stormwater wetland;
- Closure of the existing Ruakura Road either side of the Expressway and consequently shortening of the proposed bridge over the East Coast Main Trunk (ECMT) rail line;
- Retention of the existing Ruakura Road either side of the closure at the Expressway in order to provide continued property access to residents on Ruakura Road, including access to Percival and Ryburn Roads as currently provided;
- Relocation of Ruakura Road between the Ruakura Road/Silverdale Road intersection and the existing Ruakura Road near the Vaile Road intersection to connect with the proposed Ruakura Interchange, including:
  - Existing Ruakura Road/Silverdale Road intersection closed, with Silverdale Road terminating in a cul-de-sac (road retained for access) and creation of a new signalised relocated Ruakura Road/Silverdale Road intersection that will also provide a key access point to the Ruakura Development Logistics Area;
  - New relocated Ruakura Road/Existing Ruakura Road (west) priority controlled tee intersection;
  - A signalised intersection along the relocated Ruakura Road to provide a second key access point to the Ruakura Development Logistics Area;
• Provision of a tee intersection where the relocated Ruakura Road meets the existing Ruakura Road (east);

• Upgrading the existing Ruakura Road, largely within its existing boundaries, between the new intersection with the relocated Ruakura Road (east) and the Ruakura Road/SH26 intersection (this will include shape correction of the roadway, carriageway widening, provision of a footpath and drainage improvements);

• Extension of the designation to cover the existing Ruakura Road (from the intersection with the relocated Ruakura Road up to SH 26) so upgrading works can be undertaken;

• Provision for the relocated Ruakura Road to pass either over or under the Expressway; and

• Provision for stormwater attenuation and disposal from the relocated Ruakura Road and Ruakura Interchange.

Refer to Figure 1-3 below for the Scope of Works. Detailed designation plans are provided as Appendix C.

Subject to the Ruakura Interchange proceeding, the proposed north facing ramps where the Expressway passes under SH26 would not be required. Accordingly, a condition is proposed that would result in the north facing ramps being removed from the Waikato Expressway, once the Ruakura Interchange is under construction.

The relocated Ruakura Road west of the Expressway will become a local road, whereas the section of road to the east will become state highway as will the section of existing Ruakura Road through to State Highway 26.

Figure 1-3 – Scope of Works
2 Background

2.1 Existing Designations and Conditions

The route selection and alignment of the Hamilton Section was determined as part of a wider project which commenced in 1995 and covered the long term development of State Highway 1 (SH1) between Ohinewai and Cambridge. The NoR for the original designation was lodged in 2001 and the designation was secured in 2005, following an appeal hearing before the Environment Court in 2004.

Key aspects of the designated route are:

- The need for the Hamilton Section of the Expressway to provide convenient and efficient connections to the City's arterial network - as well as providing for the efficient and uninterrupted passage of inter-regional traffic on the nation's primary trunk route;
- A decision by the Agency that the Hamilton Section should pass to the east of Hamilton City - rather than to the west;
- A decision by the Agency confirming that the southern end of the route is to link into the existing State Highway at Tamahere - rather than link directly into the designated Cambridge Bypass via an alignment generally following the Cambridge Branch rail line. This issue was the main focus of the appeal hearing in 2004.

Table 2-1 summarises the existing designations for the Hamilton Section and other existing relevant designations by the Agency.

<table>
<thead>
<tr>
<th>District</th>
<th>District Plan Map No.</th>
<th>Code</th>
<th>Activity</th>
<th>Location</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waikato</td>
<td>1, 3, 4, 8, 13, 14</td>
<td>J1</td>
<td>State Highway 1 (Limited access except those parts within the former boroughs of Huntly and Ngaruawahia as at October 1989, and that part of Taupiri between Mangawara bridge and Kainui Road)</td>
<td>From Franklin District/Waikato District boundary north of Meremere to Hamilton City/Waikato District boundary at Ruffell Road, and then from Hamilton City/ Waikato District boundary at Newell Road to Waipa District/Waikato District boundary at Racecourse Road</td>
<td></td>
</tr>
<tr>
<td>Waikato</td>
<td>14, 15, 19</td>
<td>J3</td>
<td>State Highway 26 (limited access)</td>
<td>From Hamilton City/Waikato District boundary at Matangi Road to Matamata Piako District/Waikato District boundary</td>
<td></td>
</tr>
<tr>
<td>Waikato</td>
<td>37, 14, 20, 22, 24A</td>
<td>J17</td>
<td>Road for state highway and road for access to state highway (Waikato Expressway, Hamilton Bypass.)</td>
<td>Lake Road to Bollard Road</td>
<td>Designation lapses in 2015</td>
</tr>
</tbody>
</table>
Ruakura Interchange – Notice of Requirement

<table>
<thead>
<tr>
<th>District</th>
<th>District Plan Map No.</th>
<th>Code/Activity</th>
<th>Location</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hamilton</td>
<td>2, 3</td>
<td>90 Hamilton Bypass – State Highway and Access to State Highway</td>
<td>Kay Road to Gordonton Road</td>
<td>Designation lapses in July 2022</td>
</tr>
<tr>
<td>Hamilton</td>
<td>20, 21, 30, 31, 40, 48, 49</td>
<td>90a To manage the State highway system, including planning, funding, design, supervision, construction, and maintenance and operations, and improvements in accordance with the Land Transport Act 2003 and the Government Roading Powers Act 1989.</td>
<td>Greenhill Road to Mangaonua Gully (rollover from Waikato District Plan)</td>
<td>Designation lapses in 2015</td>
</tr>
</tbody>
</table>

**Table 2-1 – Existing Designations**

There are four sets of conditions that currently relate to the existing Hamilton Section designation. These are:

- NOR 1 – Waikato District – Horotiu to Tamahere;
- NOR 2 – Hamilton City – Horotiu to Tamahere;
- NOR1A – Waikato District – Alterations C, U, V, W, T and Z to designation J17; and
- NOR1B – Hamilton City – Alteration W to designation E90A.

The conditions referred as NOR1 and NOR2 were confirmed with the original designation in 2005, following the Environment Court hearing in 2004. The NOR2 conditions only relate to a portion of the designated Expressway between Kay Road and Horsham Downs Road. These conditions were required because at that time only this section of the designated Expressway was located within Hamilton City, with the balance of the designated Expressway being within the Waikato District. Since that time, the boundary between the two territorial authorities has changed, but the physical location of the designations has remained the same. As a consequence, the NOR1 conditions originally for the designation located within the Waikato District now apply to some of the designation located within Hamilton City. Only the NOR1 conditions apply to the designations to be altered by this NOR for the Ruakura Interchange, being J17 – Waikato District Plan, and E90a Hamilton City Proposed District Plan.

During the 2014 hearing of alterations to designation (refer 2.2 below), a revised set of conditions was developed, based on those contained in NOR1. The revised conditions are referred to as NOR1A (for those areas within Waikato District) and NOR1B (for those areas within Hamilton City). It is proposed that these conditions also apply to the Ruakura NOR, with some specific amendments to address unique aspects of this alteration. A full set of proposed conditions based on the NOR1A and NOR1B conditions is provided in Appendix A.

### 2.2 Alterations to the Designation

On 30 September 2013, the Agency lodged a NOR detailing a series of alterations to the existing designation. The NOR was divided into two bundles. The first bundle included the following alterations to the designation, which the Agency requested be publicly notified under s95A(2)(b) of
the Resource Management Act 1991 (RMA). Accordingly these alterations were notified on 20 November 2013. A total of 18 submissions were received.

<table>
<thead>
<tr>
<th>Alteration</th>
<th>Relevant Council</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resolution Drive Interchange (Alteration U)</td>
<td>WDC</td>
</tr>
<tr>
<td>Puketaha Road Arrangement (Alteration V)</td>
<td>WDC</td>
</tr>
<tr>
<td>Greenhill Interchange (Alteration W)</td>
<td>WDC &amp; HCC</td>
</tr>
<tr>
<td>Southern Interchange and Cambridge Road Widening (Alteration Z)</td>
<td>WDC</td>
</tr>
</tbody>
</table>

*Table 2-2 – Publicly Notified Alterations*

The second bundle included twelve minor alterations providing for local widening at narrow points, and to make provision for stormwater treatment facilities. These alterations were lodged in a separate bundle under the expectation that they were likely to be non-notified due to their minor nature.

The notified alterations were heard by independent Commissioners at a joint hearing in April/May 2014. A recommendation from the Commissioners that the NORs be granted subject to a set of conditions was released on 30 June 2014. On 8 July 2014, the Transport Agency accepted the recommendation with only minor modifications. Two appeals have been made by submitters, one in relation to Alteration U, and the other in relation to Alteration Z. It is anticipated that recommendations on the non-notified alterations will be provided in early September 2014.

### 2.3 Resource Consents

On the same date (30 September 2013), the Agency lodged applications for the necessary resource consents with Waikato Regional Council (WRC). As with the large alterations, the Agency requested that these applications be publicly notified under s95A(2)(b) of the RMA. Accordingly these resource consents were publicly notified on 20 November 2013.

The WRC consents were heard at the same time as the notified alterations. The Commissioners’ decision to grant the resource consents was notified on 1 July 2014. No appeals were made in relation to these consents.

The following resource consents were granted by the WRC:

<table>
<thead>
<tr>
<th>Land use AUTH130361.01</th>
<th>Undertake earthworks including: soil disturbance, roading, tracking, and vegetation clearance both within and outside of high risk erosion areas; cleanfill and overburden disposal; and, any associated discharges of contaminants to water or air association with the Hamilton Section of the Waikato Expressway</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water permit AUTH130361.02</td>
<td>To dam and divert surface water in the Mangaonua and Mangaharakeke/ Mangaone gullies as a consequence of road construction in association with the Hamilton Section of the Waikato Expressway</td>
</tr>
<tr>
<td>Land use AUTH130361.03</td>
<td>Construction, operation, maintenance and removal of temporary bridges over the Mangaonua and Mangaone streams including any associated discharges of contaminants to water or air in association with the Hamilton Section of the Waikato Expressway</td>
</tr>
</tbody>
</table>
### Table 2-3 – WRC Consents Granted

<table>
<thead>
<tr>
<th>Land use</th>
<th>AUTH130361.04</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Construction, operation and maintenance of the Mangaonua and Mangaone Stream bridges including any associated discharges of contaminants to water or air in association with the Hamilton Section of the Waikato Expressway.</td>
</tr>
<tr>
<td>Water Permit</td>
<td>AUTH130361.05</td>
</tr>
<tr>
<td></td>
<td>To drill below the water table to install bridge piles in association with the Hamilton Section of the Waikato Expressway.</td>
</tr>
<tr>
<td>Water permit</td>
<td>AUTH130361.06</td>
</tr>
<tr>
<td></td>
<td>To take and divert groundwater and discharge groundwater to water in association with the Hamilton Section of the Waikato Expressway.</td>
</tr>
<tr>
<td>Discharge permit</td>
<td>AUTH130361.07</td>
</tr>
<tr>
<td></td>
<td>To divert and discharge stormwater into water, and/or into or onto land, including the installation, operation and maintenance of discharge structures in association with the Hamilton Section of the Waikato Expressway.</td>
</tr>
<tr>
<td>Land use</td>
<td>AUTH130361.08</td>
</tr>
<tr>
<td></td>
<td>Construction, operation and maintenance of culverts including any associated discharges of contaminants to water or air in association with the Hamilton Section of the Waikato Expressway.</td>
</tr>
<tr>
<td>Water Permit</td>
<td>AUTH130361.09</td>
</tr>
<tr>
<td></td>
<td>To dam and divert surface water in association with culvert construction, operation and maintenance</td>
</tr>
</tbody>
</table>

#### 2.4 Summary of Alterations and Resource Consents

The alterations to the existing designations and the WRC resource consents granted as outlined above do not specifically address the Ruakura Interchange proposal with the exception of the following resource consents:

- Earthworks associated with the interchange and ramps (AUTH130361.01);
- Drilling to install bridge piles (AUTH130361.05); and
- Diversion and discharge of stormwater associated with the interchange ramps (AUTH130361.07).

Accordingly, there is a requirement to seek a separate alteration for the Ruakura Interchange and connecting roads, and resource consents associated with stormwater discharges not covered by the existing WRC consents.
3 Planning Context

3.1 Local Authority Boundary Changes

Since the original designation was confirmed, boundary changes have occurred between HCC and WDC as set out in the Strategic Agreement on Future Urban Boundaries, dated March 2005. The agreement identified the principles, direction and process for transfer of land.

In relation to the Ruakura Interchange NOR, the jurisdictional boundary generally follows the centreline of the Expressway from Greenhill Road through to the Mangaonua Gully. The NOR is therefore being made to both the WDC and HCC.

![Figure 3-1: Local Authority Boundary]

3.2 Ruakura Structure Plan

Boundary changes between HCC and WDC have meant that a significant area of land at Ruakura is now within the jurisdiction of HCC. The development of this land is identified in a number of high level documents including: the Hamilton Urban Growth Strategy, the Access Hamilton Transport Strategy and the Waikato Proposed Regional Policy Statement.

To enable the progressive development of this area, the Ruakura Structure Plan (RSP) was developed and notified as part of the Hamilton City Proposed District Plan (PDP) in December 2012. The RSP (as notified) includes an inland port, freight and logistics hub and other industrial land. The inland port as proposed in the RSP has an intermodal facility so that freight can be transferred to and from road and rail. The RSP also provides for research and innovation activities, and residential areas for an eventual population of approximately 1,800 households, including the development of a neighbourhood centre.
Submissions and further submissions have been received on the RSP, however hearings and a decision have been deferred, pending the outcome the Ruakura Development Private Plan Change (PPC) (refer 3.3 below).

3.3 Ruakura Development Private Plan Change

Tainui Group Holdings Limited (TGH) is the predominant landowner affected by the RSP. It was identified that rules in the Hamilton District Plan: Waikato Section (as transferred over from the WDC’s District Plan) prohibit any application being made for urban development within this area. Given that the WDC rules are currently operative, they continue to apply until the PDP (including the RSP) is made operative. Given the potential for lengthy delays, TGH have sought a PPC for what is known as the Ruakura Development, through the Environmental Protection Authority (EPA). The PPC affects some, but not all, of the land subject to the RSP.

The PPC does not re-zone any land, rather it proposes to adopt mechanisms providing an overlying ‘schedule’. This allows a range of activities to be undertaken in identified areas, as well as existing rural activities.

The key aspects of the PPC are as follows:

- A new ‘Schedule 25H Ruakura’ inserted into Chapter 25: Rural of the PDP, which provides a Ruakura Logistics Area (incorporating the Inland Port), Ruakura Industrial Park Area, Knowledge Area, Residential Areas and Open Space Areas along with indicative roads (refer to Figure 3-2 below).
- Amendments to the Prohibited Activity rules to enable the planning and development of the land covered by Schedule 25H, including the future roading network.

On 31 July 2013, a ministerial direction was released, referring the PPC request to a Board of Inquiry (BOI) which was held over a number of weeks during May/June 2014. On 5 August 2014, the BOI issued its draft decision approving the PPC, subject to a number of amendments to the proposed objectives, policies and rules, as they would apply to the Ruakura Development. Comments on the draft decision close during the week commencing 1 September 2014, and a final decision is due on 11 September 2014.

The PPC will enable development to occur in the interim, but it is intended that the PPC will also be incorporated into the framework of the PDP, once the PPC has been confirmed. Accordingly, the RSP contained within the notified PDP is likely to be superseded by the Board’s decision on the PPC.
Figure 3-2: Ruakura Schedule Area as approved by the BOI in its draft decision
3.4 Ruakura Interchange Notice of Requirement

The functioning of the Ruakura Development as provided for by the PPC requires the establishment of a full diamond interchange on to the Hamilton Section of the Waikato Expressway. Accordingly, in February 2014 the Agency lodged a NOR to alter the designations for the Hamilton Section to provide for the required interchange, and also to provide appropriate arterial roads linking land to the east and west of the Expressway to the interchange. The NOR was lodged to provide surety for the BOI process, and demonstrate that the Agency was committed to establishing the Interchange. At the Agency’s request, that NOR application was immediately placed on hold pending the outcome of the BOI process for the PPC. Now that an interim decision has been made approving the PPC, the Agency has amended the NOR as lodged to be cognisant of the BOI decision, and seeks to have it publicly notified by the HCC and WDC.
4 Ruakura Interchange

The Agency is seeking to alter the existing designations for the Waikato Expressway (Hamilton Section) in order to accommodate an interchange at Ruakura. This includes the relocation of Ruakura Road, closing the existing Ruakura Road where it passes under the existing designation, removing the two north facing ramps at the SH26/Morrinsville Road interchange, and providing for stormwater drainage along Davison Road. The NOR will enable a direct link between the Inland Port/Logistics and Industrial Areas of the Ruakura Development to the Hamilton Section of the Waikato Expressway, rather than relying on local roads to accommodate heavy vehicle movements.

