



Te Ahu a Turanga; Manawatū Tararua Highway Notices of Requirement for Designations Volume Three: Technical assessments





3. SOCIAL

IN THE MATTER OF

The Resource Management Act 1991

AND

IN THE MATTER OF

Notices of requirement for designations under section 168 of the Act, in relation to Te Ahu a Turanga; Manawatū Tararua Highway Project

BY

NZ TRANSPORT AGENCY
Requiring Authority

TE AHU A TURANGA; MANAWATŪ TARARUA HIGHWAY PROJECT
TECHNICAL ASSESSMENT #3
SOCIAL IMPACT ASSESSMENT

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INTRODUCTION

1. I, **Amelia Linzey** of Beca Limited, am the primary author responsible for the preparation of this Social Impact Assessment ("**SIA**"). With my oversight, Jo Healy of Beca Limited has also contributed to the preparation of this assessment.

Qualifications and experience

2. I have the following qualifications and experience relevant to this assessment:
 - (a) over 20 years' professional experience in environmental impact assessment and consultation;
 - (b) Master of Science in Geography (First Class Honours) from the University of Auckland and Bachelor of Science; and
 - (c) full member of the New Zealand Planning Institute ("**NZPI**") and a member of the International Association of Public Participation (IAP2) and I have undertaken the IAP2 Certificate Programme in Public Participation (2003).
3. I prepared or was otherwise involved in undertaking SIAs for the following projects or matters:
 - (a) Ōtaki to North of Levin Transport Corridor, Short List Options, NZ Transport Agency;
 - (b) peer review of the Social Impact Monitoring Report for Wiri Prison, Auckland, for the Department of Corrections;
 - (c) options for the proposed Huia Water Treatment Plant, Auckland, for Watercare;
 - (d) advice to Western Bay of Plenty District Council regarding the social impacts of potential changes to its District Plan, responding to debris flow hazards;
 - (e) East West Project (involving preparation of an SIA and presentation of evidence to a Board of Inquiry), for NZ Transport Agency;
 - (f) peer review of the SIA for the Redoubt Road-Mill Road Corridor Project, for Auckland Transport;
 - (g) the designations for the City Rail Link for Auckland Transport;
 - (h) the resource consent applications to abandon the wreck of the MV Rena on the Astrolabe Reef (including presentation of hearing evidence);

- (i) the Drury South Plan Change, a private plan change initiated by Stevenson Ltd to extend the Metropolitan Urban Limit and change the zoning of rural land in Auckland (Drury) to a mix of urban land uses (including industrial and business park land);
 - (j) the Ruakura Inland Port Proposed Plan Change (2013-2014) including presentation of hearing evidence;
 - (k) the Waterview Connection Proposed Plan Change for the NZ Transport Agency (2010-2011) including presentation of evidence; and
 - (l) peer review of the MacKays to Peka Peka SIA (2012), for the M2PP Alliance.
4. Jo Healy of Beca Limited has the following qualifications and experience relevant to this assessment:
- (a) professional experience in environmental impact assessment and consultation;
 - (b) Bachelor of Science in Geography and Environmental Science (First Class Honours) from the University of Auckland and Bachelor of Science; and
 - (c) associate member of the NZPI.
5. She has assisted in undertaking SIAs for the following projects or matters:
- (a) Ōtaki to North of Levin Transport Corridor, Short List Options, NZ Transport Agency;
 - (b) peer review of the Social Impact Monitoring Report for Wiri Prison, Auckland, for the Department of Corrections;
 - (c) options for the proposed Huia Water Treatment Plant, Auckland, for Watercare; and
 - (d) input on assessment of social impacts for multi criteria analysis of short list options for a number of safety improvement projects for the NZ Transport Agency (Safe Roads Alliance) including SH16 Safety Improvements, SH22 Safety Improvements, and SH1 to SH15 Safety Improvements.

Code of conduct

6. I confirm that both Jo Healy and I have read the Code of Conduct for expert witnesses contained in the Environment Court Practice Note 2014. This

assessment has been prepared in compliance with that Code, as if it were evidence being given in Environment Court proceedings. In particular, unless I state otherwise, this assessment is within my area of expertise and I have not omitted to consider material facts known to me that might alter or detract from the opinions I express.

