

# **Hastings District Council**

Whakatu Arterial Link Social Impact Assessment

June 2014

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# 1. Executive Summary

### 1.1 Overview

The Whakatu Arterial Link Project ("WAL") provides a strategic link between State Highway 2 and Pakowhai Road. The Project has been identified in the Hawkes Bay Regional Land Transport Strategy (2012 - 2042) short term programme.

To refine and develop route options based on a wider appreciation of values and impacts, an Enquiry by Design (EBD) process was initiated by the Hastings District Council (HDC). The EBD process was a collaborative, community driven design process to explore and test different alignment, design and development ideas and options based on a comprehensive understanding of local issues, constraints and opportunities.

This Social Impact Assessment (SIA) has built on the issues identified in the EBD process and identifies further social impacts that need to be considered as part of the consenting of the project.

## **1.2 Potential Effects**

The actual or potential positive social effects are generally felt at the regional and sub-regional level, and are related to the economic and employment growth that is anticipated to arise from the unlocking of the development potential of the Whakatu Industrial Area. These effects are anticipated to be significant.

These effects are offset, to a small degree, at the local level by losses in economic terms through reduced agricultural and horticultural output.

There are also likely to be benefits in the local community and at the sub-regional area associated with the re-direction of heavy commercial vehicle traffic off SH2 and onto the Hawke's Bay Expressway. This has benefits for local community and recreational facilities and for communities such as Whakatu and Clive.

The balance of the actual or potential adverse social effects is likely to be experienced at the local level. During the construction phase these are likely to be:

- Temporary effects on accessibility and connectivity;
- Temporary effects on public transport services and on modal choice;
- Effects on adjacent properties to the WAL from noise and discharges to air;
- Effects on personal safety and the adoption of averting behaviours in response to perceptions of risk; and
- Effects associated with uncertainty and construction timing, and direct effects on private property, business operations and viability.

During the operational phase the actual or potential adverse social effects are also likely to be experienced at the local level. These include;

- Longer term effects on accessibility and connectivity (which are expected to diminish over time);
- Effects on community cohesion related to the degree to which the WAL will result in potential dislocation of families and businesses, and induced relocation as businesses or families seek to avoid the cumulative effects of the WAL;

- Effects on personal safety and a sense of security for activities lying immediately adjacent to WAL; and
- Effects on public safety and risk associated with the redirection of traffic via the WAL, and as a result of an increase in growth at Whakatu Industrial Park, particularly risks to those living within Whakatu itself and adjacent to Pakowhai Road.

### 1.3 Assessments Undertaken

The assessment process has consisted of:

- Profiling of communities within the study area to establish an existing social baseline.
- Impact identification, which included review of the outcomes of the community engagement and consultation process from a social perspective and the social effects identified through consultation;
- Effect assessment, which included evaluation of the positive and adverse social effects from the Project, based on the likelihood, consequence and magnitude of effects and applying a rating scale to determine the significance of each effect;
- Mitigation and management, which included identification of potential avoidance, remediation or mitigation options in relation to adverse social effects; and
- Identification of any future work required from a social perspective, to address issues of risk or uncertainty during the construction and operational phases.

## 1.4 Result of the Assessment

At the regional and sub-regional level the overall actual and potential social effects of the WAL are moderately to significantly positive based on:

- Anticipated effects on regional and sub-regional economic and employment growth;
- Anticipated effects on the redistribution of heavy commercial vehicle traffic from SH2 to the Hawkes' Bay Expressway, and general improvements in connectivity and accessibility at the regional and sub-regional level.

At the local community level, the positive social effects are expected to be moderately to significantly positive primarily due to the same economic and employment growth factors, offset to a small degree by losses in horticultural and agricultural output in areas directly affected by the alignment of the WAL.

The temporary effects at the local community level identified above are expected to be moderately to minor adverse effects that can be mitigated by the use of construction traffic and environmental management plans, and by a robust on-going consultation and engagement process during construction.

The operational phase effects at the local community level identified above are likely to range for moderately positive to minor adverse, depending on the specific effect. For example, it is anticipated that the community will gradually adapt to the new road network, and the benefits that it brings in terms of connectivity, reduction in heavy commercial vehicle movements through key communities and the potential to enhance community facilities and the natural and physical environment immediately adjacent to the WAL and the Karamu Stream.

There may be some minor residual adverse effects felt by those residents and properties immediately adjacent to the WAL who will need to adapt over time to the proximity of the WAL, and to traffic noise and the gradual mitigation over time of visual effects as the mitigation measures, such as planting, become established. There will also be the short term effects

during the operational phase of adjusting orcharding operations to new orchard and infrastructure layouts.

There is also likely to be residual concern within the Whakatu community about the longer term consequences of growth on their community, and the need to look at further network improvements to provide a higher level of public safety as growth occurs.

### 1.5 Suggested approach for the identified effects

During the construction phase, the use of construction traffic and environmental management plans is expected to adequately mitigate the adverse social effects of the WAL. This will need to be augmented by a robust community consultation and engagement process, to remove uncertainty and to provide an avenue for the community to participate in the monitoring of the construction process and its effects on them.

During the operational phase, the community will adapt to the new roading layout. It will be important to monitor the effects of the WAL in the first three to five years of the operational phase, to verify the outcomes in terms of the anticipated benefits, and to highlight any wider community effects that justify an adaptive approach. It is noted that the Council is reviewing the Whakatu Community Plan and as part of that review and future reviews additional measures such as local area traffic management plans could be considered.

# 2. Introduction

# 2.1 Purpose of this report

This report forms part of a suite of technical reports prepared for the Hastings District Council Whakatu Arterial Link (WAL) Project. Its purpose is to inform the Assessment of Environmental Effects (AEE) and to support the resource consent applications and Notices of Requirement for the Project.

# 2.2 Scope and limitations

The purpose of the Social Impact Assessment (SIA) is to examine and assess the social effects of the WAL; to inform the Notice of Requirement (NoR).

The assessment includes:

- An assessment framework based on national and international best practice and referenced against recognised international and national principles and standards;
- Identification of a social study area and development of a demographic profile to provide an understanding of the existing social characteristics and conditions of the study area (social baseline);
- A review of the effects identified by other relevant specialist reports included in the AEE, and assessment of their social component;
- A review of feedback from the consultation and engagement process to ensure that relevant social issues and concerns identified by the community have been considered;
- Identification of social effects against the SIA framework at both a regional and local level; and
- Identification and recommendation of appropriate mitigation, avoidance or remediation and management strategies to minimise impacts and maximise benefits through appropriate design process and through appropriate conditions of consent.

## 2.3 Assumptions and exclusions

Other technical assessments have separately considered economic, noise, air quality, visual amenity, and cultural effects, along with specialist technical reports on the geotechnical engineering, engineering design, traffic and transportation effects, ecological effects (freshwater and terrestrial), and erosion and sediment control. The outcomes and recommendations of these reports are relied upon.

# 3. Description of the Project

## 3.1 Overview

The WAL will run from a new roundabout intersection on State Highway (SH2) and Napier Road and run north-westwards following roughly the line of the Karamu Stream which it will cross to a new roundabout with Pakowhai Road at its northern end. The route is shown in Figure 1 below.

The land traversed by the WAL is predominantly flat horticultural and industrial land. There are a few residential dwellings in the vicinity of the SH2 and Napier Road intersection at the south eastern end of the project.