4.1 Form 18

Section 181 Resource Management Act 1991

To: Waikato District Council
   Private Bag 544
   Ngaruawahia

And Hamilton City Council
   Private Bag 3010
   Hamilton

1 The NZ Transport Agency (the Agency), a requiring authority pursuant to section 167 of the Resource Management Act 1991, and having financial responsibility for this proposed public work, gives notice to both Waikato District and Hamilton City Councils of a requirement for alterations to the following designations:

J17 (Hamilton Bypass) of the Waikato District Plan; and
90a (Hamilton Bypass) of the Hamilton City Proposed District Plan.

Designation Purpose:
Alteration to J17: Road Purposes – Road for State Highway & Access to State Highway

Alteration to 90a: To manage the State highway system, including planning, funding, design, supervision, construction, and maintenance and operations, and improvements in accordance with the Land Transport Act 2003 and the Government Roading Powers Act 1989

Designation Lapse Period:
Waikato District Plan – 2015
Hamilton City Proposed District Plan – 2022

2 The site to which the requirement applies is as follows:

Waikato District
Lot 3 DPS14267 (SA11D/1380),

For the avoidance of doubt, the designation of Davison Road is to provide for stormwater drainage only, and there is no requirement to designate this road for State highway purposes.
Lot 8 DPS66853 (SA53C/665); and
Road Reserve – Ruakura Road, Vaile Road and Davison Road

Hamilton City
Lot 1 DPS77458 (SA61C/243),
Lot 8 DPS66853 (SA53C/665); and
Road Reserve – Ruakura Road and Silverdale Road

Please refer to Appendix B for copies of the Certificates of Title.

The nature of the alteration work is as follows:

» Widening of the existing Expressway designation to accommodate the Ruakura Interchange ramps, connecting roundabouts, and stormwater wetland;

» Closure of the existing Ruakura Road either side of the Expressway and consequently shortening of the proposed bridge over the East Coast Main Trunk (ECMT) rail line;

» Retention of the existing Ruakura Road either side of the closure at the Expressway in order to provide continued property access to residents on Ruakura Road, including access to Percival and Ryburn Roads as currently provided;

» Relocation of Ruakura Road between the Ruakura Road/Silverdale Road intersection and the existing Ruakura Road near the Vaile Road intersection to connect with the proposed Ruakura Interchange, including:
  • Existing Ruakura Road/Silverdale Road intersection closed, with Silverdale Road terminating in a cul-de-sac (road retained for access) and creation of a new signalised relocated Ruakura Road/Silverdale Road intersection that will also provide a key access point to the Ruakura Development Logistics Area;
  • New relocated Ruakura Road/Existing Ruakura Road (west) priority controlled tee intersection;
  • A signalised intersection along the relocated Ruakura Road to provide a second key access point to the Ruakura Development Logistics Area;
  • Provision of a tee intersection where the relocated Ruakura Road meets the existing Ruakura Road (east);
  • Upgrading the existing Ruakura Road, largely within its existing boundaries, between the new intersection with the relocated Ruakura Road (east) and the Ruakura Road/SH26 intersection (this will include shape correction of the roadway, carriageway widening, provision of a footpath and drainage improvements;
  • Extension of the designation to cover the existing Ruakura Road (from the intersection with the relocated Ruakura Road up to SH 26) so upgrading works can be undertaken;
  • Provision for the relocated Ruakura Road to pass either over or under the Expressway; and
• Provision for stormwater attenuation and disposal from the relocated Ruakura Road and Ruakura Interchange.

Please refer to Appendix C for plans in support of the NOR.

4 The nature of the proposed restrictions that would apply are:

In the context of the assessment of environmental effects that follows, it is considered that the existing conditions applying to the altered designation for the Hamilton Section of the Waikato Expressway (NOR1A and NOR1B), will adequately mitigate any potential environmental effects associated with the alteration. Further conditions are also proposed that are unique to this alteration.

A full set of proposed conditions based on the NOR1A and NOR1B conditions is provided in Appendix A of this report.

5 The effects that the public work will have on the environment and the ways in which any adverse effects will be mitigated are:

Please refer to the effects assessment in section 5.0 below.

6 Alternative sites have been considered to the following extent:

Please refer to the alternatives assessment in section 4.2 below.

7 The public work and designation are reasonably necessary for achieving the objectives of the requiring authority because:

The proposed alteration is the outcome of a Network Connections investigation which concluded that interchanges at Greenhill and Ruakura best served the area if the Ruakura Structure Plan and in particular the Inland Port were to proceed. The draft BOI decision has given approval to the Ruakura Development PPC, which will be incorporated into the RSP. Accordingly, the alteration will achieve the Agency's project specific objectives: a), d) and e), as listed under section 1.6 of this report.

The use of a designation is necessary as it is consistent with the approach across the wider Expressway, including the Hamilton Section.

8 The following resource consents are required from the Waikato Regional Council:

The Transport Agency is also seeking additional resource consents from the WRC to construct, operate and maintain the connecting roads (being the relocated and existing Ruakura Road). The interchange ramps and associated earthworks are covered by the existing consents granted 1 July 2014. Water and discharge permit applications will be lodged with the WRC shortly.

9 The following consultation has been undertaken with the affected landowners:

Consultation undertaken by the Agency with respect to this NOR is detailed in Section 6 of this report.

10 The following information is required to be included in this notice by the district plan, regional plan, or any regulations made under the Resource Management Act 1991:

Notice of requirement assessment of effects;

Notice of requirement alteration plans.
4.2 Consideration of Alternatives

In early 2013, transport modelling work was undertaken to inform a network connections study to ascertain the most favourable network between Greenhill Road and SH26, with a view to integrating the Waikato Expressway connectivity with the proposed RSP and associated generation of a large number of heavy commercial vehicle movements.

The study identified that interchanges at Greenhill and Ruakura best served the area if the RSP and in particular the Inland Port were to proceed. The draft BOI decision has given approval to the Ruakura Development PPC, which the HCC has advised will be incorporated into the RSP.

The outcomes of the assessment were discussed with HCC, WDC and TGH (and generally accepted as appropriate) prior to being subject to the Agency’s internal approval process.

The full assessment of options between Greenhill Road and SH26 is contained in the report ‘Network Connections Summary Report – March 2013 Update’, prepared by Opus and attached as Appendix D to this report.

In addition to the Network Connections assessment, consideration has been given to network connectivity to the east of the Ruakura interchange. In particular, how to connect the re-aligned Ruakura Road back to the existing network. Two alternatives were considered:

- Option 1: (the proposed option) connection into the existing Ruakura Road; or
- Option 2: connection to SH26 via a new road, running parallel to the Expressway.

The process has included a multi criteria approach, giving consideration to both economic efficiency, strategic fit, environmental effects, safety and accessibility. Property impacts, geometric design requirements and road safety matters were of particular interest in this case.

Option 2 was not chosen because:

- The length of an alternative alignment (Option 2) is 3 km, and would require the taking of about 7.5 ha of land.
- The alternative alignment cannot run directly alongside the expressway because:
  - The design speed of the curves on the new road needs to be 80km/h, that is, the curves need to have radii in excess of 230 m, and
  - The intersection with the relocated Ruakura Rd that crosses the interchange needs to be separated from the eastern ramp terminal roundabout by about 300 m to meet sight distance requirements.
- The alternative alignment results in a much greater property impact than that created by Option 1.
- The intersection with SH26 (Morrinsville Rd) needs to be separated from the expressway bridge to meet sight distance requirements and to avoid widening the bridge. This significantly increase the impact on properties fronting SH26 in the vicinity compared with Option 1. Option 1 requires no widening of the expressway bridge.
In addition, Option 1 provides the opportunity to make use of the existing Ruakura Road, which is an existing resource, and a road of a suitable status on the road hierarchy for connection, being classified as an Arterial Road in the Waikato District Plan.
5 Assessment of Environmental Effects

This section of the report provides an assessment of the actual and potential effects on the environment as a result of giving effect to this alteration. The effects assessment is based on the various specialist reports used to inform this assessment. A full copy of all specialist assessments is provided in Volume 2 of this report.

5.1 Baseline for the Environmental Effects Assessment

The RMA requires an assessment of the effects on the environment of allowing the requirement (s171(1)). Consideration therefore needs to be given to what defines the existing environment, as this will form the baseline that the effects of the proposal will be assessed against.

5.1.1 Waikato Expressway

The Hamilton Section of the Waikato Expressway designations pass to the east of Hamilton City in a generally north-south direction and enable the construction of a four-lane Expressway and associated on/off ramps to connect with the local road network (excluding the Ruakura Interchange). The development of the Expressway is also supported by a number of consents granted by the WRC as detailed in section 2.3 of this report. For the purpose of assessing this NOR, the Expressway as currently designated is considered part of the existing environment.

5.1.2 West of the Expressway

The land immediately to the west of the Expressway is currently zoned Rural in the Hamilton District Plan: Waikato Section. This area adjoining the Expressway is in pasture, with scattered dwellings and farm buildings. The Waikato University is located to the west of Silverdale Road, and is surrounded by residential development. There is also residential development to the east of Silverdale Road, which juts out towards the Expressway and is bounded by a gully (Nevada Road). North of Ruakura Road is an area of land zoned Country Living, which contains a cluster of approximately 30 rural residential dwellings.

The environment immediately to the west of the Expressway is subject to a PPC, which a BOI has approved in its draft decision. Consideration of this NOR by the territorial authority should be in the context of the future development enabled by the PPC. The need for the Ruakura Interchange is a direct result of development occurring in this area in accordance with the PPC. Without the PPC proceeding, the Agency would revert back to the approved north facing ramps at SH26, unless an alternative justification was provided for establishing an interchange at Ruakura.

It is reasonable to assume that the existing environment for the purpose of assessing the effects of this NOR will consist of the land use activities indicated in Figure 3-2 of this report, and supported by the BOI decision2. The BOI has already heard evidence in relation to the associated effects of these land use activities and their ruling on the PPC has taken such effects into consideration.

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2 At the time of lodging this NOR only a draft decision on the Ruakura Development PPC was available, with the final decision scheduled to be issued on 11 September 2014. It has been assumed that any changes to be made between the draft decision and final decision will have no material bearing on the existing environment as applied to this NOR. This will be confirmed once the final decision on the PPC is made, and if necessary the NOR will be amended to reflect any changes.
As stated in section 3.3 of this report, the PPC will enable development to occur in Ruakura ahead of the RSP being approved, and it is intended that the PPC will be incorporated into the framework of the PDP, superseding aspects of the RSP pertaining to this area. It is for this reason that for the purposes of this effects assessment the PPC has been adopted as the existing environment, rather than the RSP.

The PPC adds Schedule 25H Ruakura to Chapter 5 of the PDP and includes the following features:

- Ruakura Logistics Area (including Inland Port)
- Industrial Park Areas
- Knowledge Area
- Ruakura Retail Area
- Medium Density Residential Areas
- General Residential Areas
- Open Space Areas

Schedule 25H includes objectives, policies, rules and other methods that will provide for the Ruakura Development and manage any effects associated with activities locating in this area. The Ruakura Logistics Area, Industrial Park Area, and Open Space Area are all located in close proximity to the Ruakura Interchange and are described below.

**Ruakura Logistics Area**

A key aspect of the Ruakura Logistics Area is its proximity to the Waikato Expressway, ECMT and Wairere Drive, making its location well suited to the distribution of freight by road and rail. The Ruakura Logistics Area is divided into two sub-areas being the Inland Port (Sub-Area A) and Logistics (Sub-Area B). The purpose of Sub-Area B is to provide a distribution precinct, which naturally sits adjacent to the Inland Port.

Initially, freight will only be transported by road to the Inland Port. In time, rail freight will also be handled, but this will require the construction of railway sidings. Construction of the sidings will require the stopping of the existing Ruakura Road to the west of the Expressway. This can only occur once the Ruakura Interchange and link roads east and west of the Expressway are constructed. The road closure will also be subject to a separate process under the Local Government Act 1974.

**Industrial Park Area**

One of the Industrial Park Areas will be located in the southern end of the Ruakura Development, opposite the Logistics Area. It is anticipated that the Inland Port and Logistics Area will provide incentives for industry and services to establish in this area. The proximity of the Expressway, AgResearch, University of Waikato and Innovation Park will also attract industrial business to the area. The rule regime will encourage industry that is complementary to other activities in the area, and discourage noxious and offensive industries deemed to be incompatible with those same activities.

The Industrial Park Area in this location also envisages the inclusion of a transportation service centre, given its close proximity to the Ruakura Interchange and Expressway.
Open Space Areas

The primary function of the Open Space Areas is to provide stormwater and ecological management areas, as well as corridors for existing electricity transmission lines. The Open Space Areas will also provide for pedestrian/cycle networks, amenity for new developments, landscaped buffers for existing residential areas, the University and AgResearch from the Logistics and Industrial areas.

Open Space Areas will also be located adjacent to parts of the relocated Ruakura Road that form part of the NOR.

Staging of Development

A first stage planning process has been established through the PPC requiring that a Land Development Plan be approved for large blocks of land before individual activities are able to be developed within those blocks. The purpose of the Land Development Plans is to ensure that appropriate consideration is given to Three Waters infrastructure, transport effects, ecological effects and provision of open space at a macro level.

The relocated Ruakura Road that forms part of the NOR passes through three Land Development Areas listed as areas A, C and F on Figure 25H(3) of the Plan Change.

The PPC includes a plan indicating the year at which certain aspects of the Ruakura Development will be established. Whilst that plan is only intended as a guide, it demonstrates that development will take place over a number of years. Based on the dates indicated, the Ruakura Interchange could be constructed ahead of some aspects of the Logistics and Industrial areas. Accordingly, the effects assessment for the Ruakura Interchange also needs to consider any temporary effects created by the staged development, rather than assuming only a fully completed Ruakura Development forms the existing environment.

5.1.3 East of the Expressway

The land to the east of the Expressway is zoned Rural in the Waikato District Plan. The portion of land between the ECMT line and Davison Road is characterised by large open paddocks and scattered buildings, including some dwellings. From Davison Road south, there is significantly more rural-residential development. The Dairy NZ/LIC site is located on the corner of Ruakura Road and SH26, comprising of office space and facilities associated with the rural services they provide, and staff up to 350 people. Ruakura Road itself is identified as an Arterial Road in the Waikato District Plan (WDP). The function of Arterial Roads is described in the WDP as roads that:

- Form a strategic network of regional importance
- Provide for the collection and distribution of goods significant to the regional economy
- Rural roads that typically provide for more than 2,500 vehicle movements per day
- Include rest areas; and
- The through traffic function predominates.

3 Indicative Development Timeframes Plan (25 September 2013) – Appendix 6 to the Proposed Ruakura Development Plan Change Draft Decision and Report, 5 August 2014
5.1.4 Existing Environment Summary

The following sections of this report includes a summary of the potential environmental effects associated with the Ruakura Interchange and any subsequent mitigation that is proposed. Specialist assessments covering the following topics have been prepared, and a full copy of each of those assessments is included in Volume 2 of this report:

- Traffic Effects
- Landscape, Visual Amenity and Urban Design Effects
- Archaeological Effects
- Ecological Effects
- Vibration Effects
- Air Quality Effects
- Contamination Effects
- Stormwater Effects
- Social Effects
- Noise Effects

The effects assessment is based on an existing environment as described above in sections 5.1.1 – 5.1.3.

5.2 Traffic Effects

The potential traffic effects of the Ruakura Interchange and relocated Ruakura Road have been assessed by a Transportation Engineer familiar with the Expressway project and site. The potential effects and proposed mitigation are summarised below.

Baseline for Traffic Effects Assessment

Careful consideration has been given to the traffic assessment baseline. A detailed description of the baseline that has been adopted is set out in section 2 of the traffic assessment report. The traffic assessment takes into consideration the Ruakura Development when determining the 2021 and 2041 existing traffic baseline. The baseline for the traffic assessment is as follows:

- Landuse will reflect that shown on Figure 3-2 above with the associated traffic generation as prescribed in the Ruakura Development PPC and presented in evidence during the BOI.

- The baseline road network will reflect the road hierarchy as outlined and examined during the BOI. Although this indicates a realigned Ruakura Road between Silverdale Road and the Expressway, the existing Ruakura Road can remain open when the Inland Port and Logistics Area is developed under the Stage 1 rules. Hence, in the traffic baseline the Inland Port and Logistics Area connect to the wider network (Holland Road and SH26) via the western section of Relocated Ruakura Road and the existing Ruakura Road.

- Intersection upgrades at Knighton and Silverdale roads to traffic signals. These upgrades were considered in detail during the BOI, and both lie within the PPC area on which the BOI has made its draft decision.
Assessment

The traffic assessment includes consideration of traffic flows on the network, intersections, existing property access, alternative modes of travel, and construction traffic. The intersections assessed are Ruakura Interchange on/off ramp terminals, existing Ruakura Road/SH26, relocated Ruakura Road/existing Ruakura Road (east), relocated Ruakura Road/Silverdale Road/Port Access, relocated Ruakura Road/existing Ruakura Road (west), existing Ruakura Road/Vaile Road/Davison Road, and relocated Ruakura Road/Port Access East. Property access is considered on Ruakura Road and SH26, and on Percival Road and Ryburn Road. The key conclusions of the traffic assessment are set out below.

The proposal encourages traffic to use the expressway, which reduces traffic on local roads such as Wairere Drive, Cambridge Road and the future Spine Road which travels through a residential area. It also reduces traffic past the Silverdale School and removes about 300 daily trucks (yr 2041) from Silverdale Road.