Purpose and scope of assessment

7. This SIA forms part of a suite of technical assessments prepared for the NZ Transport Agency's Te Ahu a Turanga; Manawatū Tararua Highway Project (the "**Project**"). Its purpose is to inform the assessment of effects on the environment included in Part G, Volume 2 'Supporting Material' that accompanies the Notices of Requirement application for designations under the Resource Management Act 1991 ("**RMA**").
8. This assessment analyses the social impacts of the Project (by reference to the proposed designation corridor shown on the Project drawings).
9. The purpose of this report is to:
 - (a) identify and describe the existing social environment;
 - (b) describe my assessment of the potential general (Project-wide) and specific local social impacts of the Project;
 - (c) recommend measures as appropriate to avoid, remedy or mitigate potential adverse social impacts (including any conditions and management plans required); and
 - (d) present an overall conclusion of the level of potential adverse social impacts of the Project after recommended measures are implemented.

Assumptions and exclusions in this assessment

10. The assessment of the Project is based on the anticipated and potential social consequences of the construction and operation of a new strategic (State highway) corridor that will bypass the existing use of Saddle Road and/or Pahiatua Track between the Ashhurst and Woodville areas.
11. In particular, the Project reinstates State Highway 3 ("**SH3**"), which was closed in April 2017 as a result of slips and stability issues through the Manawatū Gorge. As the area is still a significant health and safety risk, there are currently no plans to re-open the road for any activities including winning material, cycling or pedestrians. As such, the 'existing environment' against which the effects of the Project are assessed includes the road network that

is operational at the present time. This SIA does not analyse the social effects that arose from the closure of SH3 in April 2017 (and since then), except inasmuch as these impacts have been considered as an input to the potential social consequences of the re-establishment of the SH3 corridor.

12. The Project will become the new SH3 and will replace the existing route. The details associated with the revocation and/or termination of the existing (albeit closed) SH3 route through the Gorge are not part of this Project and will be subject to separate procedures and consultations with stakeholders. Until such time as the future of the existing route is confirmed the existing designation will remain in place. Any potential uses of the 'old Manawatū Gorge' are thus to be seen as opportunities.
13. In all sections the assessment considers potential social impacts at the regional, local community, and 'Project extent' scales. While I acknowledge that there will be impacts experienced at an individual/household level, specific property impacts (and in particular socio-economic impacts associated with property purchase) have not been the focus of this social impact assessment. I understand that individual consultation with owners and occupiers within the Project footprint, specifically in respect of property and site-specific issues is being addressed by the NZ Transport Agency, as part of the wider Public Works Act 1981 process for the acquisition/lease of directly impacted properties.
14. In my assessment I have relied on the following data to assess the social impacts of the construction and operation of the Project:
 - (a) Project drawings indicating road and earthwork locations;
 - (b) current and future traffic volumes and journey times from Transport Assessment by David Dunlop;
 - (c) the indicative construction methodology and design details provided in the AEE; and
 - (d) the current noise environment and future noise effects evaluated in the Noise and Vibration Assessment by Dr Stephen Chiles.
15. Measures are recommended to address potential social impacts of the Project. Depending on the implementation of these measures, the degree to which the assessed impacts of the Project may change is commented on in my overall assessment.

16. As discussed in subsequent mitigation recommendations, I am of the opinion that it will be important in the detailed design phase of the Project, to develop more specific management measures, particularly in respect of design and implementation details. This will provide greater clarity on how the community may experience the Project; for example traffic movements/access to facilities such as the Gorge walkway etc., as a result of construction works. This will also provide an opportunity to demonstrate how the Project will address specific matters identified in this SIA (for example, community liaison).
17. In addition, there are currently a number of uncertainties of detail on construction and design, which have different potential social consequences. In my opinion, involving the community in consideration of these options may allow some 'trade-offs' to be balanced. For example, the opportunity to accelerate construction by night works may result in some potential adverse effects (such as disruption to people's quality of environment and way of life) but the community may consider this preferable to longer construction periods overall. In my experience, involving the community in the development and consideration of these construction and design details can, in itself, provide valuable social mitigation (by enabling the community to assist in informing option consideration, rather than having such decisions 'imposed' on them). I have seen a number of projects where working with a community in the consideration of options results in the consequential impacts being more readily accepted (and less adverse) than if such changes take people by surprise.
18. This SIA does not cover regional or local economic impacts, except where it may potentially impact on employment and, as such, people's way of life and/or ability to provide for themselves.
19. This SIA also does not seek to assess the cultural effects of the Project, or potential impacts on tangata whenua/mana whenua values. I have been advised by the NZ Transport Agency that these are to be assessed by mana whenua.