The WAL will be a new two lane carriageway approximately 3,500 metres in length and with a total construction foot print width of between 30 metres and 80 metres at the approaches to intersections. The road will be predominantly constructed offline.<sup>1</sup>

### Figure 1 Route Alignment



# 3.2 Intersections

The WAL will intersect with Whakatu Road at a roundabout intersection. This will provide access from the WAL along Whakatu Road to the industrial areas of Whakatu.

At the south-eastern end of the WAL, Pilcher Road will be diverted from its current intersection with State Highway 2 to a new combined roundabout intersection with the WAL, SH 2 and Napier Road.

At the north-western end, the WAL intersects with Pakowhai Road at a new roundabout adjacent to the Pakowhai Regional Park.

<sup>&</sup>lt;sup>1</sup> Whakatu Arterial Project Description (GHD 2014a).

# 3.3 Frontage Access

The Apollo Pac factory is currently served by access off Whakatu Road. A new access from the factory onto Whakatu Road either at the current location or elsewhere along the property boundary with Whakatu Road will be necessary.

## 3.4 Railway Crossings and Road Closures

The WAL will cross the Palmerston North to Gisborne Railway Line (PNGL) on a level crossing north-east of Ruahapia Road. In order to avoid an increase in the number of potential conflicts between road and railway vehicles, KiwiRail has stipulated that there be no increase in the number of level crossings as a result of the construction of the WAL.

As a consequence, Ruahapia Road will be closed at the railway crossing, however through traffic will be able to use the WAL which will run parallel to Ruahapia Road.

The northern end of Ruahapia Road will no longer be a through route and the opportunity has been taken to restrict traffic movements in to and out of Ruahapia Road at its intersection with Pakowhai Road to make the intersection safer. It should be noted that the Ruahapia Road/Pakowhai Road intersection has recently been identified as being in the top 100 intersection crash sites in the country.

The section of Pilcher Road joining SH2 will be closed and traffic routed along the WAL to the new combined roundabout at the intersection of SH2 and the WAL.

# 4. Methodology

## 4.1 Summary of SIA Methodology

The principal steps in the preparation of this SIA for the construction and operations phases of the WAL are as follows:

- 1. Scoping, which included:
  - Review of relevant literature and prior social impact assessments on similar roading projects to inform the development of the assessment framework;
  - Review of the WAL indicative design and location to identify local and regional communities along and adjacent to the proposed designation;
  - Development of a framework for assessing potential social effects and their scale, character and intensity; and
  - Review of the relevant policy context, including statutory and non-statutory documents.
- 2. Profiling of communities within the study area to establish an existing social baseline.
- 3. Impact identification, which included:
  - Review of the outcomes of the community engagement and consultation process from a social perspective and the social effects identified through consultation; and
  - Undertaking supplementary face to face consultation with key stakeholders specifically to inform the social assessment.
- 4. Effect assessment, which included:

- Evaluation of the positive and adverse social effects from the Project, based on the likelihood, consequence and magnitude of effects and applying a rating scale to determine the significance of each effect.
- 5. Mitigation and management, which included:
  - Identification of potential avoidance, remediation or mitigation options in relation to adverse social effects; and
  - Identification of any future work required from a social perspective, to address issues of risk or uncertainty during the construction and operational phases.

# 4.2 Approach to the SIA

### 4.2.1 Overview

The SIA framework for this project is derived from the following:

- Assessment frameworks developed or endorsed by the International Association for Impact Assessment (IAIA), relevant to major linear infrastructure projects;
- Social issues relevant to linear infrastructure projects generally and major roads in particular, identified in the literature review and previous SIA undertaken for similar projects in New Zealand;
- The statutory and non-statutory policy context for the Project; and
- Community engagement undertaken for the project to date.

### 4.2.2 IAIA Approach

In May 2003, the IAIA published a set of International Guidelines for Social Impact Assessment<sup>2</sup>. These Guidelines are intended to apply across a range of social, economic, political and environmental jurisdictions, and apply to a greater or lesser degree in different circumstances.

The Guidelines state that social impacts can be conceptualised by looking at different social elements in the following ways:

- Way of life that is how people live, work, play and interact with each other on a day to day basis;
- Their culture that is their shared beliefs, customs, values and language or dialect;
- Their community its cohesion, stability, character, services and facilities;
- Their political systems the extent to which people are able to participate in decisions that affect their lives, the level of democratisation that is taking place, and the resources provided for this purpose;
- Their environment the quality of the air and water people use, the availability and quality of the food they eat, the level of hazard or risk, dust and noise they are exposed to; the adequacy of sanitation, their physical safety, and their access to and control over resources;
- Their health and wellbeing health is a state of complete physical, mental, social and spiritual wellbeing and not merely the absence of disease or infirmity;
- Their personal and property rights particularly whether people are economically affected, or experience personal disadvantage which may include a violation of their civil liberties; and
- Their fears and aspirations their perceptions about their safety, their fears about the future of their community, and their aspirations for the future and the future of their children.

<sup>&</sup>lt;sup>2</sup> International Association for Impact Assessment (2003) *International Guidelines for Social Impact Assessment*. IAIA Special Publications Series No.2 May 2003.

#### 4.2.3 Scope of the SIA

The scope of this SIA is determined by the following considerations:

- The Project description and project phases;
- The project study area, including local and regional communities interested and adjacent to the road alignment;
- Engagement with relevant stakeholders; and
- Scoping of social effects (positive and negative) in the study area based on relevant literature review and consultation.

#### 4.2.4 Project Phases

The three Project phases are as follows:

- The planning and consenting phase;
- The construction phase; and
- The operational phase.

#### 4.2.5 Project Study Area

The Project Study area for the SIA includes the Twyford, Karamu, Whakatu and Pakowhai Census Area units (CAUs) as defined for the 2006 Census. Beyond these census area units, the social effects of the project are expected to be largely positive, primarily through the re-direction of significant volumes of heavy vehicle traffic away from the coastal route through Clive and Marine Parade, to the Hawkes Bay Expressway, and through subsequent reinforcement of the role of the Whakatu Industrial Area as the principal wet industry hub in the Hastings District.

More localised social effects analysis is confined to the area around the WAL site, and the local roading network. Changes to this network, in conjunction with the project, will have a variety of positive and adverse social effects.

The local study area is the area included within the Census Meshblocks (See Table 1 below) traversed by the proposed WAL and the designation footprint and the adjacent CAUs.

Identifiable communities potentially affected by Project are:

- Whakatu;
- Mangateretere;
- Ruahapia Road;
- Karamu; and
- Pakowhai

These communities have been identified on the basis of both direct and indirect effects associated with the Project, principally as a result of the redistribution of traffic flows, heavy vehicle movements and changes in the pattern of connectivity.