All NOR intersections are expected to operate at least as well as the baseline with little difference in traffic performance. They also meet the Project and Ruakura Development Level of Service criteria at opening through to year 2041 during all peak periods. Overall safety of the existing intersections on relocated Ruakura Road and Ruakura Road is expected to be no worse with the NOR than will occur under the baseline. Any new crashes on Relocated Ruakura Road as a result of the two roundabouts at the interchange ramp terminals will most likely be offset by the removal of potential crashes on SH26, as a result of not constructing the two Tee Intersections at the SH26 ramp terminals. There is also a significant number of vehicles that are transferring from the local road network to the expressway which should provide a safety benefit for the remaining traffic using the local road network.

The extra traffic on Ruakura Road will be accommodated on a widened cross section that provides two 3.5m lanes with 1.5m shoulder widths. A right turn bay for Vaile/Davison Road intersection will provide a safer environment for turning vehicles than is offered by the existing intersection.

Effects on alternative modes of transport are expected to be positive due to the inclusion of shared off road facilities along Relocated Ruakura Road, and a concrete pathway between Vaile Road and SH26, neither of which exist at present. There are no expected effects on public transport.

No more than a minor effect on property access for Ruakura Road residents (south of Vaile Road) is expected, despite the increased traffic flows. Residents turning into, or out of, their properties should not be adversely affected by the increased traffic as it represents on average an extra vehicle every 30 seconds during the day. The inclusion of a central painted median for right turn traffic into LIC/Dairy NZ site will ensure a much safer environment than exists at present.

Network effects for travel to the south and east for Percival and Ryburn Road residents are not expected to be more than minor when the increased trip time (between 1 minute to 2.5 minutes) is compared with the overall trip time, and given that the number of these trips is expected to be less than 20% of their total daily trips (on average).

Construction traffic effects relate to the additional earthworks required to construct the proposed works. A Construction Management Plan (CMP) developed by the contractor as a condition to this NOR will set-out the mitigation measures proposed to deal with any adverse traffic or safety effects.
arising from construction traffic, based on the contractor’s intended operation. Waikato District Council and Hamilton City Council will certify the CMP to ensure mitigation is adequately provided.

The traffic assessment also considers the two options (Expressway under or over Ruakura Road), and concludes that from an expressway operation and safety perspective, Ruakura Road over the Waikato Expressway is the preferred layout arrangement as this reduces the speed differential between trucks merging from the northbound on-ramp and vehicles using the outer lane of the expressway.

Overall, the traffic assessment concludes that the NOR is considered to have no more than a minor traffic and safety effect. In addition, the NOR provides a positive overall contribution to the network efficiency by providing a direct connection between the Ruakura Development activities (particularly the Inland Port and Logistics Area) and the Waikato Expressway, thereby reducing heavy commercial vehicles on city roads such as Wairere Drive and Cambridge Road.

5.3 Landscape, Visual Amenity and Urban Design Effects

The potential landscape, visual effects and urban design effects of the NOR have been assessed by a Landscape Architect familiar with the Expressway project and site. The potential effects and proposed mitigation are summarised below.

Methodology

A number of site visits have been made over the past two years to evaluate the Waikato Expressway Hamilton Section proposal, including an assessment of the Ruakura Interchange landscape, and identification of visual receptors. In addition to this, preparation for the assessment has included the collection of baseline information through desktop studies and collating background planning information and existing studies.

The methodology for the assessment is modelled on the Transport Agency’s Draft Landscape and Visual Assessment Guidelines and the Transport Agency’s Urban Design Assessment Guidelines, which promote best practice for landscape and visual assessments.

The effect of the specific change to the environment in relation to the proposed Ruakura Interchange and connecting roads is quantified by predicting the magnitude of positive or negative change in relation to the character of the area. The rating is utilised to determine the need for and then the degree and extent of landscape mitigation measures. The assessment does not attempt to predict the visual effects of seasonal changes throughout the year but describes the ‘worst case’ position in terms of the character types or view of receptors.

Assessment

The assessment states that the landscape effects are related to the effects of the proposal on the physical landscape and include: landform (earthworks including cut and fill), landcover (loss of vegetation and existing structures) and the effects on landuse. The visual effects are related to the effects of the proposal on landscape amenity and include the ‘fit’ within the existing landscape character and patterns, the visual amenity in relation to the appearance of structures such as bridges and the visual effects from dwellings and private property. The urban design effects are related to

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5 Bridging the Gap: NZTA Urban Design Guidelines, October 2013.
the effects of the proposal on the efficient use and development natural and physical resources and the maintenance and enhancement of amenity values and the quality of the environment.

The assessment considers the separate components that make up the alteration to designation. A summary is provided as follows.

The realignment of Ruakura Road to connect with the proposed Ruakura Interchange and local roads will result in a low landscape and visual effect, due to the minimal earthworks and vegetation removal. Visibility of the traffic utilising the road is deemed to have a low effect as the road will be constructed close to existing grade and seen in the context of the Expressway. The realignment of Ruakura Road will integrate into the existing pattern and form of the area, improve connectivity (including pedestrian/cycling facilities) and allow for efficient land development opportunities of the adjacent land.

The integration of the Interchange into the existing Expressway form will provide direct access to the Expressway, while reducing heavy vehicles on local roads. The Interchange will result in no effect to landcover as the land use is currently pastoral, a low effect on land use with the loss of productive land, and a moderate effect on landform with the earthworks required to construct the Interchange. In terms of visual effects to the east, the Interchange will be discernable but effects will be limited to properties and local roads in the immediate vicinity and seen in the context of the existing Expressway. Before the construction of the PPC Development Area, there will be an interim low visual effect, as the Interchange and realigned Ruakura Road will be able to be seen, dependant on the proximity of the viewer. Once construction of the Ruakura Development is complete, the built form created will dominate and screen the visual effect.

The Interchange Option (Option 1: Expressway overpasses Realigned Ruakura Road) is close to existing grade, promotes accessibility and future land development, provides the opportunity to create a ‘gateway’ entrance, and makes provision for extending the planting theme and promotes ‘at grade’ cycling/pedestrian facilities to connect to the area on the eastern side of the Interchange. Option 2 (Local Road overpasses Expressway) is functional, however the arrangement of the ramps, roundabouts and realigned Ruakura Road is not considered to be the most optimal arrangement in terms of development potential of adjacent land, and accessibility for pedestrians and cyclists, as the overpass requires an ‘up and over’ connection across the Expressway.

The closure and retention of the existing Ruakura Road will continue to provide access and connectivity between residential dwellings and local roads, although travel times will be slightly affected for local residents. The closure of the existing Ruakura Road adjacent to the Expressway will have no significant landscape, visual or urban design effects, as the realigned Ruakura Road will ensure connectivity with Hamilton City, the Expressway and SH26 will be maintained.

The removal of the northern on/off ramps where SH26 intersects with the Expressway will result in minimal changes to the landscape with respect to landform, landuse and landcover. Likewise, the effect on urban design will also be minimal with access and connectivity maintained through local roads. There will be some visual benefit for Expressway users with continuous planting along cut slopes providing a better aesthetic. Overall, the broader landscape character, local residents and users of SH26 will not discern any changes to the visual amenity.
Mitigation

Landscape mitigation to the east will utilise occasional groups of trees and hedgerows along the alignment, which will reflect the sparsely vegetated character of the open rural environment. Around the Interchange, planting will be used to soften on/off ramps and embankments and complement the ‘gateway’ environment of the future Ruakura Development. In support of this, the overpass bridge will be slender and elegant, relative to span and will have a moderate to high aesthetic quality in form and finish. Accordingly, it will integrate with the ‘family’ of bridges that occur along the Expressway. To the west, landscape mitigation will respond to the character of the large scale Ruakura Development area. As such, mitigation measures will need to be developed at a later stage in conjunction with a comprehensive Ruakura Development Master Plan for consistency with the overall objectives for the development.

Proposed landscape mitigation conditions are included in Appendix A of Volume 1.

Summary

When considering the combination of all of the above effects; the proposed alteration to designation for the Hamilton Section including an interchange at Ruakura, and associated connecting roads (being the realigned Ruakura Road), can be achieved without any significant landscape, visual or urban design effects. The proposed Ruakura Interchange and connecting roads will be a new element in the landscape, yet will be seen in the context of the Expressway. There will be interim effects before the Ruakura Development is established, however in the long term, these will be absorbed by the built form of that development. Overall, the inclusion of the Interchange and associated connecting roads sit well within the landscape and any landscape, visual or urban design effects can be adequately mitigated.

5.4 Archaeological Effects

The potential archaeological effects associated with this proposal have been assessed by an Archaeologist familiar with the site and the wider Expressway project. The potential effects and proposed mitigation are summarised below, and a full assessment of archaeological effects is included as part of this NOR (refer to Volume 2, Appendix 2C).

The archaeological assessment for the Ruakura Interchange is based on a desktop and field assessment, and includes the following components:

- historic map search;
- search of the New Zealand Archaeological Association (NZAA) database of recorded archaeological sites; and
- field visits.

Historical Setting

It was identified that the study area is within land confiscated following the Waikato Wars in the 1860s. The land was partitioned into 50 acre farms and awarded to British soldiers to encourage European settlement in the Waikato. The allotments were difficult for soldiers to farm as the land generally required draining and only poor access infrastructure (roads and bridges etc.) was provided
by the government. Soldiers often did not have the skills or the finances to make their allotments payable and either abandoned, or on-sold their land.

With better technology and greater demand for produce, the late 19th to early 20th century saw areas such as Ruakura become favourable for farming. This was compounded during WWI and WWII, and with the advent of freezing technology enabling meat to be transportable to Europe. The land east of the city was drained and intensive dairy farms were established.

The study area is not known to have been a focus for either domestic or horticultural activity prior to European settlement. The vast majority of recorded prehistoric archaeological sites and prehistoric gardening soils occur within 1km of the Waikato River and its tributaries. The study area is approximately 3km from the Waikato River and over 1.5 km from the main section of the Mangaonua Stream gully system.

Archaeological Evidence

Historic plans detailing the allotments have been viewed as part of the research for this assessment. The earliest plan viewed (SO 143) shows the property boundaries as they were initially planned in 1865. The relocation of Ruakura Road passes through original allotments 243-245. No structures or buildings are shown on this plan, and no features of pre-European interest are shown.

SO2752 (1883) illustrates property boundaries and shows a sod fence along the southern boundary of this property. The sod fence location was investigated during a site visit on 27 August 2014. Currently a hawthorn hedge is planted in this location demarcating the property boundary. It is possible that this sod fence has been previously destroyed or has eroded as they only feature present is a low earth rise under the hedge.

A later plan of the Ruakura Agricultural Station (1902) also illustrates the study area (SO 12249). This plan shows property boundaries and road reserves. No buildings (including dwellings or farm sheds) are illustrated on the plan.

Neither of the two historical plans indicate that features of historical or pre-European interest were present within the study area.

The NZAA online database (Archsite) was viewed to identify if archaeological sites have previously been recorded in, or close to the study area. The database clearly shows that the vast majority of archaeological sites in the Hamilton area are located within close proximity to the Waikato and Waipa Rivers, and their tributaries. There are no recorded archaeological sites close to the study area. The nearest site is S14/52. This is recorded as a pa and is approximately 700m south-east of the proposal. However, there appears to be differing professional views on whether a pa site ever existed in this location.

The Archaeologist undertook field visits on 29 January 2014 and 27 August 2014. The survey focus on both occasions was the portion of land proposed for the relocated Ruakura Road. This is currently an operating dairy farm and is divided up by modern fencing into paddocks connected by cattle-races. The fields have been drained and the topography is generally flat with minor undulations evident. No historical features were identified and no prehistoric features such as borrow pits were evident. On the basis of the site visit, the likelihood of there being archaeological sites present in the study area is low.
Summary

There remains the possibility that subsurface archaeological features, deposits, or sites are located in the study area concealed below topsoil. However, there is no evidence to suggest the study area holds archaeological or historic values, and as such, there are no known reasons to alter or modify the current proposal on archaeological grounds.

As there are no known archaeological values associated within the area of proposed Ruakura Interchange alteration, accidental discovery protocol conditions are considered appropriate and with their implementation any potential effects regarding archaeology will be no more than minor. Such accidental discovery conditions are included in the recommended conditions for this alteration. Furthermore, a general authority to disturb archaeological sites will need to be obtained from Heritage New Zealand for the entire Hamilton Section, including the link roads covered by this alteration. Such an authority can cover any further investigation of the sod fence if deemed to be necessary.

5.5 Ecological Effects

The potential ecological effects associated with this proposal have been assessed by Ecologists familiar with the site and the wider Expressway project. The potential effects and proposed mitigation are summarised below.

Methodology

The ecological effects assessment is based upon the following:

- Walkover vegetation survey;
- Incidental bird observations;
- Desktop assessment of relevant literature documenting the presence of native bats within the area;
- Desktop assessment of effects on herpetofauna;
- Desktop assessment of relevant literature documenting the presence of native fish species;
- Walkover survey was carried out to assess the habitat condition of the watercourses;
- Sampling of five sites for black mudfish
- Stormwater information provided by the stormwater engineers and contained within the stormwater assessment (Volume 2, Appendix 2H).

Description of the Existing Environment

Flora

The proposed alteration to designation impacts upon a highly modified environment, including a dairy farm, roadside drains and predominantly exotic ornamental vegetation. The riparian margins of the Ruakura Road drains are dominated by exotic grasses and common weed species, including ryegrass (*Lolium perenne*), blackberry (*Rubus fruticosus*), chickweed (*Stellaria media*) and clover (*Trifolium repens*). Exotic trees line parts of the drain network, particularly along the eastern section of Ruakura Rd.
The intensively farmed landscape within the alignment supports no natural ecosystems. There are no mature indigenous trees within the proposed alteration to designation and no indigenous plant communities.

**Terrestrial fauna**

Based on observations made during several site visits, the bird species present within the designation alteration area are common native and exotic species, typical of highly modified landscapes. It is unlikely that the habitats within the alteration provide significant habitat for threatened bird species.

The very open nature of the landscape means that most of the area within the alteration is unlikely to be used with any frequency by long-tailed bats (*Chalinolobus tuberculatus*). The only locations with the potential to hold roosting and/or feeding bats are the stands of mature trees around the Ruakura Road/Silverdale Road roundabout and the mature trees around the property at the proposed junction with Ruakura Road to the east of the Expressway. The results of various surveys suggest that it is unlikely that the trees around the Silverdale Road roundabout or property adjacent to Ruakura Road will be regularly used by roosting or feeding bats.

Farm debris, rank grass and wood pile habitat that is present is likely to favour native copper skink and exotic rainbow skink. Exotic green and golden bell frogs and southern bell frogs are likely to be present. These species are all commonly found throughout the Waikato landscape and are likely to be present within the Ruakura Interchange footprint where suitable habitat exists. It is unlikely that other skink species are present however this cannot be discounted.

**Aquatic Habitats and Fauna**

The location of watercourses which are directly affected by the NOR are identified within the ecological assessment report, and divided into four sections (A, B, C and D). The drains along Ruakura Road which are affected by the NOR are intermittent, meaning seasonally wet (Sections A and B), ephemeral, wet for a short period after rain (Section C) and permanent (Section D). It is unlikely that native fish species apart from eels and mudfish inhabit the drains.

The waterway that will receive future stormwater discharges from the proposed Ruakura Interchange area includes a tributary to the Mangaonua Stream (Figure 4-2). Following consideration of various surveys undertaken by others, the assessment concludes that the Mangaonua Stream tributary is currently in a poor ecological condition.

The results of the mudfish survey confirm that black mudfish remain present in the Ruakura Road drain within 100m of proposed works. The results suggest there is a permanent population, and that local conditions support both adult fish and spawning habitat.

**Assessment**

There is no significant indigenous vegetation within the proposed designation footprint and the ecological effects of the loss of this vegetation will be less than minor.

It is highly unlikely that the area of the designation alteration supports significant habitat for indigenous terrestrial fauna, and therefore the ecological effects will be minor.

The total length of drain to be converted to culvert as a result of the works is approximately 405m. Of this, 65m is significant habitat of indigenous fauna (Section B). Section D is a permanent...
watercourse, which has some prospect of providing regular habitat for native fish. Section A is highly degraded and large portions of the drain are disconnected and ephemeral, and no significant habitat of indigenous fauna is present.

Eels may use the drains within Sections B and D for migratory purposes. Given the flat gradient of the culverts to be installed, eel passage is unlikely to be impeded provided that culverts are correctly installed. However adverse effects may include potential mortality during the construction phase.

The adverse effects on black mudfish include a loss of habitat in Section B due to the construction of a 65m long culvert, and potential mortality during the construction phase. Black mudfish populations within the Waikato are rare, particularly at the south end of Hamilton City. In this context the effects of culverting on the population remaining in this section of drain are more than minor and require mitigation.

Consideration has been given to the effects of stormwater discharges on ecological values, where it was concluded that potential adverse construction, contaminant, pulsed discharge, groundwater interception and stream bank erosion effects are expected to be no more than minor.

Mitigation

The following measures are recommended to minimise effects on fish and stream habitat during construction.