EXECUTIVE SUMMARY

20. The Project is to construct and operate 11.5km of new State highway running from the SH3 western entry to the closed Manawatū Gorge route, across the Ruahine Ranges ("**the Ranges**") north of the Manawatū Gorge and south of Saddle Road, and emerging near Woodville. The Project replaces section of

SH3 through the Manawatū Gorge that was closed on 24 April 2017 following a large slip, and has been closed since due to ongoing stability issues in the Gorge.

21. This assessment is based on the existing environment which includes a transport network featuring the use of two alternate routes over the Ranges; Saddle Road and the Pahiatua Track. It assesses social impacts at the regional scale (people within the Tararua, Manawatū, and Palmerston North Districts and surrounding areas are dependent on this section of SH3 to traverse east and west of the Ranges), local scale (Ashhurst and Woodville) and within the Project extent (local landowners and neighbours).
22. The construction of the Project has the potential to exacerbate negative social impacts that have been experienced by Woodville, Ashhurst and the wider region since the closure of the Gorge and the use of the alternate route. That said, construction traffic will result in a relatively small increase in overall volumes and in general have low negative impacts. Potential changes will add to issues regarding the safety and the integrity of the road, slowing traffic, increased congestion and noise.
23. At a regional and local (for the Woodville community) scale, additional construction traffic using Saddle Road may impact on the way people carry out their daily activities such as commuting to work or education, accessing health services, and may increase time spent away from home (or potentially time spent away from work, albeit work hours are more often for specified or contractual amounts) due to increased journey times.
24. Overall, communities to the east of the Ranges may be further isolated from Ashhurst, Palmerston North and other western communities, due to accessibility issues on Saddle Road (such as reliability of travel time, disruptions to trips and perceptions of poorer safety or road quality).
25. Over construction, the existing constraints on the use of Pahiatua Track as a cycle route over the Ranges may also be exacerbated, further reducing connectivity; while this route is primarily a recreation and tourism movement for cyclists, there was at least one person in consultation who identified using it to commute by cycle to work.
26. The Ashhurst community is less reliant on traversing the Ranges, but construction traffic may exacerbate impacts already experienced from the higher traffic volumes currently travelling through the centre of residential Ashhurst. Social impacts associated with this activity include potential

changes to the way people carry out daily activities, come together as a community, and otherwise move within Ashhurst, and further potential disruption to the quiet lifestyle residents once enjoyed. While this is a relatively low change (compared to the existing traffic volumes using the route), high volumes of construction traffic at night could increase the severity of this impact, as people are often more sensitive to changes in the quality of environment (particularly noise and light disturbance) over-night periods. Notwithstanding this general comment, it is also acknowledged that there may be some social benefits associated with reducing overall construction periods (for example, communities may be tolerant of increased disruption for a shorter period of time).

27. In contrast to the shorter-term construction impacts (albeit still in the order of 5 years), at a regional and local scale the Project, once operational, will have longer-term or permanent positive social impacts that range in scale from moderate to high. These social benefits will arise from relieving the issues associated with the existing environment and reverting to an environment that is similar to prior to the Gorge closure, namely reinstating a SH3 connection between the east and west across the Ranges in this area (and in many respects improving the connection, in terms of safety and reliability).
28. The social benefits from providing a safer, more reliable and more resilient journey include improving social cohesion, enabling people to improve their way of life and opportunities to provide for their social and economic wellbeing (including by improving opportunity for economic activity). In addition, as a consequence of the new route, it is anticipated that the regional cycle route (via the Pahiatua Track) will be reinstated, improving both recreation activity/connectivity and the associated tourism activity that is identified as important for the community.
29. I consider that providing mitigation via relevant management plans (such as in relation to the management of construction traffic), targeted communication, and further engagement and consultation with the community, will enable the potential negative impacts to be appropriately remedied and mitigated. However, it is acknowledged that construction is likely to be a disruptive impact for communities (albeit a necessary process to achieve the longer term positive social outcomes of the Project).