#### **Table 1: Affected Communities and Related Census Meshblocks**

Affected Community	Relevant Meshblocks (2006 census)
Whakatu (whole of Whakatu CAU)	14015700, 1405800, 1405900, 1406000, 1406101, 1406102, 1406200, 1406300, 1406400, 1406501, 1406701
Ruahapia Road (part Karamu CAU)	1471600, 1471800, 1471900
Elwood and Richmond Roads (part Karamu CAU)	147401, 1471500
Karamu (balance of CAU)	1472200. 1472100, 1472000, 1471700, 1472309, 1472041, 1472600
Pakowhai	1404200, 1404300, 1404400, 14043900, 1404000

# 4.3 Scoping of Effects Framework

The impact scoping framework developed for this project is as follows:

#### **Table 2: Assessment Framework**

IAIA Category	Effects Category		
	Accessibility, barriers and diversions		
	Connectivity and choice of mode		
Way of Life	Patterns of living and mobility		
	Changes to pedestrian and cycling		
	Changes to public transport		
	Community cohesion		
	Identified communities		
	Schools		
Community	Community facilities		
	Business activities		
	Recreational facilities		
	Historical and cultural facilities		
	Changes to wellbeing		
	Personal safety and averting behaviours		
Health and Wellbeing	Exposure to noise		
	Exposure to discharges to air		
	Public safety and risk		
	Uncertainty and construction timing		
Personal and Property Rights	Forced relocation		
	Effects on properties		
Foors and aspirations	Wider community		
i cais anu aspirations	Localised community		

Way of life considerations primarily relate to the ability of people to access their community, activities and facilities in a manner which maximises their social welfare. Maintenance of connectivity and

mobility is an important component of the ability of people to establish and maintain social networks and quality of life. Changes in the ability to access different modes of transport and the ability to engage in active transport options can affect local connectivity and mobility. In addition there may be short-term construction related effects around perceptions of traffic safety and risk, and the adoption of aversion behaviours that limit the frequency of trips to connect with wider social networks and facilities.

Community based considerations relate to the effect that a project can a have on community cohesion and the way in which people identify with a local community. Community cohesion can be affected by the loss of community members where property is required to enable the project to proceed, or where community members decide to relocate to avoid the actual or potential adverse effects of project construction and operation.

Community based effects can also be experienced where community facilities come under stress from increased demand generated by the project, both in the short-term construction phase and the long term operational phase. Community facilities may need to cope with an influx of workers and their families during construction, or during the operational phase they may need to expand or reconfigure their services to deal with the induced demand generated by greater accessibility and population and employment growth.

There may also be short-term adverse effects on community facilities associated with construction traffic, traffic noise and vibration, re-distributed traffic flows, and perceptions of difficulty of access to community facilities during the construction period.

Effects on health and well-being are generally associated with the cumulative effects of noise, vibration, exposure to air pollution and dust generation, and perceptions of safety and risk associated with project related traffic movements in both the construction and operational phases.

Effects associated with private property rights and aspirations are generally felt during the planning phase, but may also be manifested during the construction and operational phases. The primary concerns relate to effects on health due to the stress associated with uncertainty and the negotiation process with Hastings District Council, concerns about the ability to find a replacement property that fulfils the same amenity values currently associated with the property, and the need to develop new social networks if the relocation is to a site significantly removed from their current community and networks.

# 4.4 Impact Identification and Assessment

Actual and potential effects were identified through the sources listed in Section 4.5 below. These were then assessed against the SIA Framework set out in Section 4.3 above. The rating of effects was undertaken taking into account the stage of WAL at which the effect is felt, who is affected, the likelihood of occurrence, the severity of the impact, and any proposed mitigation.

The scale applied to rating each effect was:

Significant	Moderate	Minor	Neutral	Minor	Moderate	Significant
positive	positive	positive		adverse	adverse	adverse

### 4.5 Information sources and methods

The information sources for the SIA methodology, social baseline and impact identification are as follows:

- The baseline population data from 2006 Census.
- Updated baseline population data from 2013 Census.

- Research undertaken to underpin other planning studies and assessments in the local area or at the regional level such as the Heretaunga Plains Urban Development Strategy;
- The IAIA SIA principles:
- SIA's of other similar projects;
- GIS mapping and data for the project area; and
- The outcomes of the community engagement and consultation process.

# 5. Existing Social Environment

### 5.1 Overview

The analysis of the positive and adverse social effects is focused on the CAUS of Twyford, Pakowhai, Whakatu and Karamu. These all lie on the eastern side of Hastings generally between the Ngaruroro and Tukituki Rivers. The principal land uses within the relevant Census Meshblocks are related to horticultural activities, pastoral farming, viticulture, and processing industries associated with primary production.

There is a limited amount of rural residential activity, and some localised residential activity within the Whakatu township adjacent to the industrial area. The closest township other than the Hastings urban area is Clive, further to the east, and towards the coast, on SH2.

The bulk of the study area is located between Pakowhai Road and SH2. Pakowhai Road lies to the north of the study area and links Hastings and the Tomoana and Whakatu industrial areas to the Hawkes Bay Expressway. SH 2 links Havelock North and Hastings to the south-eastern and coastal side of Napier via Clive.

## 5.2 Regional Context

#### 5.2.1 Overview

As part of the Heretaunga Plains Urban Development Strategy (HPUDS), a social and economic profile was undertaken. HPUDS is based on 2006 Census data, however due to the absence of adequate 2013 Census data at this time, this sub-regional analysis is the best available information and has been relied upon. This has subsequently been updated using 2013 Census data.

### 5.2.2 Population Change

In 2006 the resident population of the Heretaunga Plains was 123,615, an increase of 4.1% over the 2001 Census figure. The estimated population in 2011 was 126,505, up 2.3% from 2006. Total resident population is anticipated to rise to approximately 131,300 by 2016, and 138,450 by 2031, and will have plateaued at around 138,500 by 2045.

It is anticipated that natural increase will be the principal driver for population growth with net inmigration being a relatively small factor.

In 2006, the 0-14 age group accounted for approximately 22% of the total population, the 15-39 age group 30%, the 40-64 age group 33% and the 65+ age group 15%. In 2013, the 0-14 age group accounted for approximately 22% of the population, the 15-39 age group 28%, the 40-64 age group 34% and the 65+ age group 17%. This shows the trend of an ageing population.

By 2045 it is projected that the respective proportions will be 18%, 26%, 29%, and 27%. The 65+ age group is therefore expected to increase by 15,000 or 68% over the period from 2015 and 2045.<sup>3</sup>

The median age for the Hawkes Bay Region as whole was 40.6 in 2013.

### 5.2.3 Employment and GDP growth

Drawing on work undertaken by Infometrics for Venture Hawke's Bay, Bevin<sup>4</sup> noted that the key industries on the Heretaunga Plains will continue to include primary production and processing,

<sup>&</sup>lt;sup>3</sup> Bevin S (2009) Heretaunga Plains Urban Development Study Phase 2 Technical Analysis: Demographic and Economic Outlook 2015-2045; Economic Solutions Ltd, Napier, October 2009 pg 6

commercial business services and the wholesale/retail trade. In addition construction, education and health services will continue to be the leading employers. Over the 2015-45 period total employment is forecast to grow by 18%.

At the present time, the largest industries on the Heretaunga Plains in GDP terms are (in order) primary production, primary commodity processing, business services and the wholesale/retail trade. Primary commodity production and processing represents 36% of total GDP. When other industry activities servicing the rural sector are taken in to account, the overall GDP contribution by the sector is 40%.

In 2009, Primary production and processing across the Hawkes Bay region as a whole accounted for 14,268 jobs.

Industry	2001 (Census) HB Region	2006 (Census) HB Region	2013 (Census) HB Region
Agriculture, Forestry and Fishing	10,194	9,693	8,685
Mining	81	87	105
Manufacturing	9,870	9,966	8,904
Electric, Gas and Water Supply	144	207	255
Construction	3,402	5,229	4,431
Wholesale Trade	3,114	3,144	2,922
Retail Trade	7,740	8,868	7,713
Accommodation, Cafes and Restaurants	2,382	2,919	2,703
Transport and Storage	2,076	2,298	2,373
Communication Services	432	507	432
Finance and Insurance	1,038	1,311	1,215
Property and Business Services	4,719	6,477	6,693
Government	1,590	1,608	1,779

#### Table 3 Employment by Industry 2001-2013

<sup>4</sup> Bevin s (2009) ibid pg 20

Administration and Defence			
Education	4,752	4,857	5,556
Health and Community Services	5,580	6,333	7,698
Cultural and Recreational Services	921	1,161	1,257
Personal and Other Services	2,253	2,883	2,883
Not Elsewhere Included	3,666	5,619	3,009
TOTAL	63,954	73,173	68,610

# 5.3 Study Area Context

Within the study area comprising the Twyford, Pakowhai, Clive, Whakatu and Karamu CAUs, the Census usually resident population in 2006 was 5,043 and the population in 2013 was 5,667.