- Fish recovery and relocation during the installation of culverts, and the re-alignment of the drain within Section A.
- Careful management of the culvert construction and drain re-alignment construction process to ensure that sediment discharge to the streams is minimised.
- The culverts and any associated erosion control structures should be constructed in such a way that does not impede the passage of fish either upstream or downstream.

These three matters are addressed by the existing resource consent conditions for the Hamilton Section, and are expected to form part of the conditions associated with the resource consents required from the WRC for the connecting roads.

In addition, a Mudfish Management Plan (MMP) should be developed for this project. The MMP should include procedures for the capture and relocation of mudfish associated with temporary and permanent drain diversions if required during construction.

Approximately 206m² of black mudfish and longfin eel habitat will be lost through installation of culverts. Appropriate offset mitigation is required to mitigate for this at 2 times the stream channel area lost and this will total approximately 412m². The ecological assessment report recommends riparian planting of a 300m-long, 1m-wide strip of riparian land within road reserve administered by the WDC on the farm side of the drain (opposite the road), with perhaps a 0.5m-wide strip potentially available along the road side (for planting of native sedges or rushes). This will equate to approximately 450m² of riparian enhancement.

The assessment concludes that the mitigation proposed is an appropriate response to the potential effects on black mudfish and longfin eel habitat. Subject to the mitigation outlined, the effects of the alteration on ecology are expected to be no more than minor.
5.6 Vibration Effects

The potential vibration effects associated with this proposal have been assessed by a Vibration Engineering Consultant. The potential effects and proposed mitigation are summarised below. The full assessment report is provided in Volume 2, Appendix 2E.

Methodology

The report presents the findings of a desk study undertaken to examine vibration effects arising from the construction and operation of the Ruakura Interchange and associated connecting roads.

The desk study combined previously measured vibration source levels during road construction activity and traffic operating on state highways and local roads with soil attenuation coefficients derived from scala penetrometer readings made along the route of the Hamilton Section of the Waikato Expressway between Percival Road and Morrinsville Road (SH26). These two roads are on either side of the Ruakura Interchange.

The expected vibration levels were calculated in terms of ground vibration velocities and compared with guideline values specified in current international standards and also Appendix I of the Waikato District Council’s (WDC) Operative District Plan and Chapter 25 of the Hamilton City Council’s (HCC) Proposed District Plan.

Vibration has been assessed in terms of both human comfort, and damage to buildings. To identify where construction and operation of the Project may create significant adverse impact, criteria has been applied to the output of modelling used to provide estimates of ground-borne vibrations. These criteria have been derived from BS 5228.2, 2009 and DIN 4150-3 (1999). The screening criteria pertaining to human perception have deliberately been made more stringent than the guideline values specified in the Waikato District Council’s Operative District Plan because they are being applied to modelled estimates of ground vibrations and not measured ground vibrations.

Separation distances required for (1) building occupants to perceive vibrations, (2) building occupants to complain about the vibration levels and (3) minor building damage to occur were calculated for various sections along the route. The results are summarised in Table 4-18 below.

<table>
<thead>
<tr>
<th>Section along Waikato Expressway travelling north to south</th>
<th>Separation Distance from Vibration Source (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Operational</td>
</tr>
<tr>
<td></td>
<td>Perception</td>
</tr>
<tr>
<td>Percival Rd to SH26</td>
<td>22.5</td>
</tr>
</tbody>
</table>

Table 4-18: Critical Separation Distances

Table 4-18 shows that that vibrations from construction have the potential to be more problematic than vibrations from traffic.

Assessment

Occupied residences that are closest to the proposed Ruakura Interchange travelling from west to east are as follows:
• 63 Ryburn Road (4.7 m from designation boundary and 39.6 m from road edge)
• 495 Ruakura Road (10.3 m from designation boundary and approximately 76 m from road edge)
• 3 Vaile Road (5.2 m from designation boundary and 11.2 m from road edge for Vaile Road frontage and 17.9 m from designation boundary and 23.7 m from road edge for Ruakura Road frontage)
• 588 Ruakura Road (16.1 m from designation and 22.4 m from road edge)
• 188a Morrinsville Road (SH26) (23.0 m from designation boundary and 27.4 m from road edge).
• 211 Morrinsville Rd (SH26) (15.8 m from designation boundary and 20.6 m from road edge)
• 212 Morrinsville Rd (SH26) (13.7 m from designation boundary and 17.8 m from road edge)
• 215 Morrinsville Rd (SH26) (15.9 m from designation boundary and 20.6 m from road edge)

Traffic induced vibrations once the Ruakura Interchange is operational is unlikely to be issue as in all cases the separation distance from the closest point of a dwelling to the road edge will be well in excess of the complaint threshold distance of 8 m. In fact, traffic induced vibrations are unlikely to be perceived at 495 Ruakura Road, 63 Ryburn Road and 188a Morrinsville Road.

In contrast, designation boundaries in all cases fall within either the complaint (27 m) or damage (16 m) separation distances for general road construction activity. Therefore, this brings a potential risk that if road construction takes place close to the designation boundary, building damage could result if control measures are not in place.

**Over and Under Expressway Options**

From a vibrations perspective, there is no difference between the ‘over’ and ‘under’ interchange options as a significant amount of earthworks is associated with either option. Therefore, irrespective of which option is chosen, construction activity will have to be appropriately managed through a construction vibration management plan (CVMP) to ensure mitigation of any vibrations that could be potentially damaging to nearby properties.

**Peaty Soils**

Areas of peaty soil have the potential to generate problematic vibrations during construction of the Ruakura Interchange and once it is operational. Therefore, there is a need for these areas to be identified so that appropriate measures can be put in place to limit the disturbance of occupants of nearby buildings.

**Cumulative Effects**

There is the potential for cumulative effects at dwellings in Ryburn Road. Therefore, care will need to be taken in scheduling construction activities in the vicinity of Ryburn Road that generate large ground vibrations, such as piling and compaction, to ensure they do not occur concurrently at the Ruakura Interchange project, the Ruakura Development (inland port and logistics hub) and the Waikato Expressway, Hamilton Section project.
Summary

The potential for problematic vibrations with the proposed Ruakura Road interchange primarily relate to its construction and not the operation of the Expressway. However, these construction based vibrations will be only temporary and of limited duration and so can be managed and controlled through selection of appropriate equipment and scheduling of the construction activity. In particular, the effects can be appropriately mitigated through a Construction Vibration Management Plan.

All existing residential properties are sited 8 m or more away from the closest trafficked lane. This is considered a sufficient separation distance to ensure building occupants will not be disturbed by ground vibrations resulting from the operation of the Ruakura Interchange. Therefore, no specific mitigation of traffic-induced vibrations is considered necessary.

Vibration effects are considered to be minor provided any construction activity associated with local road connections, specifically Ryburn Road, Vaile Road and SH26 (Morrinsville Road), are specifically addressed in the Construction Management Plan. Proposed conditions are included in Appendix A of Volume 1.

5.7 Air Quality Effects

The potential effects on air quality associated with this proposal have been assessed by an Environmental Scientist familiar with the site and the wider Expressway project. The potential effects and proposed mitigation are summarised below.

There are two potential sources of discharges to air associated with the proposed Ruakura Interchange. These are dust emissions from earthworks during construction, and vehicle emissions from the constructed Expressway and connecting roads during operation.

Methodology

The assessment is a desktop investigation of potential discharges to air from the Project. The assessment predicts impacts of vehicle emissions on properties with residential dwellings located in the vicinity of Interchange and along Ruakura Road, Silverdale Road and SH26. The assessment applies a Tier 2 approach recommended in the Good Practice Guide for Assessing Discharges to Air from Land Transport (MfE June 2008), and the draft NZ Transport Agency Guide to Assessing Air Quality Effects for State Highway Asset Improvement Projects (NZ Transport Agency, September 2012). The Tier 2 significant criteria are set out in Table 4-17 below.

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Standard/guideline Limit</th>
<th>Averaging time</th>
<th>Significance criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM10</td>
<td>50 µg/m³</td>
<td>24 hour</td>
<td>2.5 µg/ m³</td>
</tr>
<tr>
<td>PM2.5</td>
<td>25 µg/m³</td>
<td>24 hour</td>
<td>1.25 µg/ m³</td>
</tr>
<tr>
<td>NO2</td>
<td>40 µg/m³</td>
<td>annual</td>
<td>2.0 µg/ m³</td>
</tr>
</tbody>
</table>

Table 4-17: Tier 2 air quality significance criteria

If the screening assessment shows that the levels of PM$_{10}$, PM$_{2.5}$ and NO$_2$ are within the significance criteria, then the levels of other road transport related contaminants will be acceptable, (MfE, June 2008 and NZTA, September 2012).

**Assessment of Vehicle Emissions**

At all receptor sites, concentrations are below the significance criteria shown in Table 4-17. The assessed effect of vehicle emissions from the Interchange and new roads on the nearest dwellings will be less than minor due to the free flowing traffic conditions, moderate traffic volumes and the long distance from the carriageway. Beyond the areas adjacent to the project, air quality will generally remain the same depending on the amount of traffic on local roads and further residential development in these areas.

This assessment considers a conservative scenario, when poor meteorological conditions coincide with high traffic volumes.

**Assessment of Fugitive Dust Emissions from Construction Activities**

The assessment of construction dust emissions shows that the deposition of large airborne particles appears within 100 metres from the source, to perhaps 300 metres from the source under dry and windy conditions. The nearest residential dwellings will be located more than 300 metres from the Interchange, and it can be assumed that there will be no dust effects beyond the distance of 300 metres from the Interchange.

Fugitive dust emissions could potentially occur in the vicinity of the construction sites along the connecting roads. These dust emissions and potential effects can be controlled by a range of mitigation measures. If dust mitigation measures are implemented as necessary during construction, fugitive dust emissions from construction activities will be appropriately mitigated.

**Control of Dust Emissions**

Effective dust management will be achieved through the Construction Management Plan that will be used by all contractors to manage, mitigate and minimise dust effects. Examples of such appropriate measures to minimise or eliminate potential impacts on local air quality will include, but not be limited to, the following:

- Design the construction site to minimise top soil disturbing areas, stockpiles and distances travelled on unpaved roads.
- Site access roads can be constructed of pavement materials that minimise dust disturbance.
- Water trucks or similar water spraying facilities should be available on the site to keep soil handling areas and unpaved roads damp in the case of windy and dry weather conditions.
- Wind fencing can be used as a wind control measure.
- Dampening down soil material that needs to be moved or transported during dry and windy weather conditions.
- Earthworks should be limited as far as practical, or suspended if necessary during dry and windy weather conditions.
• Vehicle speed within the construction site and on access roads should be controlled and limited as far as practical.

• Trucks used for topsoil stripping and moving soil materials need to be washed down, when leaving construction sites, particularly in dry and windy weather conditions. In the case of potential fugitive dust emissions, all loaded material should be covered.

• Liaison with local residents in case of fugitive dust emission complaints, with measures in place to address complaints as received.

If mitigation measures are implemented as necessary during construction, dust emissions from construction activities will be appropriately mitigated. It is anticipated that the effect of these emissions on the local environment will be minor.

**Cumulative Effects**

The cumulative effect of construction dust emissions from the Interchange and Inland Port construction sites will be minor. This conclusion is based on the assumption that all required dust mitigation measures will be implemented at construction sites.

**Summary**

The assessment demonstrates that the effect of vehicle emissions (once the project is operational) will be less than minor, and it is anticipated that the ambient air concentrations at the nearest residential dwellings will remain nearly at the same levels after construction of the interchange.

There is potential for adverse effects during construction as a result of fugitive dust emissions deposited within 100 metres from the source, to perhaps 300 metres from the source under dry and windy conditions. However, if mitigation measures are implemented as necessary it is anticipated that the effect of these emissions on the local environment will be minor. Proposed conditions are included in Appendix A of Volume 1.

**5.8 Contamination Effects**

The potential effects associated with disturbing contaminated land have been assessed by an Engineering Geologist familiar with the site and the overall project. The potential effects and proposed mitigation are summarised below.

**Methodology**

Opus has prepared a preliminary site inspection (PSI) report for TGH\(^6\) associated with the Ruakura Development. The Agency has obtained permission from TGH to use the information contained within that PSI report to inform this NOR in terms of land contamination. The assessment is based on a desk study and site walkover inspection of the areas of land affected by the proposed interchange.

Assessment

It has been established through anecdotal evidence, Council records, and historical aerial photographs that the site has been subject to the following:

- Farming operations and since the 1940’s, agricultural research. Associated with this has been the storage and application of insecticides, pesticides and herbicides.
- In the past five years land to the south of Ruakura Road has been tenanted out as a dairy farm.
- A closed landfill area partially within the Ruakura Interchange footprint has been identified. This landfill had mostly accepted inert type wastes, but did occasionally include dead livestock.
- An effluent pond is located to the east of the closed landfill, and an area formerly used for solvent / liquid burning pits is located to the north of the landfill. However, both of these features are located outside of the Ruakura Interchange footprint.

Based on this information, the key issues of concern for potential contamination are the old landfill in the southern part of the interchange, the potential for asbestos containing materials in the residential house and the general site wide use as pasture land with the spreading of fertilisers, herbicides and other products associated with agricultural activities. The report also notes that there remains a possibility that additional potentially contaminative sources or issues have not yet been identified and these may come to light as work at the site unfolds.

Approach to managing effects

The management of contaminated land in New Zealand is described in the National Environmental Standard for Assessing and Managing Contaminants in Soil (NES) and the Contaminated Land Management Guidelines (CLMG) 1 to 5. Provided the proposed construction works are carried out in accordance with the procedures described in these documents, the proposed development should be undertaken without any adverse effects to human health or the environment.

It is noted that remediation of contaminated land under the NES may require a resource consent from Hamilton City Council and/or Waikato District Council. If required, this consent will be sought at a later stage, once more detailed design has been undertaken. This approach is consistent with that proposed and accepted for the recent alterations to the designation (July 2014).

The proposed approach is to develop a Contaminated Soil Management Plan (CSMP) as part of any future NES consent application, and incorporate it into the Construction Management Plan. The CSMP will include a methodology describing the requirements for further investigation and necessary remedial action plans and site validation reports in accordance with the Ministry for the Environment guidelines. The CSMP for the works must be prepared and managed by a Suitably Qualified and Experienced Practitioner as defined in the NES.

The CSMP will cover the scenarios likely to be encountered, potential risks and hazards to human health and the wider environment, the remedial options available and the means of verifying, controlling and recording remedial works. It will also address procedures for the identification of potentially contaminated land and any potential re-use of materials on site.
Subject to a CSMP required under a future NES resource consent application, it is considered that the Ruakura Interchange alteration will have no more than minor effects in relation to land contamination.

5.9 Stormwater Effects

The potential drainage and flooding effects of the Ruakura Interchange and relocated Ruakura Road have been assessed by an Environmental Engineer familiar with the site. The potential effects associated with drainage and flooding and proposed mitigation are summarised below.

Factors influencing stormwater design and stormwater design standards

In developing the stormwater design, consideration has been given to a number of influencing factors, including the Waikato-Tainui Raupatu (Waikato River) Claims Settlement Act 2010, geology and sub-surface conditions, rainfall data and climate change, existing surface water outfalls, and land area and elevation.

Consultation with HCC, WDC, and WRC has resulted in stormwater design criteria being adopted for the Expressway Project and for the proposed NOR works in relation to rainfall, treatment of road runoff, stream channel erosion control, peak flow attenuation, sediment control during construction and waterway crossings. These criteria are set out in the stormwater assessment report (Volume 2, Appendix 2H).

Drainage for the full-diamond interchange (Expressway plus ramps including the wetland) at Ruakura has already been accounted for in the consent application lodged with the WRC (Ref: 130361). This assessment therefore only relates to the connecting roads.

Assessment

Environmental effects that are associated with the road construction can be divided into short term effects that occur during construction, and long term effects that occur during the operation and maintenance of the proposed works.

Short term effects arise during construction as a result of earth working activities including culvert construction. Stormwater flowing over the proposed works can mobilise sediment, and carry it off-site into neighbouring watercourses, and eventually into the Waikato River. This sediment laden runoff reduces stream water quality, and as it settles out can smother the base of the stream suffocating aquatic life.

Long-term effects arise during the operation of the project, as the creation of impervious road surfaces causes stormwater to be discharged at a faster rate, and in greater volumes. This can cause flooding, and increase the rate of erosion within the receiving watercourses. The creation of new pavement can also result in traffic-generated contaminants such as heavy metals, and hydrocarbons to be discharged into neighbouring watercourses, and eventually the Waikato River.
Cumulative Effects

Both the Waikato Expressway Hamilton Section and the Ruakura Development PPC have now been consented, and are therefore legally clear to proceed. Although they have not yet been constructed, these neighbouring projects have been considered as if they already exist for the purpose of this AEE.

Short-term (i.e. construction-related) effects could be exacerbated if multiple projects are constructed at once. In addition, with regard to long-term effects, each project will release contaminants to the environment; the ultimate environmental effect will be due to the sum of these releases. The increased impermeable area associated with each project will result in increased flows and reduced ground soakage. Stream peak-flow increases will be approximately equal to the sum of the individual increases, modified by timing effects.