PROJECT CONTEXT AND EXISTING ENVIRONMENT

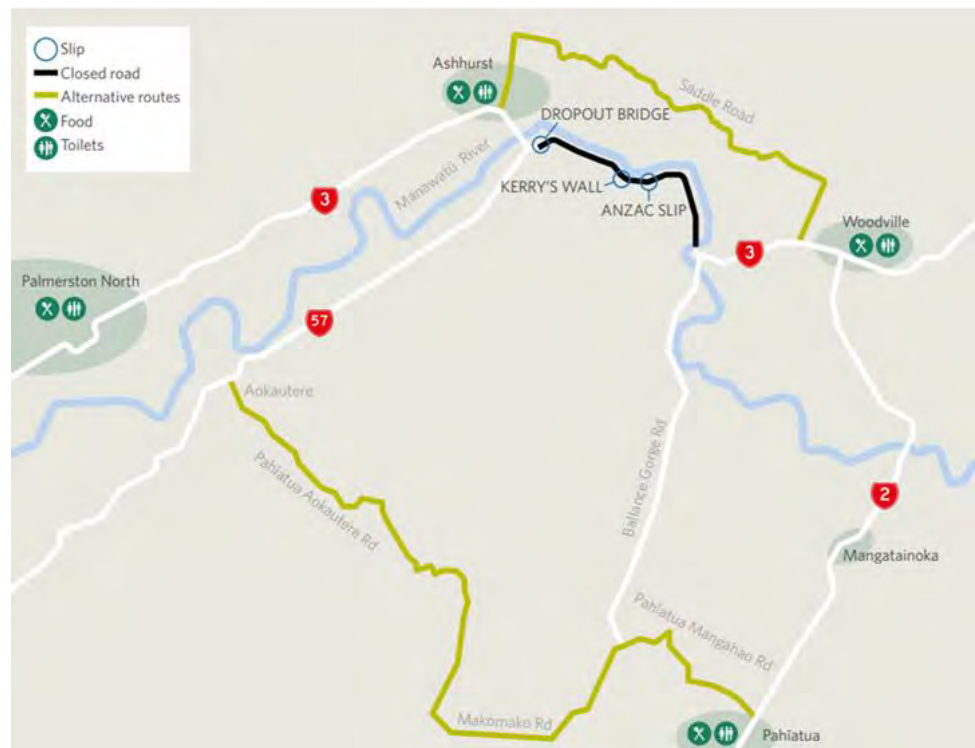
Project context

30. A detailed business case for implementation has been prepared by the NZ Transport Agency¹, and the following details about the Project context and existing environment are largely derived from that document.
31. Prior to closure, SH3 through the Manawatū Gorge provided an important and strategic transport connection between the west and east of the North Island. As well as providing a physical connection between the Manawatū-Whanganui and Hawke's Bay regions, it connected communities such as Woodville and Dannevirke with Ashhurst and Palmerston North. The route was classified as a National Road and carried general traffic and freight traffic (the latter at a level qualifying it as an important national freight link).
32. The road was first built in 1872 and had undergone significant construction and widening since the 1940s. It provided two lanes and no shoulder, and the 8km winding route through the Gorge did not allow for overtaking. Vehicle volumes were approximately 7,620 a day, approximately 11% of which were heavy commercial vehicles ("HCVs"). However, the route was not designed for over-weight or over-dimension loads (which instead use Saddle Road). The Pahiatua Track is another connection across the Ranges, and is identified as the relevant national cycle route connection.
33. In combination, these three routes – the Gorge, Saddle Road, and the Pahiatua Track – provided for accessibility and connectivity between the west and east across this lower central band of the North Island. The topography through this area means the other 'east-west' connections are either significantly to the north (e.g. at Rangipo on SH1/SH46) or to the south (e.g. Wairarapa to Wellington on SH2).
34. This section of SH3 is positioned to connect into SH57 east of Ashhurst (providing a link to SH1). Additionally, at the eastern side of the Gorge, it connects to the SH2/3 intersection in Woodville which accommodates traffic movements to and from the Wairarapa and Hawke's Bay regions. It was used both by local road users, to connect the nearby urban and rural areas, and by business operators and inter-regional travellers.

¹ It is understood that potential social effects of a long list of 18 and short list of 4 options were considered as part of the Business Case process. I was not involved in that process but, as noted below, have reviewed that evaluation in undertaking this assessment.