The median age in each of the CAUs apart from Twyford tend to be below the regional median age of 40.6. Within Whakatu itself, certain meshblocks have a median age of 21, suggesting a greater proportion of younger families, and infant to school age children.

Median personal incomes across the CAUs also tend to be above the regional median total personal income of \$ 26,100,

The key statistics by CAU are shown below.

Census Area Unit	2013 Usually resident population	Median age	Median total personal income (\$)
Twyford	1,065	41	24,500
Karamu	1,404	36	27,500
Whakatu	825	34	27,200
Clive	1,764	37	29,300
Pakowhai	609	37	26,900
TOTAL	5,148		

#### Table 4 Median Age and Income 2013

In 2006 there were 2,694 people over the age of 15 normally residing within the study area in employment. Of these, 19% were engaged in the Primary sector, in agriculture, forestry or fishing. The second largest employer was manufacturing (including primary product processing) at 11.7%, followed by property and business services, the retail sector, and construction.

In 2013 there were 2,862 people over the age of 15 normally residing within the study area in employment. Of these, 15% were engaged in agriculture, forestry or fishing. The second largest employer was manufacturing (including primary product processing) at 12%.

However, by contrast when you look at employment by industry based on workplace address, it becomes clear that the study area represents a major employment destination for two key industries; agriculture (including pastoral farming, horticulture, pip fruit, and viticulture) and manufacturing (dominated by primary product processing).

In 2006, out of a total of 3,600 jobs, the study area provided 1,026 jobs in the primary sector, and 1,074 jobs in manufacturing. Of those manufacturing jobs, 1,000 were provided within the Whakatu and Twyford CAUs, essentially representing the Whakatu and Tomoana industrial hubs. The next most significant employer was the business and property sector at 240 jobs, followed by 190 in the wholesale sector, 180 in construction and 159 in transport.

In 2013, out of a total of 4,269 jobs, the study area provided 684 jobs in the primary sector, and 1,215 in manufacturing. The next most significant was the administrative and support services with 345 jobs, followed by 270 in transport, postal and warehousing, 261 in construction and 255 in the wholesale sector.

These broad social parameters have remained largely unchanged since 2006, at least in proportional terms.

# 6. Effects on Way of Life

# 6.1 Accessibility and Connectivity

At the sub-regional level the effects on accessibility are generally positive. This is primarily because the WAL provides a high quality connection from SH2 in the vicinity of the intersection with Napier Road to Pakowhai Road and the Hawke's Bay Expressway. This will enhance accessibility and connectivity for commuter and general traffic generated in Havelock and the southern side of Hastings and accessing Napier.

At the sub-regional level accessibility between the Whakatu Industrial Area and the Port of Napier is substantially enhanced, both by the WAL itself and also the programmed improvements to intersections on Pakowhai Road and the Hawke's Bay Expressway. The Whakatu Industrial Area also becomes more accessible for commuter traffic associated with employment within the industrial area. This assists with the reinforcement of agglomeration effects and economic benefits.<sup>5</sup>

At the study area level within the four affected CAUs, accessibility is enhanced by the WAL, but also constrained at specific locations particularly Ruahapia Road. The closure of the existing at grade rail crossing, segments Ruahapia Road into two sections, one accessed from Pakowhai Road via the WAL and Whakatu Road and the other from SH2. The adverse effect is limited to activities on Ruahapia Road which will now need to use the WAL or Elwood Road as alternative routes to Pakowhai Road and SH2 for the residents trips to Napier. For residents on Ruahapia Road, the closure of the crossing becomes a barrier for their motorised vehicles, depending on their particular travel patterns and trip profile.

The potential upside is the removal of the through traffic component on Ruahapia Road, although a small proportion of the former through traffic might still take advantage of the link between Elwood Road and southern section of Ruahapia Road along Otene Road. The key benefit will be the substantial removal of heavy vehicle traffic with consequent improvements in traffic safety.

On the northern section of Ruahapia Road, accessibility will now be constrained, as this section effectively becomes a no exit road accessed via Whakatu Road. Due to the limited number of houses on this part of Ruahapia Road, the effects on accessibility are expected to be relatively small.

On the southern section of Ruahapia Road, accessibility will also be constrained, as this section will not connect to the north without some minor detours over current travel patterns. Due to the limited number of houses on this part of Ruahapia Road, the effects on accessibility are expected to be relatively small. This is based on the assumption that the bulk of the trips generated by activities on this part of the road would already predominantly use the Ruahapia Road/SH 2 intersection. There may be a minor adverse effect associated with a reduction in accessibility to Ruahapia Marae from the north and east via Pakowhai Road, however this is likely to be offset by the positive effects associated with the removal of through traffic, especially Heavy Commercial Vehicles (HCV).

## 6.2 Implications for Public Transport and Modal Choice

There are also implications for public transport, specifically school bus services. These services are provided by Nimon Motors who have a depot at Whakatu immediately adjacent to the proposed WAL north of Whakatu Road.

<sup>&</sup>lt;sup>5</sup> Bevin S ibid

Route 5190.1 which services St Joseph's School in Hastings has a catchment which includes Waipatu, Ruahapia Road, Whakatu Mill Road and Lawn Road. The closure of Ruahapia Road at the rail crossing will require the redirection of the bus route along the WAL as opposed to Ruahapia Road.

Routes 5106 and 5107 service Whakatu and to a lesser extent Clive, taking students to and from Havelock North High School. Though these routes are largely unaffected, they will benefit from reduced HCV traffic along SH2.

Routes 5119.1 and 5120.1 service St Johns and Sacred Heart schools in Hastings and have a catchment that includes Napier. They also traverse SH2, Pakowhai Road and Farndon Road so may be indirectly affected by the redistribution of traffic as a result of the WAL. Positive effects will be felt through reduced HCV movements on SH2, but there may be minor adverse effects associated with increased conflict with HCV movements on Pakowhai Road in the vicinity of the Farndon Road intersection. These minor effects will be addressed however by the introduction of safer forms of intersections at Ruahapia Road/Pakowhai Road. It should be noted that the Ruahapia Road/Pakowhai Road was recently identified by the NZ Transport Agency as being in the top 100 intersection crash sites in the country.

Local community bus services are unaffected by the WAL per se, primarily because Route 11 between Hastings and Napier is an express service that utilises SH 2 via Clive, and Route 12 uses the Hawke's Bay Expressway and Pakowhai Road. There is no local bus service between Whakatu and Hastings.

For residents within the Whakatu village itself, there is virtually no change in the level of accessibility to the wider community. Trips to and from Whakatu itself are potentially safer if they involve using the WAL with the higher standard of intersection treatment. However, it is noted that one of the community concerns raised during the EBD process related to the intersection of SH 2 and Railway Road. This relates to trips associated with accessing services or facilities and employment in Clive and Napier, as opposed to Hastings.