Mitigation

Short-term effects will be mitigated by implementing erosion and sediment control practices that are consistent with the Erosion and Sediment Control Guidelines for Soil Disturbing Activities (WRC 2009). Opus prepared an indicative Erosion and Sediment Control Plan (ESCP) for the Expressway as part of the resource consent application. Similar practices will be applied to the proposed works, but at a much smaller scale and, with the flat topography, should not cause any major erosion or sediment control risks. A final ESCP will be prepared by the successful contractor as part of their Construction Environmental Management Plan. This plan will be certified by the WRC and will address the contractor’s specific construction methodology.

The potential long-term effects will be mitigated by implementing practices that are consistent with those outlined in the NZTA’s Stormwater Treatment Standard for State Highways Infrastructure. In particular:

- Surface water will be collected and conveyed, ensuring provision of a safe and efficient road, through the management of surface water depths and the removal of excess water.
- Stream erosion will be mitigated by capturing and slowly-releasing flow from what is known as the extended-detention design storm, as defined in the NZTA standard.
- Stormwater runoff created by the new road will be detained and slowly released at 80% of the pre-development rate for the 1% AEP storm event. Flow from the 10% and 50% AEP storms will be detained and released at their pre-development rates. This standard will be applied to all new roads and to existing roads being upgraded in proportion to their new impermeable area.
- Treatment wetlands, wetland and vegetated swales will be used to convey and treat runoff to remove suspended solids, heavy metals, hydrocarbons, and other traffic-related pollutants such as scums, foams or floatable materials derived from the new impermeable surfaces. Where surface water is to be managed by kerb and channel, catchpits will be used to remove gross pollutants and road-derived sediment before the runoff is discharged to a treatment device.

With regard to the potential cumulative effects, the earthworks footprint of the link roads project is small compared to the other projects, the topography is flat and volume needing to be earthworked is relatively small.
The moderately-trafficked link roads are likely to be more benign in terms of contaminant generation than the Expressway and the industrial TGH development. To the extent that the link roads represent a transfer of traffic from an untreated road to a treated road, there will be some net benefit, however this is difficult to quantify as the existing Ruakura Road probably contains some informal stormwater treatment already in the form of berms and vegetated water table drains.

Each project will incorporate peak flow attenuation and extended detention to minimise downstream flood effects and stream erosion effects. The 1% AEP flow will be detained to less than 80% of the equivalent pre-development flow. This approach is recommended by NZTA’s Stormwater Treatment Standard to address cumulative effects and timing effects in the absence of a specific catchment analysis.

On this basis, no specific mitigation is recommended in relation to cumulative effects.

**Summary**

Providing the works are competently constructed and managed, and the mitigation measures outlined in this report are applied, the effects on stormwater quality and quantity entering the receiving environment are expected to be less than minor.

**5.10 Social Effects**

The potential social effects associated with this proposal have been assessed by a social impact assessor. The potential effects and proposed mitigation are summarised below. The full assessment report is provided in Volume 2, Appendix 2I.

**Methodology**

The social impact assessment employs a framework for assessing social effects based on principles from the International Association for Impact Assessment, taking into consideration the requirements of the NZ Transport Agency’s (draft) Z/19 Standard. Effects are considered in relation to four main themes: way of life; wellbeing; environment and amenity; and community.

The methodology includes a community profile, which describes the existing social environment around the Project area. The community profile includes a description of the existing environment, a description of key community facilities and amenities in the area, a discussion of travel patterns and linkages in the area, and a review of policy and strategic documents.

Social effects have been identified by reviewing a number of sources. The initial desktop review of communities in the area, combined with aerial images and maps prepared by the project team identified potential social effects, and community groups of interest to the assessment. Direct observations of the Project area were carried out in a site visit providing context for the proposed project. Telephone and face-to-face discussions were held with community groups to better understand how the project may affect them. Other technical specialists’ assessments were reviewed from a social perspective to further understand the potential effects of the project.

**Assessment**

The NOR is expected to result in very slight to significant positive regional social effects and very slight to moderate positive local social effects. Positive effects as a result of the project include:
• Improved regional and local connectivity, enabling the movements of people to and from sources of education, recreation and employment.
• Facilitated development of a regionally significant commercial facility.
• Support for regional and city-wide community plans and aspirations.
• Enhancement of local amenity of active transport networks for pedestrians and cyclists, which has the potential to encourage greater use among local residents, as well as workers and students in the area.

Identified negative effects as a result of the project include:

• Potential negative effects to safety and amenity of the local road networks for pedestrians and cyclists during construction, particularly in the location of schools and community facilities in the Silverdale area.
• Potential effects to neighbourhood amenity both during construction and once operational as a result of changes in traffic volumes and visual changes.
• Very localised severance of connectivity at Ruakura Road (Percival/Ryburn Road area) as a result of partial road closure.
• Small amounts of private property acquisition (partial acquisition and one dwelling to be removed).

The social impact assessment identifies recommended mitigation measures to address identified social effects. In some cases mitigation proposed by another technical specialist is considered sufficient to address social concerns, but in other cases additional measures are recommended by the social impact assessor.

The project includes existing mitigation for potential safety and congestion effects, and there are a number of conditions on the existing designation for the Hamilton Section which will address most of the identified social effects.

Additional mitigation has been proposed to conditions 2 and 9 of the existing designation, to include certain community facilities and sites in notification related to the project, and in the community liaison details.

Summary

With proposed mitigations in place, negative effects can be managed to result in neutral/very slight negative regional effects and very slight to minor negative effects at local levels. Overall, the social effects can be categorised as being positive at the regional level, with a mixture of negative and positive effects at finer local levels.

5.11 Noise Effects

The potential effects associated with construction and traffic noise have been assessed by a Transport Research and Noise Specialist. The potential effects and proposed mitigation are summarised below.

It is important to note that the existing designation comprises the original designation (designated in 2005) with some discrete alterations that were designated in July 2014. Those alterations affected locations separate from the location of the proposed Ruakura Interchange and connecting roads. In the area of the Ruakura NOR, the existing designation is as originally designated in 2005.
With regard to road-traffic noise, in essence, the noise conditions on the existing designation require that the road is built with noise levels mitigated to achieve, subject to practicability, the average noise design levels of the Transit New Zealand Noise Guidelines.

Methodology

The assessment is made to the Noise Guidelines which set average noise design levels based on the existing noise environment. As described in the Noise Assessment Report (Volume 2, Appendix 2J), compliance with an average noise design level can be taken as having an effect no more than minor.

Road-traffic noise levels of the NOR were assessed for 2021 and 2041. The baseline environment incorporates the designated route design, and the assessment includes the two options for the interchange, being “the Expressway over Ruakura Road” and “the Expressway under Ruakura Road”.

Therefore, six noise environments were modelled:

- Baseline (designated route) for 2021 and 2041;
- Expressway over Ruakura Road for 2021 and 2041; and
- Expressway under Ruakura Road for 2021 and 2041.

To facilitate assessment of the effects of the NOR, assumptions made for the designated “do-minimum” project were used for the proposed altered “do-minimum” project. For example, the Expressway and all other roads have been sealed with Grade 3/5 two-coat chipseal as a default assumption. This is a noisy road surface and roads may in reality be surfaced with a quieter single-coat chipseal or other road surface. Note that the term “do minimum” is a term with a specific meaning defined in the New Zealand Standard for road-traffic noise, NZS 6806. The term is not used to describe an approach of doing the minimum possible. Rather, it describes the roading network design as it would be without any measures included specifically for noise mitigation purposes.

Operational Noise

The assessment at 2021 demonstrates that where there are exceedances, overall both the presence and scale of exceedances are almost equivalent across the three noise environments (baseline, Expressway over and Expressway under). This indicates that the effects of the NOR are comparable with the effects of the baseline (designated route) which have already been assessed and agreed.

A section of Ruakura Road is included within the NOR. Though the road-traffic noise levels for houses adjacent to this section of Ruakura Road do change between the baseline (designated route) and the proposed routes, the total noise levels do not exceed the Noise Guidelines and so the noise level changes can be considered as having a no more than a minor effect, if any.

The NOR will have little effect for houses on Davison Road; possibly a small noise level decrease but this would have very slight or negligible effect. The proposed designation alterations do not introduce effects to houses in the area of Nevada Road. Any other noise level changes caused by the NOR tend to occur where there are no noise-sensitive receivers.

Some large exceedances are noted, such as for 134C Percival Road, 55 Ryburn Road, and 63 Ryburn Road. However, the scale of the exceedances is consistent between the three 2021 noise environments. These exceedances highlight the area of Percival Road and Ryburn Road, which is consistent with the 2002 evidence for the designation, though the scale of the exceedances is now identified as larger than that previously identified. It is considered this is due to detail of the current modelling being greater than that practicable for the modelling for the 2002 evidence.
For each exceedance, the baseline (designated route) and the proposed routes have been considered for differences that could adversely affect the practicability of mitigating that exceedance. No substantive difference was found.

The noise assessment concludes that for both the existing designation and the NOR, the Noise Guidelines can be achieved, subject to practicability, and the extent of mitigation is similar.

In terms of the two Ruakura interchange configuration options, the assessment concludes that both the presence and scale of exceedances are almost equivalent. On this basis, from a noise perspective, the assessment states that the proposed alteration can be made without requiring the configuration to be defined.

The 2041 results are consistent with the 2021 results. Therefore, the findings and discussion of the 2021 results outlined above can also be applied to assessment of the 2041 noise environments. To be clear, the assessment at 2041 indicates that for both the existing designation and the proposed designation alterations, the Noise Guidelines can be achieved, subject to practicability, and the extent of mitigation is similar.

Conditions relating to noise assessment and mitigation are proposed, and included as Appendix A of Volume 1.

The noise assessment also considers cumulative effects on the environment associated with the Ruakura Development, East Coast Main Trunk Line and the Waikato Expressway. It is noted that the noise assessment uses traffic modelling data which takes into account the Ruakura Development and its influence on traffic demands. Noise from the Ruakura Development land use is not included in the road-traffic noise modelling, and neither is the East Coast Main Trunk Link. The assessment notes that if these additional noise sources were included, the ambient noise levels upon which Noise Guidelines average noise design levels are based, may be higher and as a consequence the average noise design levels would be higher. Therefore, excluding these additional noise sources is a conservative approach.

Where the Project is the dominant noise source, adding the noise allowable from the Logistics Area will cause little change to the total noise level. Cumulative noise effects are not expected to be unreasonable.

**Construction Noise**

The proposed designation alterations result in only small to moderate changes in separation distance between the construction activity and nearby receivers, compared with separation distances with the existing designation. Therefore it is expected that the ability for construction noise effects associated with the proposed designation alterations to be reasonable is little changed from the ability of the existing designation, and the periods or extents for which alternate noise management methods may need to be used will also be similar. Therefore the assessment concludes that provided a Construction Noise Management Plan is appropriately prepared and implemented, construction noise effects of the proposed designation alterations will be reasonable.

Construction noise conditions are proposed, and attached as Appendix A of Volume 1.
Conclusion

Subject to the mitigation proposed, it is concluded that the noise effects both during construction and operation, will be no more than minor.

5.12 Summary of Effects

The assessment above has considered the actual and potential effects of the Ruakura Interchange NOR, as required by s171(1) of the RMA.

The temporary effects associated with construction noise, vibration, dust and traffic have all been considered. For noise and vibration, there is potential for adverse effects on identified properties. A Construction Noise and Vibration Management Plan (CNVMP) has been recommended as the most appropriate way of mitigating these effects.

Similarly, it is recommended that a Construction Management Plan (CMP) be prepared which identifies measures to mitigate adverse effects associated with construction dust. Effects of construction traffic are also best addressed through the CMP, which will be certified by Waikato District Council and Hamilton City Council. Although unlikely, Silverdale Road could be used to transport earthwork material to the site. It is noted that Silverdale School gets direct access from this road, hence construction traffic during peak times of the day could create a safety issue. To help prevent this occurrence a condition is recommended to restrict truck traffic in the vicinity of Silverdale School, particularly during normal school drop off and pick up times.

Once operational, the air quality assessment demonstrates that the effect of vehicle emissions will be less than minor, and that the ambient air concentrations at the nearest residential dwellings will remain nearly at the same levels after construction of the interchange. Similarly, any effects of vibration from the operational project are assessed as being less than minor and do not require any mitigation.

Noise from the operating interchange and connecting roads has the potential to affect the properties closest to the designation. However, the noise assessment has concluded that the Noise Guidelines can be achieved (subject to practicability), and that the extent of mitigation is similar to what is required in association with the existing designation.

The traffic assessment concludes that the Ruakura Road interchange and connecting roads will have no more than a minor traffic and safety effect. In addition, the NOR provides a positive overall contribution to the network efficiency by providing a direct connection between the PPC activities (particularly the Inland Port and Logistics area) and the Waikato Expressway, thereby reducing heavy commercial vehicles on city roads such as Wairere Drive and Cambridge Road. Effects on alternative modes of transport are expected to be positive due to the inclusion of shared off road facilities along Relocated Ruakura Road, and a concrete pathway between Vaile Road and SH26, neither of which exist at present.

The alteration can be given effect to without any significant landscape, visual or urban design effects. There will be interim effects before the Ruakura Development is established, however in the long term, these will be absorbed by the built form of the Ruakura Development. Overall, the inclusion of the Interchange and associated connecting roads are considered to sit well within the landscape and any landscape, visual or urban design effects can be adequately mitigated.
Potential social effects arising during construction and operation have been considered. Effects have been considered at both the regional and local level. Negative effects of the project, with the exception of the localised effects of the closure of part of Ruakura Road are able to be mitigated. Identified local dis-benefits, or negative effects need to be considered in light of the designated Expressway, and what would be a small scale change in comparison. Overall, the social effects can be categorised as being positive at the regional level, with a mixture of negative and positive effects at finer local levels.

With regard to the footprint of the designation, there is no evidence to suggest the study area holds archaeological or historic values, and as such, there are no known reasons to alter or modify the current proposal on archaeological grounds. Accidental discovery protocol conditions are considered appropriate and with their implementation any potential effects regarding archaeology will be no more than minor.

In addition, the potential effects associated with the disturbance of contaminated land have been considered. The key issues of concern for potential contamination are the old landfill in the southern part of the Interchange, the potential for asbestos containing materials in the residential house to be removed and the general site wide use as pasture land with the spreading of fertilisers, herbicides and other products associated with agricultural activities. Contaminated sites that have not been identified may also be uncovered during construction. Subject to a Contaminated Soil Management Plan (CSMP) required under a future National Environmental Standard (NES) resource consent application, it is considered that any actual or potential disturbance of contaminated land will have no more than minor effects.

The proposal has the potential to create both short and long term adverse effects associated with stormwater generation and run-off. Potential effects include sediment laden run-off, flooding, stream erosion and pollution. These effects have been assessed, and subject to the recommended mitigation measures, are considered to be no more than minor.

The assessment of ecological effects identifies that for the most part, the effects of the NOR are no more than minor. However, approximately 206m² of black mudfish and longfin eel habitat will be lost through installation of culverts. Offset mitigation is required to mitigate for this at 2 times the stream channel area lost, totalling approximately 412m². An appropriate mitigation option is identified along Ruakura and Holland Roads. Subject to the mitigation proposed, including matters which will be addressed through the existing WRC consents, and those soon to be lodged, the NOR is considered to have no more than minor adverse effects on ecology.

Consideration has also been given to the two options for Ruakura Road interchange, with the Expressway passing either under, or over Ruakura Road. The noise and vibration assessments have concluded that the two options make no material difference to the assessment of effects. The landscape, visual and urban design assessment identifies that the Expressway passing over Ruakura Road provides a number of benefits relating to accessibility for pedestrians and cyclists, and the development of adjacent land. However, the traffic assessment identifies that from an expressway operation and safety perspective, the opposite configuration (Expressway passing under Ruakura Road) is the preferred layout arrangement as this reduces the speed differential between trucks merging from the northbound on-ramp and vehicles using the outer lane of the expressway.

Overall, it is concluded that the effects on the environment will be no more than minor provided that mitigation measures are adopted as recommended. Mitigation will be captured by adopting the recommended conditions listed in Appendix A. These conditions are based on the conditions...
accepted for the alterations to the same designations (NOR1A and NOR1B), dated July 2014. These conditions have only been modified where necessary to address matters unique to this alteration. Other mitigation measures (particularly those relating to ecology and stormwater) will be better addressed through the WRC consents being assessed in parallel with this NOR application. WRC consents will need to be obtained prior to giving effect to this alteration.
6 Consultation

6.1 Overview

This alteration is part of the wider Hamilton Section of the Waikato Expressway. Extensive consultation has been undertaken in relation to this project as a whole, including with statutory bodies, Tangata Whenua, key stakeholders and people who are affected by, or who have an interest in, the project. This has been undertaken over the past three years, using various consultation methods.

A full recount of these consultation activities is not provided here, but can be found in the Project’s Resource Consent applications (WRC reference 130361).

6.2 Ruakura Interchange Consultation

Over the course of the secondary investigation process (which began late 2010) a number of options were considered for providing connectivity to the Hamilton Section between Greenhill Road and SH26. These options were presented to the public at various points through both newsletters and information days.