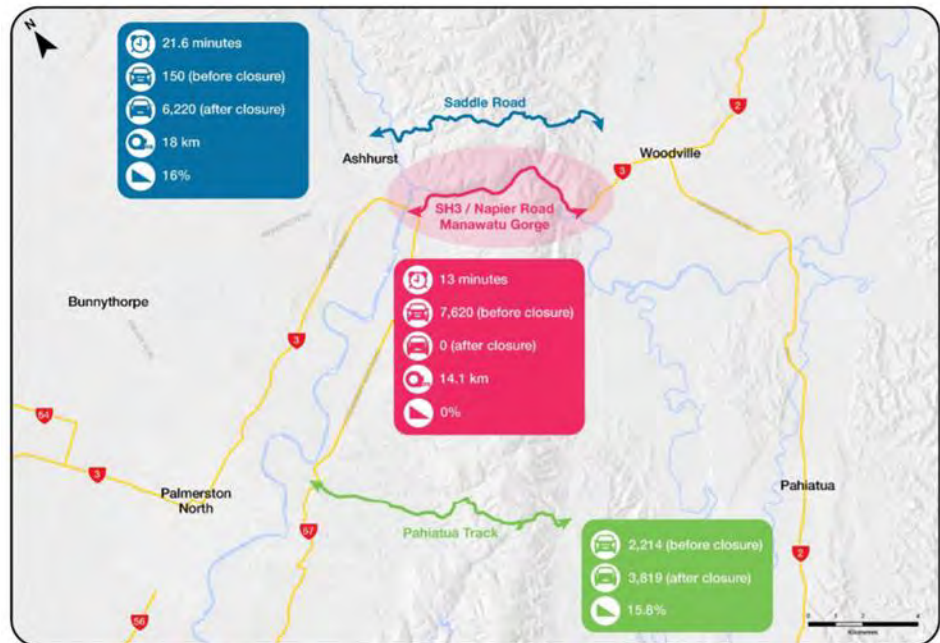
35. Landslides within the Gorge have caused intermittent road closures since its opening and there has been a high probability this would be an ongoing occurrence. The road was closed indefinitely on 24 April 2017 following a large slip and ongoing stability issues in the Gorge.
36. The two remaining alternative routes have been the primary 'alternatives' to the SH3 route since the closure; being Saddle Road and Pahiatua Track (see Figure 1 below).

Figure 1: SH3 Closure and Alternate Routes. Source: NZ Transport Agency Te Ahu a Turanga Project Maps



37. The closure of the Gorge has not resulted in lower traffic volumes traversing the Ranges, signifying the significance of this connection between east and west for the local communities and the region as a whole. Figure 2 sets out the NZ Transport Agency data on the redistribution of traffic volumes soon after the closure and the change in experience for traffic users.

Figure 2: Journey experience via SH3, Saddle Road and Pahiatua Track.
Source: NZ Transport Agency Business Case for Implementation
(31 May 2018)



38. Even with the improvement works that have been undertaken on Saddle Road since the closure of the Gorge, both Pahiatua Track and Saddle Road are steep, narrow and winding resulting in poor safety, resilience and efficiency outcomes. These routes are not considered to provide an appropriate level of service for the SH3 link. Given the traffic volumes on the routes, both have been subject to a number of road closures as road maintenance and repairs have been undertaken. Given this, a replacement route for SH3 is being sought.

Existing environment

39. As noted above, SH3 through the Manawatū Gorge has been closed since 24 April 2017 due to major damage and ongoing risks associated with landslides. The 'environment' against which the Project's effects have been assessed is the current environment, as it has been since the closure of the Gorge route; this is the use of Saddle Road or Pahiatua Track to travel east to west or west to east between SH2 and SH57 and/or SH3.
40. Currently approximately 6,220 vehicles a day (820 being HCVs) use Saddle Road (for context, the volumes using this route were closer to 150 vehicles prior to the Gorge closure) and 3,820 use the Pahiatua Track (as compared to 2,214 prior to the closure). Saddle Road was originally designed to service the local farms along it but has had upgrades in recent years to enable

construction of the Te Āpiti wind farm and, more recently, to improve the level of service for detoured State highway traffic. The NZ Transport Agency considers that Saddle Road, while sufficient as a short-term alternative route, does not offer an appropriate level of service for an interregional State highway connection catering for the current volume of traffic and HCVs.