On the whole, accessibility is unlikely to be adversely affected by the proposed changes to the local road network associated with the construction of the WAL. Modal choice is likely to remain dominated by the private car or a work vehicle. There is potential for enhancement of existing pedestrian and cycle facilities particularly adjacent to the Karamu Stream in the vicinity of the proposed alignment and promote this as a preferred cycleway.

The closure of Ruahapia Road as a result of the removal of the rail crossing is a localised barrier to movement, but will have only minor effects on accessibility and connectivity.

### 6.3 Effects on Accessibility during Construction

The construction phasing of the project is assisted by two factors;

- The ability to segment the construction between existing parts of the roading network; and
- The essentially offline nature of the construction.

For example, it will be possible to keep Ruahapia Road open for the duration of the construction phase, and the closure of the rail crossing can be delayed until the WAL is fully functional. Delay as opposed to loss of accessibility is likely to be the main factor, particularly with the construction of the large rotary intersections on Pakowhai Road and SH2. This may in some cases cause residents to adopt aversion behaviours that limit the frequency of trips to connect with wider social networks and facilities. These adverse effects are considered to be minor.

# 7. Effects on Community Cohesion

# 7.1 Overview

As noted previously, community cohesion relates to the way in which people identify with a local community. Community cohesion can be affected by the loss of community members where property is required to enable the project to proceed, or where community members decide to relocate to avoid the actual or potential adverse effects of project construction and operation. Community cohesion can also be affected by the ability or inability of people to readily access the community facilities or networks that have become integral parts of their lives in a community.

# 7.2 Potential Dislocation

In this case the adverse effects on community cohesion are likely to be related to the area around Ruahapia Road and Mangateretere, as this is where the direct adverse effects of the project on local residents will be felt.

At this stage it is not clear as to what dislocation will actually take place. The construction of the rotary intersection on SH2 in the vicinity of Napier Road and the construction of the leg of the WAL through to Whakatu Road, and the construction of the rotary intersection on Pakowhai Road will involve purchasing land with potential severance effects on existing pipfruit orchards. The realignment of Pilcher Road will have similar effects on cropping land on the opposite side of SH 2.

Wilton (2014)<sup>6</sup> has reported on the effects of the WAL on adjacent horticultural properties. Amongst the effects identified, the most important from a community cohesion perspective are those that relate to loss of stand-alone viability for smaller properties, property access and workability, and property security during and after construction. Where viability becomes an issue, community cohesion can be affected unless the owners or occupiers involved can find an alternative orchard property or employment within the same community.

# 7.3 Relocation to Avoid Cumulative Effects

Relocation as a result of cumulative effects is a potential response for some landowners or occupiers in close proximity to the rotary intersection on SH 2 at Napier Road and Pilcher Road. The Assessment of Noise Effects (Hegley 2014)<sup>7</sup> indicates that a combination of the redistribution of traffic flows and traffic composition, mitigation options such as alternative road surfacing will result in a noise environment that meets the relevant noise standards.

The Landscape and Visual Assessment (Isthmus 2014)<sup>8</sup> notes that effects for existing residents will vary. Some dwellings are directly affected by the works (requiring removal), while the visual amenity of others may be affected – these are mainly close to SH2/Napier Road. These effects on visual amenity are considered to be high for the directly affected properties.

These effects diminish rapidly with distance from the key elements of the alignment to the extent that the alignment is expected to be screened from view either by existing vegetation and shelterbelts, or by large industrial buildings. In addition, the Landscape and Visual Assessment recommends landscaping mitigation.

<sup>&</sup>lt;sup>6</sup> Wilton L (2014) Whakatu Arterial Link: Impact on Adjacent Horticultural Properties; AgFirst Consultants HB Ltd, 2014

<sup>&</sup>lt;sup>7</sup> Hegley R (2014) Whakatu Arterial Project: Assessment of Noise Effects; Hegley Acoustic Consultants, Auckland, 2014

<sup>&</sup>lt;sup>8</sup> Isthmus (2014) Whakatu Arterial Link: Landscape and Visual Assessment, Isthmus Ltd, Auckland 2014

There is also the potential for temporary dislocation during the construction phase. This will depend on the duration of the construction phase (estimated at 18 - 24 months) and the timing and phasing of construction. For the most directly affected properties, this will also be related to the lead in time that may be required for undertaking preparatory work to recover tree stocks, realign headworks and reorganise infrastructure. All of these factors will be disruptive in terms of normal orchard operations, and can result in social effects associated with uncertainty and stress.. These effects can be mitigated by on-going engagement and consultation with affected landowners in the lead up to the construction phase and while construction activity is underway. It is likely that this relationship will need to be maintained for a period after construction is completed and the operational phase begins.

# 7.4 Community cohesion in relation to educational and community facilities

Community cohesion in smaller rural communities is often related to the community's relationship to its local school. In this case Te Kura O Mangateretere (Mangateretere School) operates as a total immersion primary school for the local Maori community, and is affiliated to four local marae; Waipatu, Ruahapia, Matahiwi and Kohupatiki. Other school children travel to primary, intermediate and high schools in Pakowhai, Clive, Havelock North, Hastings and Napier.

For the local Maori community, community cohesion will be enhanced by maintaining accessibility to Mangateretere School, and by improvements to access arrangements in the vicinity of the school that remove traffic conflicts and make the road environment in the vicinity of the school safer.

For the balance of the community, it appears that most of the community facilities and services that they draw upon are located either in Clive, Hastings or Havelock North. Therefore, the principal effect on community cohesion for these families or individuals will be the degree to which their accessibility and connectivity is impaired. As discussed previously, the effects of the project in this regard are expected to be minor.

# 7.5 Effects on Business Activities

Effects on business activities will be felt at the regional, sub-regional and the local level. These effects have implications for business continuity, employment, seasonal factors and potential profitability.

In the broader region (Hawkes Bay) or sub-region (Heretaunga Plains) the effects on businesses and community cohesion are anticipated to be largely positive. The Economic Effects Assessment (Bevin 2014)<sup>9</sup> states that "*The construction of the new road is estimated to increase overall economic activity/GDP in Hastings district by* \$13.7 *million and in the full Hawkes Bay region by* \$17.1 *million, taking into account both direct and flow-on spending impacts. Ongoing maintenance and renewal work on the new road over a forecast 30-year period could potentially add* \$1.64 *million to the Hastings economy and* \$2.07 *million to the regional economy, depending on the extent to which Council funding for the work is sourced from existing budgets or from new budgetary allocations*" (The above figures are in current dollar terms).

"Assuming 5% annual average GDP growth (compared with the long-term historical growth rate of 4% per annum) in the Whakatu area over the above forecast period and 40% of this GDP growth coming from industrial activity new to the Hawkes Bay region, the total Value Added/GDP gain (including flow-on/multiplied impacts) with the new road over 30 years is

<sup>9</sup> Bevin S ibid

estimated at \$565 million (annual average of approximately \$19 million) for Hastings district and \$748 million (annual average GDP gain of approximately \$25 million) for the wider Hawkes Bay region. This excludes the possible development in the medium to longer-term of a specialized freight distribution centre in the Whakatu area, which will add to the new road's overall economic impact."

The report also notes that other potential economic benefits of the project include increased transport-operating efficiencies for local businesses, increased overall business appeal of the Whakatu area, further business development and utilisation of the available land resource in the area, strengthening of the export industry base in the area with flow-on benefits to the Port of Napier operations and tourism advantages in respect of reduced commercial vehicle use of Napier's Marine Parade tourism precinct.