As a brief summary, the following consultation activities are noted with respect to the Ruakura Interchange:

- Project update newsletters delivered to properties within 200m of the Expressway designation and to key stakeholders (e.g. Hamilton City and Waikato District Councils, TGH).
  - Update 1 (October 2010): The possibility of a Ruakura Interchange was signalled
  - Update 2 (December 2010): Advised of up-coming information day and signalled the possibility of including an interchange at Ruakura
  - Update 3 (December 2011): Summarised likely changes to the designation, including the possibility of a ‘split-diamond’ interchange between Ruakura and SH26.
  - Update 4 (September 2012): Presented the possibility of a Fifth Ave interchange and realigned Holland Road.
  - Update 5 (April 2013): Advised of up-coming information day indicated a Ruakura Interchange located as per this alteration.
  - Update 6 (October 2013): Advised that consent applications and alterations had been lodged and that these alterations excluded the Ruakura Interchange. Also highlighted the possibility of an alteration for the Ruakura Interchange, subject to the BOI process.

- Project Information Days provided an opportunity for information to be presented and for the community to discuss the overall project with Agency staff and their consultants:
  - Project Information Day (February 2011): Signalled the possibility of an interchange at Ruakura
Ruakura Interchange – Notice of Requirement

- Ruakura Information Day (September 2011): This was joint with HCC and presented the option of the Ruakura/SH26 split diamond interchange.
- Fifth Ave Information Day (September 2012): Presented the option of a Fifth Ave Interchange (instead of a Ruakura Interchange).
- Project Information Day (April 2013): Presented a Ruakura Interchange located as per this alteration.

- On 6 June 2013 meetings were held with Livestock Improvement and Dairy NZ, both of whom are based on Ruakura Road and employ 530 and 130 staff on-site respectively. The Ruakura Interchange and link to Ruakura Road was explained to senior management of both companies.

- In addition to the project update letters, on 10 February 2014 a letter was delivered to all properties located in the vicinity of Ruakura, Davison, Vaile (in part), Ryburn and Percival Roads, to advise landowners of the imminent lodgement of a NOR to provide for the Ruakura Interchange and relocation of Ruakura Road. The same letter was sent to a number of key stakeholders including the University of Waikato.

- The Agency issued a press release on 12 February 2014 outlining the same information delivered to properties on 10 February 2014.

From February to July 2014, there was no further consultation with stakeholders of the general public, as the Agency awaited the outcome of the PPC BOI process. With an interim decision from the BOI being indicated for early August 2014, the project started up once more on the premise of a favourable outcome to the PPC application. On 17 July 2014, Opus Planners met with the following stakeholder groups to inform them of the current project status, and also to gather information in relation to the potential social impacts of the Ruakura Interchange proceeding:

- University of Waikato
- Silverdale Residents Group
- Ruakura Residents Group
- Newstead Residents Association

The summary above demonstrates that regular consultation has occurred with key stakeholders and the general public over the previous 3.5 years regarding the Ruakura Interchange alteration.

### 6.3 Tangata Whenua Consultation

The following summarises the consultation undertaken with Tangata Whenua for the project as a whole.

A Statement of Identified Māori Interests (SIMI) was prepared in accordance with Agency requirements in October 2010. The SIMI identified the Tangata Whenua groups to consult with in relation to the Hamilton Section of the Waikato Expressway.

An initial workshop was held with Tangata Whenua representatives on 21 October 2010.
Waikato Tainui and the Agency entered into detailed discussions in early 2011 with a view to forming a high level contract enabling a partnership to be established for the Hamilton Section. Through that process, an appointee from Waikato Tainui established responsibility for determining who the project team should engage with and how that should occur. As a result, a Hamilton Section specific Tangata Whenua Working Group (TWWG) was established in late 2011.

A working paper was prepared by the TWWG on 11 December 2011 as a means of expressing the key issues for Tangata Whenua. This paper was updated in March 2012 following more detailed discussions with Tangata Whenua.

In December 2012, the TWWG presented the Draft Tangata Whenua Effects Assessment Report (TWEAR). Following the delivery of this document, the project team held a meeting with the TWWG in February 2013 and provided a preliminary response to the issues raised in the document.

The TWWG (through its connection with TGH) is very aware of the Ruakura Interchange and have supported its inclusion as part of the Expressway throughout the period of consultation. This is evidenced in the Position Statement prepared by the TWWG in relation to the project, which is provided as Appendix E.

Consultation with the TWWG is on-going, including a recent meeting held 3 July 2014. It is expected that consultation will continue, and this is also underpinned by the existing consent and designation conditions which require the preparation of a Waikato Tainui Mitigation Plan (WTMP).

6.4 Affected Landowner Consultation

In order to give effect to this alteration land will need to be taken from the following entities:

- WDC
- HCC
- TGH
- Landowner – 11 Davison Road

A Ruakura Transport Reference Group was established, consisting of representatives from the three Councils, the Agency, and TGH. The purpose of this group was to meet and deal with issues in respect to the timing and planning of the Expressway, and identify and work through any local roading issues. Through these discussions all parties have been aware of the need to alter the current designations in order to provide for the Ruakura Interchange.

The landowner at 11 Davison Road was contacted by Opus on behalf of the Agency and a meeting at the property was held on 4 February 2014, where the proposal and the requirement to take a portion of her land adjacent to Ruakura Road was explained. A number of further meetings and discussions have been held with this landowner, most recently on 18 July 2014. The additional land is required to improve sight visibility for vehicles turning onto Ruakura Road from Davison Road. Negotiations with the landowner are continuing.
6.5 Ruakura Structure Plan and the Ruakura Development PPC Consultation

As a part of the Ruakura Development, a series of consultation activities have been undertaken. These have been implemented primarily by the HCC as a statutory requirement, and also by TGH.

Following feedback on the Draft Hamilton City District Plan in April 2011, TGH facilitated (under observation from HCC) two public forums held at the University of Waikato, prior to the Proposed District Plan being notified. Invitations to this event were sent to approximately 8,000 households in the catchment area. Further to this event, a site visit to the Highbrook Industrial Park in Auckland was undertaken to show people a working example of an industrial park. 16 residents attended the site visit.

An initial Ruakura Structure Plan “Open Day” was held in December 2011 (led by TGH), as an initiation to the Structure Plan process. A further three “Open Days” were held in May 2012, led by HCC as part of consultation on the Draft Hamilton City District Plan. These featured information panels/graphics outlining details of the Structure Plan, and project representatives from HCC and TGH were in attendance to answer questions.

6.6 Summary

The descriptions above demonstrate that the Agency has undertaken extensive consultation regarding the Ruakura Interchange, either as part of the overall Hamilton Section of the Waikato Expressway, or in specifically addressing the proposed Ruakura Interchange and link to Ruakura Road. Furthermore, awareness of the need for the Ruakura Interchange has been expressed through consultation on the Structure Plan and PPC processes.
7 Statutory Assessment

7.1 Resource Management Act 1991

The RMA governs the use and development of New Zealand’s natural and physical resources. Part 2 establishes the Purpose and Principles of the RMA. The following section outlines the relevant sections of the RMA that have been considered with this alteration.

7.1.1 Section 181 – Alteration of Designation

To be processed as an alteration to designation under section 181 of the RMA, the following must be satisfied:

(1) A requiring authority that is responsible for a designation may at any time give notice to the territorial authority of its requirement to alter the designation;

(2) Subject to subsection (3), sections 168 to 179 shall, with all necessary modifications, apply to a requirement referred to in subsection (1) as if it were a requirement for a new designation;

(3) A territorial authority may at any time alter a designation in its district plan [or a requirement in its proposed district plan] if—

(a) The alteration—

(i) Involves no more than a minor change to the effects on the environment associated with the use or proposed use of land or any water concerned; or

(ii) Involves only minor changes or adjustments to the boundaries of the designation [or requirement]; and

(b) Written notice of the proposed alteration has been given to every owner or occupier of the land directly affected and those owners or occupiers agree with the alteration; and

(c) Both the territorial authority and the requiring authority agree with the alteration — and sections 168 to 179 shall not apply to any such [alteration].

(4) This section shall apply, with all necessary modifications, to a requirement by a territorial authority to alter its own designation [or requirement] within its own district.

Assessment

Section 181(3)(a)(i) makes reference to the alteration involving a no more than minor change to the effects on the environment, or only minor changes or adjustments to the boundaries of the designation. In the context of the existing Expressway, the proposed alteration will involve a change in the scale and extent of the designation, which could be seen as more than minor. In addition, it could be argued that the adjustments to the boundaries are more than minor given their geographical extend. As such, s181(3) is not considered to be available as an option for addressing this alteration.

The Agency is also requesting that the alteration be publicly notified (in accordance with section 95A(2)(b) of the RMA and is anticipating a section 92 request for further information given that the application needed to be prepared in a very short timeframe.

As it is not possible to meet all the requirements of section 181(3) the alteration will need to be processed in accordance with section 181(2), and sections 168 to 179 shall apply with all necessary
modifications as if it were a requirement for a new designation. This NOR has been prepared accordingly.

The Agency is also requesting that the alteration be publicly notified (in accordance with section 95A(2)(b) of the RMA.

7.1.2 Section 171 – Recommendation by Territorial Authority

In accordance with section 171 of the RMA, a territorial authority must take into account the following when considering a requirement:

(1A) When considering a requirement and any submissions received, a territorial authority must not have regard to trade competition or the effects of trade competition;

(1) When considering a requirement and any submissions received, a territorial authority must, subject to Part 2, consider the effects on the environment of allowing the requirement, having particular regard to:

(a) Any relevant provisions of:
   (i) A national policy statement;
   (ii) A New Zealand coastal policy statement;
   (iii) A regional policy statement or proposed regional policy statement;
   (iv) A plan or proposed plan; and

Consideration of the proposed alteration with regard to relevant environmental standards, policies and plans, and Part 2 is provided below.

(b) Whether adequate consideration has been given to alternative sites, routes, or methods of undertaking the work if:
   (i) The requiring authority does not have an interest in the land sufficient for undertaking the work; or
   (ii) It is likely that the work will have a significant adverse effect on the environment; and

The Agency as the requiring authority does not have an interest in the land sufficient for undertaking the proposed works. Accordingly, due consideration has been given to alternatives as discussed in section 4.2 of this report.

(c) Whether the work and designation are reasonably necessary for achieving the objectives of the requiring authority for which the designation is sought; and

The proposed alteration is the outcome of a Network Connections investigation which concluded that interchanges at Greenhill and Ruakura best served the area if the Ruakura Structure Plan (and in particular the Inland Port) were to proceed. This alteration is lodged on the basis of the BOI’s approval of the Ruakura PPC. The report on the Network Connections investigation is provided in Appendix D.

(d) Any other matter the territorial authority considers reasonably necessary in order to make a recommendation on the requirement.

(2) The territorial authority may recommend to the requiring authority that it:
(a) Confirm the requirement:
(b) Modify the requirement:
(c) Impose conditions:
(d) Withdraw the requirement.

(3) The territorial authority must give reasons for its recommendation under subsection (2).

7.2 National Policy Statements

Section 171(1)(a)(i) of the RMA requires consideration of any relevant provisions of “a national policy statement”.

7.2.1 Electricity Transmission

The NPS for Electricity Transmission sets out the objective and policies to enable management of the effects of the electricity transmission network. The most relevant aspects of the NPS are Policies 10 and 11, which relate to managing the adverse effects of third parties on the transmission network.

Assessment

Transmission lines cross the Expressway alignment in a number of locations, including at Ruakura to the north of the interchange. However the NOR for Ruakura does not significantly change the impacts on transmission lines, when compared with the existing designation. Design work associated with the Transpower lines crossing the designation in this location is currently being undertaken by Transpower’s consultants. Proposed conditions are included to ensure that construction and operation of the Expressway will not adversely affect the operation of any transmission lines.

7.2.2 Freshwater Management (2014)

With respect to this NOR, the only relevant national policy statement is the National Policy Statement for Freshwater Management 2014 (“Freshwater NPS”), which became operative on 1 July 2011. The most relevant aspect of the NPS is Objective A1, which is:

To safeguard (a) the life-supporting capacity, ecosystem processes and indigenous species including their associated ecosystems, of fresh water; and (b) the health of people and communities, at least as affected by secondary contact with fresh water; in sustainably managing the use and development of land, and of discharges of contaminants.

Assessment

As discussed in the ecology assessment report, the treatment proposed is sufficient to ensure that the life-supporting capacity of ecosystem processes and indigenous species will be safe-guarded. In addition, the proposed treatment is considered sufficient to ensure that the health of people and communities will also be safe-guarded, due to the level of treatment proposed.
7.3 National Environmental Standards

7.3.1 Air Quality (2004)

The NES for Air Quality includes three ambient (outdoor) air quality standards, which relate to air emissions from motor vehicles and are therefore relevant to this alteration. Schedule 1 of the NES sets out ambient air quality concentration limits for carbon monoxide (CO), nitrogen dioxide (NO2), and fine particulate matter, that is, less than 10 micron in diameter (PM10).

**Assessment**

The construction and operation of the Ruakura Interchange and relocation of Ruakura Road will result in construction dust and vehicle emissions, being discharged to air. The air quality effects and mitigation measures are discussed under section 5.9 of this report, and an Air Quality Effects Assessment is included in Volume 2 of this NOR report.

The assessment demonstrates that the effect of vehicle emissions (once the project is operational) will be less than minor, and it is anticipated that the ambient air concentrations at the nearest residential dwellings will remain nearly at the same levels after construction of the interchange.

There is potential for adverse effects during construction. However, if mitigation measures are implemented as necessary it is anticipated that the effect of these emissions on the local environment will be minor. The air quality effects will not exceed any of the relevant standards within the NES.

7.3.2 Assessing and Managing Contaminants in Soil to Protect Human Health (2011)

The NES for Assessing and Managing Contaminants in Soil to Protect Human Health, provides a nationally consistent set of planning controls and soil contaminant values. It also ensures that land affected by contaminants in soil is appropriately identified and assessed before it is developed and if necessary, the land is remediated or the contaminants contained to make the land safe for human use.

The NES mandates the methods for setting applicable numerical standards for contaminants in soil that have the potential to impact on human health. Applicable standards for 12 contaminants (called “priority contaminants” in regulation 7(2) of the NES) were derived and must be used if the land use fits within the particular exposure scenario. All territorial authorities are required to give effect to and enforce the requirements of the NES. The NES does not affect existing land uses.

**Assessment**

The contamination effects and potential mitigation measures associated with this alteration are discussed in section 5.5 of this report. A Contaminated Land Effects Assessment is included in Volume 2 of this NOR report. It is noted that the alignment of the Ruakura Road and part of the interchange pass over a landfill and that agricultural land use may have led to contaminants being present in the soil across the site. Any consents required under the NES will be sought at the outline plan approval stage, once the contractors and final design of the Expressway have been confirmed.
7.4 Other Regulations

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

On 25 November 2010, the Waikato-Tainui Raupatu Claims (Waikato River) Settlement Act 2010 (the Settlement Act) came into force in its entirety. The Settlement Act effectively creates Iwi co-management of the Waikato River in partnership with the Crown.

The overarching purpose of the Settlement Act is to restore and protect the health and wellbeing of the Waikato River for future generations. Although this project is not located directly on or adjacent to the Waikato River, section 6 of the Settlement Act clearly defines the Waikato River as: “The Waikato River and its catchments including all water courses, tributaries, streams, and watercourses flowing into the River”.

Te Ture Whaimana o Te Awa o Waikato – the Vision and Strategy for the Waikato River is set out in Schedule 2 of the Settlement Act. The Vision and Strategy is the primary direction-setting document for the Waikato and Waipa Rivers and their catchments. Under the Settlement Act, the Vision and Strategy is deemed, in its entirety, to be part of the Regional Policy Statement.

Section 171(1)(a)(iii) of the RMA requires consideration of any relevant provisions of “a regional policy statement”, which includes the Vision and Strategy for the Waikato River.

The Settlement Act is relevant to the NOR as the proposal affects watercourses that ultimately feed into the Waikato River. The stormwater and ecology assessments have considered the potential effects in relation to these watercourses. Subject to recommended mitigation, the adverse effects will be no more than minor. With the recommended mitigation measures in place, the alteration will not result in any adverse effects on the health and wellbeing of the Waikato River.

It is noted that engagement with the TWWG has been undertaken throughout the overall project, including with regard to the Ruakura Interchange, which has been supported by the TWWG in their Position Statement.

Overall, the proposed alteration is considered to be consistent with the Vision and Strategy for the Waikato River.

7.4.2 Heritage New Zealand Pouhere Taonga Act 2014

There are no recorded archaeological sites within the area of the Ruakura Interchange alteration as demonstrated in the archaeological effects assessment in section 5 of this report. Proposed conditions provide a process to be followed should any archaeological matter be discovered during construction. If necessary, the appropriate authorities would be sought from Heritage New Zealand.

Accordingly, the proposed alteration is in accordance with the requirements of the Heritage New Zealand Pouhere Taonga Act 2014.

7.5 Regional Policy and Plans

Section 171(1)(a)(iii) of the RMA requires consideration of any relevant provisions of “a regional policy statement or proposed regional policy statement.”
7.5.1 Waikato Regional Policy Statement (October 2000)

The Operative RPS sets out issues, objectives and policies relating to the natural and physical resources of the Waikato Region. District and Regional Plans must give effect to the Operative RPS. The Operative RPS addresses a wide variety of significant resource management issues.