41. A demonstration of the accessibility and connectivity impacts of the Gorge closure is provided in assessed details of travel times. The NZ Transport Agency indicates that the average travel times for general traffic between Woodville and Ashhurst have now increased from approximately 13 minutes for all traffic to 22 minutes for general traffic and 28 minutes for HCVs. In addition to this, anecdotally in the consultation process, a number of residents raised issues that many trips were even longer than these cited figures.
42. While not a specific consideration in the context of this SIA, the changes to the transport network that took place on closure of the Gorge have had considerable economic and social consequences, including in relation to operating/commuter costs and time costs resulting from the new ways in which businesses and commuters have had to carry out their daily activities and connect to other communities and regions. Concerns over travel time reliability have also had impacts for residents, as explained during consultation (some of whom, for example, have chosen not to travel in the fear or expectation of potential significant delays or safety concerns). One resident advised that family had left Woodville and moved into Palmerston North as a consequence of travel delays and safety concerns they had that were impacting both their way of life and health and wellbeing. A further impact raised was for those who require access to medical services, including hospitals, in Palmerston North.
43. Furthermore, the main alternative route currently being used through the range is via Saddle Road which results in traffic traversing directly through the centre of Ashhurst along Salisbury Street. Ashhurst School is also located on Salisbury Street. It is also acknowledged that increased traffic has resulted in additional noise and vibration, causing potential disturbance to locals and general nuisance, for example, sleep disturbance. Increased traffic also raises safety risk, particularly around the school. These concerns have been identified through community engagement feedback in the preparation of this SIA report.

PROJECT DESCRIPTION

Introduction

44. The Project is described in Part C, Volume 2 'Supporting Material',² and the following points are particularly relevant to this SIA.
45. The Project is 11.5km of new State highway running from the SH3 western entry to the closed Manawatū Gorge route, across the Ruahine Ranges north of the Manawatū Gorge and south of Saddle Road, emerging near Woodville. The Manawatū Gorge route accommodated 7,620 vehicles per day, including 11.3% of HCVs in 2016, prior to being closed. The Project is expected to accommodate approximately 9,370 vehicles per day when it opens in 2025. The Project includes:
- (a) two lanes (one in each direction with additional crawler lanes where the highway grades require and where extension of the crawler lane provides a consistent corridor);
 - (b) new bridge or culvert structures (crossing Manawatū River and some unnamed streams, and providing property access underpasses);
 - (c) new roundabout connections at SH57 and SH3; and
 - (d) the reconfiguration of a portion of the Te Āpiti wind farm, albeit that both access to and around the wind farm and the majority of wind turbines will be maintained.³

Design context

46. The Project is designed to deliver a 'national route' under the One Network Road Classification. It incorporates design elements that are contained in the NZ Transport Agency's Action Plans, particularly in respect of safety standards (as detailed in its guidance for a Safe System Approach). The new route will be SH3, replacing the existing (closed) SH3 route.
47. The new route was selected following a multi-criteria analysis of 18 route options. The process involved a consideration of the Project's investment objectives, environmental and social impacts, and feasibility for implementation.

² The design of the Project will be developed once the designations have been confirmed. This detailed design will be undertaken within the scope of the final designations' boundaries and delivery to the standards and requirements set in the conditions and will be set out in outline plans and other documents that will be provided to the Councils prior to construction.

³ Those works are relevant to this SIA inasmuch as they relate to the scale of construction activity proposed.

Design details

48. The road carriageway layout includes:
- (a) a four-arm two-lane roundabout connection with SH57 at Ashhurst;
 - (b) a five-arm single-lane roundabout connection with existing SH3 at Woodville;
 - (c) a two-lane single-carriageway highway (1 lane in each direction) where crawler lanes are not provided;
 - (d) a four-lane dual-carriageway highway (2 lanes in each direction) where crawler lanes are required due to steep grades and where extending the crawler lanes is necessary to provide a consistent corridor and reduce merge and diverge points;
 - (e) 3.5m-wide traffic lanes;
 - (f) 2.5m-wide outside shoulders on single carriageway (to the face of the edge barrier), or 2m-wide outside shoulders where there is a single carriageway with crawler lanes (from the outside of the crawler lanes to the face of the edge barrier);
 - (g) a central median which will be typically between 4m and 6m wide; and
 - (h) a central median and wire rope barrier provided from 'roundabout to roundabout', i.e. for the length of the Project from SH57 near Ashhurst to the outskirts of Woodville.
49. A design speed of 110km/h has been adopted for the main alignment. The design speeds for local roads are dependent on the existing speed environment and will be determined during the detailed design phase of the Project on a case-by-case basis.
50. Near-continuous wire rope barriers are proposed along the central median to separate oncoming traffic and along the roadside – this results in limited opportunities for people to cross the corridor (e.g. turn right), which is reduced by the emergency crossover points discussed below. More rigid roadside barrier systems may be necessary in some circumstances, such as across the new Manawatū River Bridge where a TL5 barrier (concrete base and steel roll bar) will be provided.
51. Emergency crossover points in the median barrier will be provided at appropriate locations to allow emergency vehicle U-turn movements. Sealed maintenance access areas will be provided behind the barriers to provide

safe access and parking for maintenance activities outside of the carriageway.