There is the localised downside of the loss of agricultural and horticultural production from the land required to construct the WAL, and land lost to industrial and commercial activity. The Economic Effects Assessment states that these losses are in the vicinity of \$1.40m per annum. At the regional or sub-regional level, these effects are not socially significant, however to the extent that they impact on individual businesses and livelihoods, they do have localised social impacts. There is limited ability to mitigate the adverse effects within the context of the project, The social effects are likely to be transitory as the affected firms either adjust to the loss of productive land, or alternatively cease to operate at that site and relocate elsewhere within the sub-region.

There are other business activities within the local study area that are potentially impacted by the changes to the local road network. Accessibility constraints can impact on the ability of workers to access premises, lengthen trip times, and affect accessibility to other firms. These effects are expected to be short term and less than minor as workers, suppliers and related firms adjust to the new road network.

## 7.6 Effects on Community and Recreational Facilities

At the regional or sub-regional level the effects of the WAL on recreational and community facilities is considered to be less than minor. The changes to the local roading network do not impose significant constraints on accessibility to community or recreational facilities.

At the local study area level, there are effects on community and recreational facilities that need to be taken into account. These apply principally to the following:

- Ruahapia Marae;
- The Kura o Mangateretere School;
- The Karamu Golf Club and Driving Range; and
- Pakowhai Regional Park.

Ruahapia Marae derives both positive and adverse effects from the closure of Ruahapia Road at the rail crossing. Adverse effects principally arise from the fact that access to the marae from the north (Pakowhai Road) will in the future be via the WAL and SH2, or alternatively Karamu Road and Ellwood Road via Otene Road. Positive effects are principally related to the removal of much of heavy vehicle traffic from Ruahapia Road past the marae, and a significant reduction in overall traffic volumes resulting in a safer road environment adjacent to the marae. There are also positive spillover effects in terms of improvements to the natural and physical environment of the Karamu Stream in the vicinity of the WAL. HDC is looking at utilising Ruahapia Road to provide a safe cycleway given the large reduction in traffic volumes once the WAL is constructed.

The Mangateretere School is the beneficiary of largely positive effects. A reduction in HCV volumes on SH2 will have benefits in terms of road traffic noise, vibration and emissions, along with a safer road side environment for drop-offs and pick-ups. The realignment of the Pilcher Road intersection to the proposed rotary intersection at SH 2 /Napier Road will also have beneficial effects on traffic safety in the vicinity of the school.

The effects on the Karamu Golf Club and the driving range are expected to be neutral. SH2 in the vicinity of the golf club is unlikely to experience any significant change in traffic volumes or composition.

Pakowhai Regional Park will be affected by the proposed rotary intersection of WAL and Pakowhai Road. While there will be a small loss of land at the entrance to the Park, the opportunity to achieve a safer entrance to the park at the intersection is a positive effect. Consideration will need to be given to the way in which the local cycle and pedestrian path network in the vicinity connects into the Park. At present Rangitane Road provides a walking and cycling link from Pakowhai Road back into Whakatu, with the partially formed section southwest of the Karamu Stream intersecting with Pakowhai Road opposite the entrance to the Regional Park.

# 8. Effects on Health and Wellbeing

### 8.1 Changes to Community Wellbeing

The effects on community wellbeing at the regional and sub-regional level are expected to be positive, generally on the basis of the anticipated benefits of the WAL in terms of economic effects and employment generation. This is both in terms of the specific project itself, and the flow on effects that are expected from agglomeration economies associated with anticipated industrial development.

At the level of the local study area, and in the immediate vicinity of various components of the WAL, there may be adverse effects. Some of these will be temporary effects as adjustments are made to changes in the local road network, or during the construction phase. Others could have longer term consequences, but these will in turn be based on decisions that landowners and occupiers make in response to the WAL.

In this regard, the social effect is the response to the cumulative effect of the WAL and its construction and operation on the social environment within which the project sits.

### 8.2 Personal Safety and Averting Behaviours

Aspects of personal safety and averting behaviours tend to be relevant only at the level of the local study area. This is because the response to the perceived risks associated with the project is generally only felt in its immediate vicinity.

One of the principal aspects of the WAL during the construction phase is the off-line nature of its construction and the ability to construct the project in sections between principal rotary intersections. This has the benefit of minimising the need for local residents to adopt averting behaviours that seek to avoid the disruption caused by construction activity.

The adverse effects of the project in terms of personal safety and risk are expected to be felt primarily at the southern end of the project in the vicinity of the rotary intersection on SH2 and adjacent to the alignment through to the intersection with Whakatu Road.

This will also depend on the degree to which the direct effects on the horticultural properties affected by the alignment have been managed in the phase leading up to construction. The

assumption is made that the recommendations made in the AgFirst report<sup>10</sup> in relation to adopting measures to mitigate the adverse effects of the WAL and its construction on the surrounding land holders have been carried through in the detailed design phase and in the lead up to the construction phase.

The aim of these recommendations is principally to ensure that on-farm facilities and infrastructure are reorganised or realigned as a result of the WAL. In addition, changes are required to property accesses to maintain safety and also measures put in place to ensure the security of adjacent property during the construction and operational phases.

Pedestrian and cycle safety will be provided via the construction of an underpass where the WAL crosses the Hastings to Clive cycleway at the proposed railway crossing. An analysis based on the NZ Transport Agency's Pedestrian Planning and Design Guide and Guidelines for the Selection of Pedestrian Crossing Facilities was undertaken. This analysis identified that a form of grade separation would be the most appropriate form of crossing.

### 8.3 Exposure to Noise and Discharges to Air

These effects are primarily felt in close proximity to the project works. This analysis is therefore concentrated on the local study area.

Exposure to noise and discharges to air arising from the WAL are to a large extent covered by specialist reports. One of the issues associated with social impact assessment is the avoidance of "double counting" of actual or potential adverse effects.

The Noise Assessment undertaken by Hegley Acoustic Consultants<sup>11</sup> concludes that the noise effects associated with projected traffic flows at the design year (10 years after opening) measured at the façade of all the Protected Premises and Facilities (PPF) in the vicinity of the WAL can be appropriately mitigated. This is achieved through alternative road surface treatments (primarily asphalt as opposed to chip seal).

PPF's occur in clusters in relation to the WAL alignment, with the largest cluster being located adjacent to the southern rotary intersection on SH2. The majority of these PPF's are dwellings, one of which (located on the Wedd property) is proposed to be relocated as a result of the construction of the WAL.

The Noise Assessment also addresses the effects of construction noise. A preliminary assessment has been undertaken based on typical construction techniques, with plant operating up to 5 metres from the WAL carriageway. The analysis is conservative in that it has been undertaken without factoring the use of acoustic screens or temporary walls, which typically can provide 5-10 dB of noise attenuation. The noise assessment demonstrates that there is potential for construction noise to exceed the Construction Noise Standard and mitigation will be required. Such mitigation is to be determined by the contractor once the specifics of construction equipment has been determined.

It is noted that the effects of noise on dwellings has been discussed during a public meeting held as part of the consultation process for the WAL. Given the proximity of dwellings around SH2 in particular, it is apparent that at least some of the owners or occupiers of these dwellings perceive the potential adverse effects of noise to be a factor in their on-going health or well-being.