Those considered relevant to the alteration are discussed below.

3.3.8 Soil Contamination

Objective: The range of existing and foreseeable uses of the soil resource is not reduced as a result of the contamination of soils.

Policy One: Discharges of contaminants into or onto land should be carried out in a manner designed to avoid any adverse effects on the soil resource.

Assessment

The proposed alteration does not involve any direct contamination of soils. During the construction phase there is potential for the accidental release of hazardous substances, however actions to be taken when accidental spills occur will be covered in WRC consent conditions, through the implementation of the Construction Management Plan. Where existing contaminated sites are affected, earthworks will be managed to address the potential for release of contaminated materials into the environment.

It is noted that the alignment of the Ruakura Road and part of the interchange pass over a landfill and that agricultural land use may have led to contaminants being present in the soil across the site. Any consents required under the NES will be sought at the outline plan approval stage, once the contractors and final design of the Expressway have been confirmed.

The proposal is considered to be consistent with the Operative RPS.

3.4.5 Water Quality

Objective: Net improvement of water quality across the region

Policy Three: Ensure that the adverse effects of land use on water quality and aquatic habitats are avoided, remedied, or mitigated

The proposal will treat stormwater to a high standard, through the use of stormwater wetlands and vegetated swales. The stormwater assessment concludes that the effects will be no more than minor with the proposed treatment methods in place. The impact of stormwater discharges on aquatic habitats has been considered in the ecology assessment, where it is concluded that effects will be no more than minor.

3.11.4 Maintenance of Biodiversity

Objective: Biodiversity within the region maintained or enhanced.

Policy One: Avoid, remedy or mitigate adverse effects on biodiversity

Effects on indigenous biodiversity have been considered in the ecology assessment report. The report identifies that black mudfish and longfin eel habitat will be lost through installation of culverts, which has the potential to cause a more than minor effect. However, subject to the mitigation
measures proposed, including riparian planting of approximately 412m² of roadside drain (twice the area lost), it is concluded that the biodiversity affected by the project will be maintained.

### 3.13.2 Infrastructure

**Objective:** The continued operation of regionally significant infrastructure (including network utilities) maintained or enhanced.

**Policy One:** Avoidance of significant adverse effects (including cumulative effects) on the safe and efficient operation of regionally significant infrastructure. Where significant adverse effects on regionally significant infrastructure cannot be avoided they shall be remedied or mitigated.

The proposal will support the safe and efficient operation of the Waikato Expressway, which is considered to be nationally significant infrastructure.

#### 7.5.2 Proposed Waikato Regional Policy Statement (February 2013)

The Proposed Waikato RPS sets out issues, objectives and policies relating to the natural and physical resources of the Waikato Region. It is noted that some parts of the Proposed RPS are still under appeal, including Table 6-2, which relates to industrial land use allocation and includes Ruakura.

The following Proposed RPS objectives and policies are relevant to the alteration:

**Objective 3.1A Resource Use and Development (under Appeal)**

The sustainable management of natural and physical resources, and of their use and development, recognises the social, economic and cultural benefits to the regional and national community.

**Assessment**

The proposed alteration is part of the wider Waikato Expressway project which is a significant infrastructure development, expected to deliver multiple social and economic benefits to the region and nation, whilst ensuring sustainable management of natural and physical resources. Furthermore, the alteration is required to support the Ruakura Development, which the EPA has identified as a project of national significance.

**Objective 3.8 Relationship of Tāngata Whenua with the Environment**

The relationship of tāngata whenua with the environment is recognised and provided for, including:

- a) The use and enjoyment of natural and physical resources in accordance with tikanga Māori, including mātauranga Māori;
- b) The role of tāngata whenua as kaitiaki.

**Assessment**

The Hamilton Section of the Waikato Expressway project has recognised the relationship of Tangata Whenua with the environment, through consultation with the TWWG, mandated on behalf of the local hapu. Matters of relevance to Tangata Whenua have been taken into account during the development of this entire project.
Objective 3.11 Built Environment (under Appeal)
Development of the built environment (including transport and other infrastructure) and associated land use occurs in an integrated, sustainable and planned manner which provides for positive environmental, social, cultural and economic outcomes, including by:

a) Promoting positive indigenous biodiversity outcomes;

b) Integrating land use and infrastructure planning, including by ensuring that development of the built environment does not compromise the safe, efficient and effective operation of infrastructure corridors;

c) Recognising and protecting the value and long-term benefits of regionally significant infrastructure;

e) Minimising land use conflicts, including minimising potential for reverse sensitivity;

f) Anticipating and responding to changing land use pressures outside the Waikato region which may impact on the built environment within the region;

Assessment

The Hamilton Section of the Waikato Expressway (that includes associated alterations) is considered to be regionally significant infrastructure which will provide for positive environmental, social, cultural and economic outcomes. The planning of the project has been integrated with the planning of the environs of Hamilton; both Future Proof and the Proposed RPS recognise and provide for the Expressway (see Map 6.1A in the Proposed RPS). The proposed alterations are necessary to protect the value and long-term benefits of the Expressway as regionally significant infrastructure. In addition, the Ruakura Interchange alteration represents integration of land use and infrastructure planning, whilst still protecting the benefits of the Expressway as an important piece of regionally significant infrastructure.

Policy 6.1 Planned and Co-ordinated Development (under Appeal)
Development of the built environment, including transport, occurs in a planned and co-ordinated manner which:

a) Has regard to the principles in section 6A;

b) Recognises and addresses potential cumulative effects of development; and

c) Is based on sufficient information to allow assessment of the potential long-term effects of development.

Assessment

The Project, including the Ruakura Interchange alteration is considered to have regard to the relevant principles in section 6A of the Proposed RPS, in particular it will:

- support the existing urban area of Hamilton and connect well with existing and planned development and infrastructure through the strategic location of interchanges – the Ruakura Interchange alteration is specifically required for this purpose; and
- tie into existing and planned infrastructure, thereby not compromising the safe, efficient and effective operation and use of existing and planned infrastructure.
Policy 6.3 Co-ordinating Growth and Infrastructure (under Appeal)

Management of the built environment ensures:

a) The nature, timing and sequencing of new development is co-ordinated with the development, funding, implementation and operation of transport and other infrastructure, in order to:
   i) Optimise the efficient and affordable provision of both the development and the infrastructure;
   ii) Maintain or enhance the operational effectiveness, viability and safety of existing and planned infrastructure;
   iii) Protect investment in existing infrastructure; and
   iv) Ensure new development does not occur until provision for appropriate infrastructure is in place;

b) The spatial pattern of land use development, as it is likely to develop over at least a 30-year period, is understood sufficiently to inform reviews of the Regional Land Transport Strategy. As a minimum, this will require the development and maintenance of growth strategies where strong population growth is anticipated;

c) The efficient and effective functioning of infrastructure, including transport corridors, is maintained, and the ability to maintain and upgrade that infrastructure is retained; and

d) A co-ordinated and integrated approach across regional and district boundaries and between agencies.

Assessment

The Agency is working closely with the WDC, HCC and TGH in order to ensure the appropriate coordination with development of the surrounding local road network and the Ruakura Development. This will provide the opportunity to optimise the efficient and affordable provision of future infrastructure.

The Ruakura Interchange alteration is necessary to achieve the policy above, in that it represents a co-ordinated and integrated approach to infrastructure and land use development.

Policy 6.6 Significant infrastructure and energy resources (under Appeal)

a) Management of the built environment ensures that the effectiveness and efficiency of existing and planned regionally significant infrastructure is protected.

b) Regard is given to the benefits that can be gained from the development and use of regionally significant infrastructure and energy resources, recognising and providing for the particular benefits of renewable electricity generation.

Assessment

The Project as a whole (including the Ruakura Interchange alteration) is considered to result in regional and national benefits. Protection of the areas required as alterations to the designation will ensure that the effectiveness and efficiency of the planned Expressway is protected.

Overall, the proposed alteration is considered to be consistent with the provisions of the Proposed RPS.
7.5.3  Waikato Regional Plan

Section 171(1)(a)(iv) of the RMA requires consideration of any relevant provisions of “a plan or proposed plan.”

The Waikato Regional Plan (WRP) became operative on 30 August 2007, except those parts of the plan subject to Proposed Variation Numbers 2 (Geothermal Module), 5 (Lake Taupo Catchment), 6 (Water Allocation) and 7 (Minor Variation and Geothermal Maps). The WRP is intended to provide direction regarding the use, development, and protection of natural and physical resources in the Waikato Region. It gives effect to the Operative and Proposed RPS and focuses on WRC’s statutory functions under the RMA. The WRP contains modules covering Matters of Significance to Maori, Water, River and Lake Beds, Land and Soil, Air, and Geothermal Resources.

Assessment

Stormwater discharge and drain diversion resource consents will be required from the WRC. These applications will be lodged shortly.

7.6 Plans and Proposed Plans

7.6.1  Waikato District Plan (Operative April 2013)

The Waikato District Plan promotes the sustainable management of natural and physical resources in the Waikato District, primarily by managing the effects of land use on the environment.

The eastern portion of the proposed Ruakura Interchange alteration falls within the WDC’s jurisdiction, and is within the Rural Zone.

The following objectives and policies are relevant to the alteration:

Natural Resources

Objective 4.2.1 Physical, chemical and biological properties necessary for maintaining the life supporting capacity and productive use of the soil, especially high quality soil, are retained.

Assessment

The location of the proposed alteration is largely a product of the existing designation. Whilst the proposal will result in some additional loss of high quality soils, this loss is considered minor in the context of the existing designation.

Natural Hazards

Objective 5.2.1 Risks from natural hazards to health, safety and property, resulting from use, development or protection of land, are minimised.

Policy 5.2.5 Development should minimise impervious surfaces, provide adequate stormwater drainage, and mitigate the off-site effects of stormwater drained from the site.
Assessment

The proposed alteration will result in some increase to the area of impervious surface – e.g. through additional ramps at the interchange and roading upgrades. However, adequate stormwater drainage is provided through the comprehensive stormwater management strategy for the Hamilton Section of the Waikato Expressway. It has been demonstrated that adequate stormwater management for the relocation of Ruakura Road can be provided for and any consents required to give effect to this will be applied for in due course.

Land Transport Network

Objective 8.2.1 An integrated, safe, responsive and sustainable land transport network is maintained, improved and protected.

Policy 8.2.2 Design, construction and operation of roads should be consistent with their function in the road hierarchy.

Policy 8.4.1 Land transport networks are provided, while not compromising the qualities and character of surrounding environments.

Policy 8.4.2 Road and rail maintenance, construction and operation should minimise adverse effects on people, communities and the environment by managing:

(a) discharge of stormwater
(b) effects of contamination, including discharge of stock effluent
(c) disturbance to natural landforms, soil resources, indigenous vegetation and habitats, and cultural and heritage sites
(d) severance of property and communities
(e) road surface noise
(f) connections between communities
(g) glare and light spill from street lighting.

Assessment

The Hamilton Section of the Waikato Expressway represents an improvement to the land transport network, and the alteration for the Ruakura Interchange enables an improvement to the planned network that will integrate with future land use. The design, construction and operation of the Expressway (including this alteration), will be consistent with its status as a Road of National Significance. The entire Hamilton Section will be constructed and operated in such a way as to not compromise the qualities and character of surrounding environments, through measures such as landscaping, stormwater management, and the remediation and management of contaminated sites crossed by the project. Conditions based on those recently approved for other alterations to the Hamilton Section will be applied to this alteration, and provide controls to manage effects.

Contaminated Land

Objective 9.2.1 Human health or the environment is not harmed by the use or development of contaminated land.
Policy 9.2.4 Remediation of contaminated land should not pose a more significant risk to human health or the environment than if remediation had not occurred.

Policy 9.2.5 Material removed from contaminated land should be disposed of in a manner that avoids further adverse effects on human health or on the environment.

Policy 9.2.7 Development or use of land known to have been occupied by a potentially contaminating activity should not occur until any risk to human health or the environment has been investigated.

Assessment

Where the proposal crosses contaminated land, contaminated soils will either need to be removed, or capped and buried. Specific management and mitigation measures and any subsequent consenting requirements will be addressed at a later date once the proposed alignment is confirmed, and consents under the NES will be sought where required. Subject to the recommended controls, the construction of the road is not expected to result in harm to human health or the environment, and in some cases, locating, characterising and removing contaminated soil may have an environmental benefit.

Social, cultural and economic wellbeing

Objective 11.2.1 Towns, villages, neighbourhoods and localities have social coherence and a sense of place.

Policy 11.2.6 Activities should avoid breaking up community and neighbourhood coherence, having particular regard to the cumulative effects of activities.

Objective 11.4.1 Cultural practices and beliefs of tangata whenua are respected.

Policy 11.4.2 Subdivision, use and development should not compromise the cultural and spiritual significance of areas, including waahi tapu, urupa, maunga and other landforms, mahinga kai, and indigenous flora and fauna.

Assessment

The proposal includes the stopping of Ruakura Road either side of the Expressway and its relocation to coincide with the Ruakura Interchange. Whilst some people may be inconvenienced by the resulting detour of Ruakura Road, the changes will not result in the severance of communities or adversely affect neighbourhood coherence.

The Project has recognised the relationship of Tangata Whenua with the environment, through consultation with the TWWG, mandated on behalf of the local hapu. Matters of relevance to Tangata Whenua have been taken into account during the development of the overall project.

Amenity Values

Objective 13.2.1 Adverse effects of activities on amenity values are managed so that the qualities and character of the surrounding environment are not unreasonably compromised.
Policy 13.2.2 Adverse effects associated with lighting, litter, electromagnetic radiation, vermin, traffic, spray drift, and noise should be contained within the site where they are generated.

Policy 13.2.3 Adverse effects associated with offensive or objectionable dust, smoke and odour should be contained within the site where they are generated.

Policy 13.2.4 Adverse effects that cannot be contained on the site where they are generated must be remedied or mitigated.

Policy 13.2.5 Amenity values, health and safety should be protected from adverse traffic effects including:
(a) noise, vibration, dust, lighting and glare
(b) vehicle emissions
(c) accelerated or contaminated stormwater runoff
(d) visual effects of parking and loading areas
(e) traffic safety and congestion.

Assessment

Effects of the proposed alteration with respect to changes in noise, air quality and vibration have been addressed in section 4, and comprehensive specialist reports on these matters are included in Volume 2 of this NOR. It is concluded that the effects relating to noise, air quality and vibration will be no more than minor, subject to mitigation measures being implemented where necessary. Visual mitigation will be provided in accordance with the existing conditions on the designation relating to these matters.

Overall, the proposal is considered to be consistent with the Waikato District Plan.

7.6.2 Hamilton City Operative District Plan (July 2012)

The Hamilton City Operative District Plan (Operative District Plan) provides a framework of resource management policy and implementation methods to manage the effects of the use, development or protection of land and associated natural and physical resources in the city.

The Operative District Plan is not relevant to the Ruakura Interchange alteration, with the exception of the relatively small areas of Silverdale Road and Ruakura Road (that the designation boundary will encompass) which are located within the jurisdiction of Hamilton City, as shown in the Operative District Plan. The balance of the alteration is located either within the Waikato District Council jurisdiction, or Hamilton City as provided for by the PDP. Technically, these areas located within Hamilton City as per the Operative District Plan comprise a new designation, rather than being an alteration. However, this has no bearing on the assessment undertaken and therefore the technical distinction is not further referred to within this application.

For clarity, the notice of requirement is to insert the altered designation into the Hamilton Proposed District Plan. No changes are required to the Operative District Plan.

7.6.3 Hamilton City Proposed District Plan

The Hamilton City Proposed District Plan (Proposed District Plan) was notified in December 2012. The Proposed District Plan sets the rules for future city development and defines how and where the
city grows and how its natural and physical resources are managed. The Proposed District Plan includes the Ruakura Structure Plan.

Decisions on a number of chapters of the Proposed District Plan have been released (following hearings), however decisions on the Ruakura Structure Plan have been deferred due to the Ruakura PPC EPA process.

The Proposed District Plan is relevant to the proposed alteration, as the area of the alteration to the west of the existing designation is within the Ruakura Structure Plan area. As noted, decisions on this area have been deferred, and HCC have indicated that the Structure Plan will be amended to align with the PPC. Therefore, no assessment against the rules of the Structure Plan (as notified in the PDP) has been undertaken.

7.6.4 Ruakura Private Plan Change

TGH have sought a PPC for what is known as the Ruakura Development, through the Environmental Protection Authority (EPA). The PPC affects some, but not all, of the land subject to the RSP. On 31 July 2013, a ministerial direction was released, referring the PPC request to a Board of Inquiry (BOI) which was held over a number of weeks during May/June 2014. On 5 August 2014, the BOI issued its draft decision approving the PPC, subject to a number of amendments to the proposed objectives, policies and rules, as they would apply to the Ruakura Development. Comments on the draft decision close during the week commencing 1 September 2014, and a final decision is due on 11 September 2014.

The following objectives and policies are relevant to the alteration:

**Objective: 25H.4.SF.2**
Urban development takes place within areas identified for this purpose in a manner which uses land and infrastructure most efficiently.