The social effect of construction noise will depend on the duration of the construction activity, the staging of that activity, and the degree to which the received noise impinges of normal activities undertaken at each of the PPF's. There is a cumulative effect associated with

<sup>&</sup>lt;sup>10</sup> Wilton J (2014) Ibid pg 14

<sup>&</sup>lt;sup>11</sup> Hegley R (2014) Ibid pg 24

discharges to air such as dust, or the intrusion of vehicle emissions from construction equipment. This can be mitigated through temporary screening and frequent dust suppression.

Reverse sensitivity effects have been identified in the AgFirst report, based on potential off-site effects of horticultural spraying on people travelling on the WAL during the spray season. There are also the effects of dust generation during the construction season, but this is couched more in the context of a risk to fruit quality rather than an effect on the amenity values associated with each PPF, and the health and social wellbeing of occupants.

There are potentially positive and adverse effects in terms of both noise and air emissions arising from the WAL elsewhere in the local roading network although these are inferred rather than quantified. The redistribution of HCV traffic has potential benefits for the residential part of the Whakatu community, properties along SH2 and for Clive. Similarly, properties along Pakowhai Road are potentially impacted by an increase in HCV movements as traffic is redirected to the Hawke's Bay Expressway.

The Traffic Effects Assessment indicates that despite this redistribution of HCV traffic, particularly along Pakowhai Road, the volume of HCV traffic will still be less than that prior to the opening of the Hawke's Bay Expressway. In this context consideration may also need to be given to any be works planned for Pakowhai Road, which may alleviate the safety concerns of the local community. HDC has recently reduced the speed limit on Pakowahi Road and installed a flush median as part of these works.

### 8.4 Public Safety and Risk

The WAL is anticipated to have effects on perceptions of public safety and risk. As with the personal safety and risk issues, the effects are likely to be felt within the local study area as opposed the regional and sub-regional level. This is not to say that public safety issues will not be felt beyond the local study area, however they are expected to be negligible.

Within the local study area, the primary aspects in relation to public safety are related to the potential redistribution of traffic associated with the WAL, particularly HCV traffic. The Whakatu community in particular is concerned that the WAL will not necessarily reduce HCV movements on Railway Road, and Station Road. The community meeting held on 14 March 2012<sup>12</sup> noted concerns relating to traffic movements through the residential area, and the lack of long term planning towards a safer traffic environment.

The community noted that at present a significant volume of industrial traffic enters Whakatu via Station Road, and the WAL needs to alleviate that traffic. As part of a longer term strategy there needed to be a means of managing traffic flows within Whakatu to discourage traffic from moving through residential areas.

This raised wider issues associated with longer term planning for the Whakatu community and industrial area as a whole. This is particularly important in the context of the agglomeration economies assumed by the Economic Effects Assessment, both in terms of GDP and employment. The local community will be concerned that continued industrial development will lead to increases in traffic generation and that the WAL will only be a partial solution to issues of public safety and risk. It is noted that the Council is reviewing the Whakatu Community Plan and as part of that review and future reviews additional measures such as local area traffic management plans could be considered to compliment the WAL in terms of encouraging traffic to utilise the WAL as a connection to the Port of Napier rather than the coastal route.

<sup>&</sup>lt;sup>12</sup> As outlined in the Assessment of Environmental Effects Report (HDC 2014(c))

# 9. Effects on Personal and Property Rights

Effects relating to personal and property rights are generally felt at the project level, although those relating to uncertainty and project timing can be felt at the sub-regional and regional levels, particularly where the project is pivotal to significant investment decisions that rely on the project outcome.

# 9.1 Uncertainty and Construction Timing

The development of the WAL has potential adverse effects in terms of uncertainty, particularly during the consenting phase, and then in relation to construction timing. These effects are related to:

- Uncertainty around the physical extent of the project in relation to individual properties, the extent of the potential land take, and flow on effects on use options for the balance of the property;
- Uncertainty regarding the viability of the property in the future, and the decision-making around options for continued use of the land or disposal of the balance of the land; and
- Uncertainty around the construction timing and the detail of the process involved in reorganising orcharding and industrial operations, and adaptation to the new road alignment and the effects of the operational phase of the WAL.

These issues will be principally resolved through property negotiations with affected landowners under the provisions of the Public Works Act. Subject to agreements with landowners that address these issues, these effects are assessed at being more than minor through to moderate.

# 9.2 Relocation

One of the potential outcomes of the discussions and negotiations regarding land takes for the WAL is that certain owners or occupiers may be placed in the position of having to relocate. While one dwelling (a rental home located on the Wedd propriety) will be relocated within the same property as a result of the WAL, the broader extent to which this will be an outcome of WAL is uncertain.

The potential adverse social effects depend on a range of factors, including:

- The length of time the people or families involved have been resident in the local community;
- The extent of the local contacts and support networks that they have developed over time; and
- Whether or not they have options to find alternative land or a place to live within the local community.

Until landowner negotiations and consultation are more advanced the extent of any relocation and the effects that flow from that cannot be fully assessed. However it is noted that the Public Works Act process provides for compensation of effects such as injurious affection, business disruption, and a solartium payment.

# 9.3 Effects on Properties

The AgFirst report notes that there are a number of potential impacts on landowners.<sup>13</sup> These have a social component to the extent that they result in stress, uncertainty, and the need to reorganise business operations to cope with the change in circumstances.

The report identifies three properties whose stand-alone viability in terms of current land use practices may be threatened by the WAL. It is not clear from the information currently available as to what social effects this may have. Until negotiations and discussions with landowners reach a more advanced stage, the actual or potential adverse effects are unknown.

# 10. Effects Related to Community Fears and Aspirations

## 10.1 Wider Community

For the regional and sub-regional communities the WAL represents an opportunity to unlock some of the economic and employment generation of the Whakatu Industrial area, and to provide improved accessibility between Whakatu and the Port of Napier.

The social effects at this level of analysis are closely related to perceptions about the strength of the regional economy and the ability for new road infrastructure to provide the necessary impetus to support growth.

Depending on the timeframe that is adopted for assessing the actual or potential benefits of the investment in the WAL, the social effects are assessed as being positive at the regional and sub-regional level and ranging from moderate to significant.

## 10.2 Local Community

For the local community these wider aspirations are also important, along with the potential to redirect HCV traffic to other parts of the local road network and improve the health and safety of local residents. However, the local community has also expressed reservations associated with the flow on effects of the WAL and the projected level of growth that may accrue in the future.

The WAL on its own as a means of improving the efficiency of the local roading network is consistent with community aspirations around reducing HCV traffic on certain parts of the network and improving the level of service on the network, and its safety.

However, there remains the concern that the longer term social effects of growth at Whakatu are yet to be addressed through an appropriate planning framework. While the Whakatu community wishes to see the benefits of particularly employment growth, this needs to be achieved in a way that insulates the residential area of Whakatu from increases in traffic generation, through traffic and conflict with residential based activities. As note in Section 8.4 there are opportunities through the Whakatu Community Plan review to implement other measures such as local area traffic management measures to compliment the WAL in regards to reducing traffic volumes through the residential areas.

<sup>&</sup>lt;sup>13</sup> WILTON s (2014) Ibid pg 1

# 11. Summary of Effects and Proposed Mitigation

### 11.1 Overview

The following is a summary of the findings of the above assessment and includes recommendations for avoiding, remedying or mitigating adverse social effects, including management strategies to minimise impacts and maximise benefits through appropriate design process and through appropriate conditions of consent.

The summary follows the main Section headings in the body of this report. The identification of actual or potential effects is correlated with the stage in the project, and the level at which the effect is felt, i.e. regional, sub-regional, or local community. The proposed mitigation is identified and an effects rating is given.

## 11.2 Effects on Way of Life

The effects on accessibility and connectivity at the regional and sub-regional level are largely positive. At the local level there are effects on local businesses and community facilities located on Ruahapia Road, which will no longer act as a through road between Pakowhai Road and SH2. This will be offset over time as the community adjusts to the new arrangement. Accessibility is unlikely to be significantly affected during construction due to the offline nature of the construction works and phasing.

## **11.3 Effects on Community Cohesion**

The effects of the project on community cohesion are essentially felt at the local level. The degree to which community cohesion will be affected by potential dislocation of families or businesses directly affected by the project is unclear, at this stage. It is also unclear as to the extent to which families or businesses might seek to relocate to avoid cumulative adverse social effects. While mitigation is proposed in terms of visual amenity and exposure to road traffic noise, the project may act as trigger for relocation. This is particularly the case where the effect on the viability of orchard operations traversed by the WAL is compromised. This can be mitigated by a variety of measures including compensation, consultation or environmental enhancement.

It is recognised that the economic benefits of the project, both in terms of the direct benefits associated with economic and employment growth and in terms of agglomeration benefits at Whakatu will more than fully compensate for the adverse effects on the viability of a small number of local orchard operations.

In a wider context the project brings benefits to the community by reducing existing adverse effects on Mangateretere School and enhancing accessibility to Pakowhai Regional Park. Ruahapia Marae benefits from a more benign traffic environment, despite a marginal loss of accessibility.

## 11.4 Effects on Community Health and Wellbeing

The overall effects on community well-being at the regional and sub-regional level are expected to be positive on the back of the anticipated economic and employment growth that the WAL is expected to unlock at Whakatu.

At the local community level the construction phase will bring some anxiety associated with potential adverse effects on personal safety, and the perceived need to adopt a risk averse

approach to travel in the vicinity of the project. During the operational phase there is some concern that the WAL will potentially generate adverse effects in terms of noise and air quality, and a perceived reduction in personal security. As noted below many of these effects during the construction phase can be adequately mitigated by environmental and traffic management plans, along with more specific measures associated with landscaping, screen planting, and road surface treatments.

# 11.5 Effects on Personal and Property Rights

Effects relating to personal and property rights are generally felt at the project level. In this case there are likely to be adverse effects felt during the consenting and construction phases relating to uncertainty and construction timing. These effects are generally mitigated by employing a robust consultation and engagement process with directly affected landowners and occupiers. Until the related negotiations are sufficiently advanced it is not possible to discuss the full scope of the potential adverse effects. However HDC has been engaged with property owners and have provided land requirement plans, discussions relating to potential timing and property acquisition process.

# 11.6 Mitigation through Management Plans

The principal mitigation tools will be the use of two Management Plans during the construction phase. The Construction Environmental Management Plan will manage the direct environmental effects of the development. The Construction Traffic Management Plan will manage the direct effects of construction activity on local traffic and the road network for the duration of the project. This will provide mitigation for some of the social effects associated with accessibility and connectivity, public transport and modal choice, perceived impacts on personal safety, and effects associated with public safety and risk.

Table 5 presents a summary of actual or potential effects and proposed mitigation, and makes use of the following abbreviations:

Stage	Level
Construction: C	Regional: R
Operational: O	Sub-regional: SR
	Local: L

# **11.7 Summary of Effects**

The actual and potential social effects of the WAL are summarised below along with the proposed mitigation

#### Table 5: Summary of Actual or Potential Effects and Proposed Mitigation

Way of Life						
Effect	Stage	Level	Mitigation	Overall Rating	Comment	
Effects on accessibility	С	SR/L	Construction Traffic Management Plan (CTMP)	Minor adverse		
	0	R/SR		Significant positive	Based on estimates of potential agglomeration effects	
	0	L		Moderate positive	Based on estimates of agglomeration effects and employment growth	
Connectivity and Modal Choice	0	L		Minor adverse/neutral	Based on adaptation of the community to the new local road network	
Effects on Community Cohes	sion					
Potential Dislocation	С	L	Land owner negotiation	Moderate to minor adverse	Effects unknown until land owner negotiations have been sufficiently progressed	
Relocation to Avoid Cumulative Effects	C/0	L	CTMP and Construction Environmental Management Plan (CEMP), landscape and visual effects mitigation, road surface treatments	Moderate to minor adverse	Effects unknown until land owner negotiations have been sufficiently progressed	

Effects on Educational Facilities	C/O	L	CTMP and CEMP	Neutral to minor positive			
Effects on Business Activities	С	L	CTMP and CEMP	Neutral to minor positive			
	0	R/SR/L		Significant to Moderate positive	Based on estimates of agglomeration effects and employment growth		
Effects on Community Facilities	С	L	CTMP and CEMP	Minor adverse			
	0	SR/L		Moderate positive	Based on improvements to local accessibility and active transport options		
Effects on Health and Wellbeing							
Personal safety and averting behaviours	С	SR/L	CTMP and CEMP	Moderate to minor adverse			
	0	SR/L		Neutral	Based on adaptation of the community to the new local road network		
Exposure to Noise and Air Discharges	С	L	Construction Environmental Management Plan (CEMP), and road surface treatments	Minor adverse	Based on the response to the cumulative effects of exposure, and the ability to mitigate effects		
Public Safety and Risk	С	L	CTMP and CEMP	Minor adverse			
	Ο	SR/L		moderate positive	Based on improvements to local accessibility and active transport options		

Effects on Personal and Private Property									
Uncertainty and Construction Timing	С	L	On-going consultation and engagement with landowners and the community Construction staging	Moderate to minor adverse	Assessment to be updated following the results of on-going negotiation with directly affected landowners and occupiers				
Relocation	С	L	On-going negotiation with affected landowners and occupiers	Moderate to minor adverse	Assessment to be updated following the results of on-going negotiation with directly affected landowners and occupiers				
Effects on Properties	С	L	On-going negotiation with affected landowners and occupiers	Moderate to minor adverse	Assessment to be updated following the results of on-going negotiation with directly affected landowners and occupiers				
	0	L		Neutral					
Effects on Community Fears and Aspirations									
Wider community	С	R/SR		Moderate positive	Based on direct and indirect economic and employment benefits of construction				
	0	R/SR		Significant positive	Based on estimates of agglomeration effects and employment growth				
Local Community	С	L	CTMP and CEMP	Moderate to minor adverse					
	0	L		Moderate to significant positive	Based on direct and indirect economic and employment benefits of construction				

# 12. Basis of Report

This report: has been prepared by GHD for Hastings District Council and may only be used and relied on by Hastings District Council for the purpose agreed between GHD and the Hastings District Council as set out in Section 1 of this report.

GHD otherwise disclaims responsibility to any person other than Hastings District Council (and GHD's wider team of sub-consultants) arising in connection with this report. GHD also excludes implied warranties and conditions, to the extent legally permissible.

The services undertaken by GHD in connection with preparing this report were limited to those specifically detailed in the report and are subject to the scope limitations set out in the report.

The opinions, conclusions and any recommendations in this report are based on conditions encountered and information reviewed at the date of preparation of the report. GHD has no responsibility or obligation to update this report to account for events or changes occurring subsequent to the date that the report was prepared.

The opinions, conclusions and any recommendations in this report are based on assumptions made by GHD described in this report. GHD disclaims liability arising from any of the assumptions being incorrect.

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Rev	Author	Reviewer		Approved for Issue		
No.		Name	Signature	Name	Signature	Date
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