**Policy: 25H.4.SF.2a**
Development shall occur in locations that are consistent with the growth management policies of Future Proof, the Waikato Regional Policy Statement, and the Hamilton Urban Growth Strategy.

**Policy 25H.4.SF.2b**
Any development that is within an identified growth area is to be undertaken in accordance with Figures 25H(1), 25H(2), 25H(3), 25H(4) and 25H(x).

**Assessment**
The Ruakura Interchange will provide a direct link from the Inland Port, Logistics and Industrial Zones to the Hamilton Section of the Waikato Expressway. The interchange will assist in the effective and efficient roading network within the Ruakura Development. The inland port, industrial and logistical areas will create heavy vehicle movements. Traffic will be able to use the proposed Ruakura Interchange to access the Waikato Expressway rather than using local roads and having to travel further to access the Waikato Expressway, which could potentially cause adverse effects on the local roading network. This alteration will support the planned activities of the Ruakura Development, which is generally consistent with policies and strategies including Future Proof, Waikato Regional Policy Statement and the Hamilton Urban Growth Strategy.

**Objective 25H.4.SF.7**
Resource management priorities are developed in partnership with Waikato-Tainui.
Policy 25H.4.SF.7b
Development shall consider effects on the unique relationship, values, aspirations, roles and responsibilities Waikato-Tainui have with the area.

Policy 25H.4.SF.7c
As part of the development process, decisions on land use, subdivision and development shall include ongoing consultation and collaboration with Waikato-Tainui where appropriate.

Assessment
The Hamilton Section of the Waikato Expressway project has recognised the relationship of Tangata Whenua with the environment, through consultation with the TWWG, mandated on behalf of the local hapu. Matters of relevance to Tangata Whenua have been taken into account during the development of this entire project.

The TWWG (through its connection with TGH) is very aware of the Ruakura Interchange and have supported its inclusion as part of the Expressway throughout the period of consultation. This is evidenced in the Position Statement prepared by the TWWG in relation to the project, which is provided as Appendix E.

Consultation with the TWWG is on-going, including a recent meeting held 3 July 2014. It is expected that consultation will continue, and this is also underpinned by the existing consent and designation conditions which require the preparation of a Waikato Tainui Mitigation Plan (WTMP).

Objective 25H.4.SF.8
Protect and enhance natural features, ecosystems and indigenous biodiversity.

Policy 25H.4.SF.8a
Land use and development protects natural features and ecosystems and promote positive outcomes for indigenous biodiversity in the Waikato Region.

Assessment
The landscape within the proposed alteration to the designation is an intensively farmed, modified landscape with minimal natural features and ecosystems. However, black mudfish and longfin eel habitat will be lost through installation of culverts, which has the potential to cause a more than minor effect. Subject to the mitigation measures proposed, including riparian planting of approximately 412m² of roadside drain (twice the area lost), it is concluded that the biodiversity affected by the project will be protected.

Objective 25H.4.SF.9
Land use and development is integrated with the provision of infrastructure (including transport, Three Waters services and open space).

Policy 25H.4.SF.9e
Rail, cycle, pedestrian, passenger transport and motorised vehicle networks shall be well connected and integrated across and beyond the City.

Assessment
The purpose of the Ruakura Interchange and other associated roading is to create a more effective and connected road network for access to the Waikato Expressway from the Ruakura Development. The Ruakura Interchange is required in the successful operation of the port and associated activities.
Objective 25H.4.2
New urban development within the Ruakura Schedule Area is serviced and integrated with the existing and future infrastructure network (including roads and Three Waters) to manage impacts on the network and manage the impacts of infrastructure on new urban development.

Policy 25H.4.2a
The use of land for urban development shall not be allowed unless appropriate infrastructure is provided.

Policy 25H.4.2b
New development shall be adequately serviced Three Waters and transport infrastructure.

Assessment
The purpose of Ruakura Interchange is to create a more effective, efficient and connected road network for access to the Waikato Expressway from the Ruakura Development. The Ruakura Development (PPC) has provided for these activities and the Ruakura Interchange is required in response.

Objective 25H.4.3
Effective and integrated management of Three Waters so as to sustainably manage the impact of development on the City’s natural and physical resources.

Policy 25H.4.3a
The impact of development on Three Waters infrastructure shall be managed by:

i. Minimising the effects of urban development on downstream receiving waters.
ii. Managing stormwater run-off from the different slopes and soil types in an integrated manner.
iv. Safeguarding and enhancing areas of indigenous vegetation, water features and habitats.
v. Maintaining stormwater discharge from the catchment to at or below pre-development levels.
x. Ensuring consistency with any approved Integrated Catchment Management Plan.

Assessment
The stormwater design philosophy developed for the Hamilton Section as a whole will also apply to this alteration to the designation. Drainage for the full-diamond interchange (Expressway plus ramps including the wetland) at Ruakura has already been accounted for in the consent application lodged with the WRC (Ref: 130361). Road runoff from the interchange will be collected and conveyed to a constructed wetland for treatment and attenuation to meet Agency standards. The potential adverse effects associated with stormwater are assessed as being no more than minor, subject to implementation of appropriate mitigation measures.

Objective 25H.4.4
An integrated and efficient pattern of land use and transportation so as to sustainably manage the impact of development on existing and planned transport infrastructure.

Policy 25H.4.4d
The transport network shall support efficient passenger transport and opportunities for walking and cycling.

Policy 25H.4.4e
Environmental impacts of building new transport corridor infrastructure shall be minimised.

Policy 25H.4.4f
Opportunities for improved accessibility, connectivity and efficiency within the transportation network shall be provided.

Assessment
The environmental impacts of the alteration to the designation have been accounted for and are assessed under assessment of environmental effects within section 5. It is considered appropriate that there will be appropriate conditions of consent to manage the environmental effects. The Ruakura Interchange improves accessibility, connectivity and efficiency of the transportation network by providing access to the Waikato Expressway from heavy traffic vehicles from the inland port, industrial and logistical zones. This interchange is required for the port operations rather than relying on local roads to accommodate heavy vehicle movements. The Ruakura Interchange assists in the planned activities within the Ruakura area that will integrate with future land use.

Objective 25H.5.2.1
Logistics and Inland Port land uses establish and operate in an efficient and effective manner.

Policy 25H.5.2.1a
Logistics, freight-handling services and supportive activities and infrastructure shall be provided for subject to the land allocation set out in Table 25H(1), and the provision of required infrastructure, including roading and Three Waters.

Assessment
In order for the logistics, industrial and inland port zones to operate in an efficient and effective manner, the Ruakura Interchange is required for access onto the Waikato Expressway rather than traffic movements utilising local roads and travel further to access the Waikato Expressway which could potentially cause adverse effects on the local roading network and residents within the area. Three Waters will be accommodated within the plan change for the logistics and inland port.

7.7 Other Plans

7.7.1 Regional Land Transport Strategy 2011-2041 (RLTS)

The RLTS is a statutory document prepared under the Land Transport Management Act (LTMA). The RLTS examines the transport outcomes for the Waikato Region and sets in place a strategic plan to achieve those outcomes over a 30-year period. The strategic approach for the RLTS is strategic corridors, road safety, and managing demand and encouraging alternative modes of transport.

Assessment
The strategic corridors aspect is directly relevant to the project, as the Waikato Expressway is identified in the strategy as the principal strategic transport project for the Waikato Region. The Project, including alterations proposed, is therefore consistent with the strategic approach of the RLTS.

7.7.2 Future Proof Growth Strategy and Implementation Plan 2009 (Future Proof)

Future Proof is a 50 year growth strategy for the Hamilton, Waikato, and Waipa sub-region. The strategy focuses on managing growth within the sub-region, and creating more compact urban areas based around Hamilton and existing rural townships and villages.
Future Proof provides a high level blueprint for development in the form of a preferred settlement pattern. Future Proof is not a statutory document, but has informed planning and decision making processes and the key principles of Future Proof have been given statutory weight in the RPS. Future Proof examines the issues associated with growth, including future urban and rural land use, natural and cultural resources, roads, and other essential infrastructure and promotes a settlement pattern aimed at managing these issues.

With respect to future growth, the Proposed RPS also sets out land use and population targets for the Waikato Region through to 2061. Version 7 of the Waikato Regional Transportation Model (WRTM v7) is based on the Proposed RPS land use and population projections. However, the Future Proof project is continuing to refine land use and population projections and update the WRTM accordingly.

Assessment

The strategy identifies the Expressway as the pre-eminent and key transport project for both the sub-region and the Waikato region. The location of the Expressway designation is identified on the Future Proof settlement pattern map, and roughly forms the boundary between the City and the District (urban and rural). The completion of the Expressway is one of the key assumptions underpinning the settlement pattern, and progressive implementation of the Expressway as the highest priority strategic transport corridor, and road of national significance, forms one of the actions to achieve the strategy.

The Future Proof strategy therefore provides the high level strategic context for development and growth within the sub-region, including the development of the Expressway corridor. The Ruakura Interchange will serve the Inland Port development proposed at Ruakura. This development is also supported by and reflected in Future Proof, as a strategic employment area for the growth of the City, and Ruakura is also recognised in Table 6-2 of the PRPS for industrial land use allocation.

7.7.3 Access Hamilton Strategy

The purpose of Access Hamilton is to meet the changing travel demands of the city by providing an affordable, safe, responsive and sustainable transport system that contributes to Hamilton’s strategic vision and achieves community outcomes in a way that is consistent with national and regional objectives.

Access Hamilton is one of Hamilton’s eight key strategies that assist the HCC to achieve its strategic objectives. It guides the city’s development and transport infrastructure planning over the next thirty years. It is a high-level integrated transport strategy that identifies the strategic transport aspirations of the city to deliver HCC objectives, and contributes to national goals and regional priorities. Access Hamilton will meet the changing travel demands of the city by providing an affordable, safe, responsive and sustainable transport system. Hamilton’s strategic objectives have a long term focus and are consistent with the objectives of the Land Transport Management Amendment Act and the NZ Transport Strategy.

In broad terms, Access Hamilton aims to:

- Support Hamilton’s economic, social, environmental and cultural well-being;
- Support the land use, sustainability and economic development objectives for a compact city with consolidation and intensification around key nodes and a vibrant city centre;
• Manage incremental change in the transport and land use system necessary to achieve Hamilton’s strategic objectives; and

• Position infrastructure and land development to meet the city’s long term needs.

To contribute to Hamilton’s strategic vision, Access Hamilton must address transport challenges over the next 30 years that relate to existing and foreseeable problems, and their exacerbation due to city growth, demography, technology, employment patterns and the wider economy.

Assessment

The Hamilton Section of the Waikato Expressway is recognised in the Access Hamilton Strategy as a Major Arterial Road. The Strategy also recognises the proposed future development at Ruakura and therefore the alteration will assist in meeting the purpose of the Access Hamilton Strategy as it relates to providing a safe, responsive, and sustainable transport system.

7.8 Part 2

7.8.1 Section 8 – Treaty of Waitangi

Section 8 of the RMA requires those exercising powers or functions under the RMA to take into account the principles of the Treaty of Waitangi as follows:

“In achieving the purpose of this Act, all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resources, shall take into account the principles of the Treaty of Waitangi (Te Tiriti o Waitangi).”

Assessment

The Agency has facilitated Tangata Whenua’s participation in the consultation process to enable the latter to contribute fully to the investigation and assessment of the overall project and thereby enable them to take steps to protect their interests. Furthermore, the Agency’s consultation with the commercial arm of Waikato Tainui (TGH) has ensured that recognition is provided to the iwi’s economic and development interests. The Treaty signifies a partnership and requires the Crown and Maori partners to act toward each other reasonably and with good faith. In order for a Treaty partner to act in good faith, fairly and reasonably towards the other, it is obliged to make informed decisions. NZTA has consulted with the Tangata Whenua about the effects of the alteration on the latter’s interests and considers that it has sufficient information to make informed decisions about the overall project in terms of its impacts on Tangata Whenua. Therefore, the proposed alteration is in accordance with the purpose of section 8 of the RMA.

7.8.2 Section 7 – Other Matters

Section 7 of the RMA lists certain matters to which particular regard is to be had in making resource management decisions. Section 7 provides:

“In achieving the purpose of this Act, all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resources, shall have particular regard to—

(a) Kaitiakitanga:

(b) The efficient use and development of natural and physical resources:
(c) The maintenance and enhancement of amenity values:

(d) Intrinsic values of ecosystems

(i) the effects of climate change.”

Assessment

The following matters are considered relevant to this alteration and have been provided for as described:

Section 7(a) - Kaitiakitanga through the extensive consultation undertaken with Tangata Whenua during development of the Hamilton Section of the Waikato Expressway.

Section 7(b) - The efficient use and development of the State highway and local road networks through improvements to connections with local road networks and with planned land use, including the Ruakura development.

Section 7(c) - The maintenance and enhancement of amenity values and the quality of the environment by applying conditions which address matters such as noise, vibration, dust and landscaping.

Section 7(d) – The intrinsic values of ecosystems, by recognising habitat for black mudfish and enhancing their habitat to offset the effects of the Expressway.

Section 7(i) - The effects of climate change by providing capacity for increased rainfall and associated management of stormwater runoff from the proposal.

7.8.3 Section 6 – Matters of National Importance

Section 6 of the RMA sets out matters of national importance, which shall be recognised and provided for as follows:

“In achieving the purpose of this Act, all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resources, shall recognise and provide for the following matters of national importance:

(c) The protection of significant indigenous vegetation, and significant habitats of indigenous fauna

(e) The relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga

Assessment

With regard to Section 6(c), effects on indigenous biodiversity have been considered in the ecology assessment report. The report identifies that black mudfish and longfin eel habitat will be lost through installation of culverts, which has the potential to cause a more than minor effect. However, subject to the mitigation measures proposed, including riparian planting of approximately 412m² of roadside drain (twice the area lost), it is concluded that the habitat of these fauna will be protected.

With regard to Section 6(e), the extensive consultation undertaken with Tangata Whenua during development of the Hamilton Section of the Waikato Expressway has recognised and provided for the relationship of Maori and their cultures and traditions with their ancestral lands, and has ensured
that any values identified are avoided or protected as appropriate. Throughout this process Tangata Whenua have demonstrated their support for the interchange.

7.8.4 Section 5 – Purpose of the RMA

The purpose of the RMA is to promote the sustainable management of natural and physical resources. Sustainable management is defined in section 5(2) as:

“Managing the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural well-being and for their health and safety while—

(a) Sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations; and

(b) Safeguarding the life-supporting capacity of air, water, soil, and ecosystems; and

(c) Avoiding, remedying, or mitigating any adverse effects of activities on the environment.”

Assessment

The proposed alteration will allow the construction of an interchange and associated connections at Ruakura, providing an efficient connection with the Ruakura Development (which has been deemed to be a project of national significance through the EPA process). This alteration is considered to represent the use and development of natural and physical resources in a way which enables people and communities to provide for their social and economic wellbeing. At the same time, the proposal incorporates measures to avoid, remedy or mitigate adverse effects to ensure that resources are sustained and the life-supporting capacity of air, water, soils and ecosystems are safeguarded.
8 Conclusion

The Agency has prepared this NOR to alter the designation for the Hamilton Section in order to accommodate an interchange at Ruakura, and relocate Ruakura Road. The alteration is required in response to the Ruakura Development by Tainui Group Holdings as described in this report.

The Agency is a Crown entity, and its objective pursuant to section 94 of the Land Transport Management Act is to contribute to an integrated, safe, responsive, affordable and sustainable land transport system. The Waikato Expressway is one of the seven RoNS, which are considered by the Government to be the country’s most important transport routes. The Ruakura Interchange will be an integral component of the overall Expressway.

This report has assessed the potential environmental effects associated with the alteration to designation as required by s171(1) RMA. It has been demonstrated that the effects on the environment will be no more than minor, provided that mitigation measures (conditions) are adopted as recommended in Appendix A. These conditions are based on the conditions accepted for the alterations to the same designations, dated July 2014. These conditions have only been modified where necessary to address matters unique to this alteration. Other mitigation measures (particularly those relating to ecology and stormwater) will be better addressed through the WRC consents, which will be lodged shortly, and assessed in parallel with this NOR application.

In addition, the report has identified that the NOR is consistent with the relevant provisions of National Policy Statements, National Environment Standards, the Operative and Proposed Waikato Regional Policy Statements, Waikato Regional Plan, Waikato District Plan, and the Operative and Proposed Hamilton City Plans.

As the Agency does not have an interest in the land sufficient for undertaking the work, it has been demonstrated that adequate consideration has been given to alternatives (as required by s171(1)(b) RMA). In addition, the report identifies that the designation is reasonably necessary for achieving the objectives of the Agency for which the designation is sought (s171(1)(c) RMA).

The Agency has been involved in consultation with the public and key stakeholders regarding the Hamilton Section and proposed Ruakura Interchange for over three years, and that consultation is on-going. To date, that consultation has assisted the Agency in shaping its proposal and in its consideration of alternatives.

This assessment has demonstrated that the NOR upholds the sustainable management purpose of the RMA, adequately provides for Part 2 matters, and is consistent with the relevant policy statements and plans.