52. No barriers are proposed on local roads.
53. Separated walking or cycling facilities are not specifically provided for by the Project, although it is anticipated that the shoulder width and bridge widths will be sufficient to accommodate cyclists. For the purpose of this SIA it is understood that the primary cycle route between the western and eastern ends of the Manawatū Gorge will continue to be via the Pahiatua Track, which is the currently identified as part of the New Zealand Cycle Trail Touring Route.⁴ It is also expected that, while there are currently very low levels of usage of Saddle Road, due to the volume of traffic and road configuration, Saddle Road will revert to a suitable cycling route once the new road is constructed.⁵ Similarly, the Manawatū Gorge walking track is expected to remain as the primary walking route between the western and eastern ends of the Gorge.
54. The Project will include rest (or viewing) areas adjacent to the east and west bound lanes. The locations will be determined as part of detailed design and will likely be provided in conjunction with maintenance service areas.

METHODOLOGY

Preparation of the SIA

55. The preparation of the SIA has sourced information from:
 - (a) documents describing the business case process and associated specialist reports;⁶
 - (b) plans showing the Project corridor and descriptions of an indicative construction methodology;
 - (c) district and local plans, strategies and legislation which explain the particular characteristics of Manawatu-Wanganui Regional Council ("**Horizons**") and the three territorial authorities within whose districts the Project is located;

⁴ The New Zealand Cycle Trail – Pahiatua Road forms a 10km part of the Tararua Traverse Heartland Ride which is part of the New Zealand Cycle Trail: <https://www.nzcycletrail.com/explore-trails/>. Currently the 10km section on Pahiatua Road is closed due to the increased volumes of traffic since the Gorge closure.

⁵ 'Revert' in this sense refers to the effect of the Project restoring Saddle Road to a similar environment (pre-Gorge closure).

⁶ Manawatū Gorge Alternative Detailed Business Case including the Multi-Criteria Analysis ("**MCA**") assessment and social and environmental assessment, Appendix F Transport Assessment, Appendix H Manawatū Gorge Alternative Consultation Summary Report and Appendix O Draft Manawatū Gorge Property Acquisition Strategy.

- (d) Statistics New Zealand data for the region and local communities;
- (e) public feedback provided during the consultation process carried out by the NZ Transport Agency during the 'long list to preferred option' phase;
- (f) observations during a site visit of the proposed corridor and local communities;
- (g) discussion with community members and other attendees at the consultation events run by the NZ Transport Agency (all attended by either Jo Healy or Amelia Linzey) on 19, 20, and 21 July 2018 (in Ashhurst), 25 July 2018 (in Woodville), 26 July 2018 (in Palmerston North), 31 July 2018 (in Dannevirke), and 1 August 2018 (in Pahiatua)⁷;
- (h) feedback forms provided by members of the public during the above consultation process and consultation material as summarised in Part F of Volume 2 'Supporting Material'⁸; and
- (i) the transport and noise assessments for the Project, as referred to above.

56. The bibliography contains a more detailed list of the documents that were reviewed and used to assist in the development of community profiles and evaluation of this SIA.

Social Impact Assessment Framework

57. SIA is the most common framework used in New Zealand and internationally to analyse, monitor and manage the potential social consequences of development. The methodology used for this SIA is based on the matters provided for in the International Association of Impact Assessment Guidelines, and also considers the NZ Transport Agency's Social Impact Guide 2016.⁹ It then draws these frameworks together and identifies the specific social context matters I consider relevant to this Project (being the four headings identified in paragraph 61 below).

⁷ We consider attendance at the various open days was good to high (particularly in Woodville and Ashhurst). These events provided an open discussion on the scale of the project, delivery timeframes and potential construction issues (with noise and transport specialists also available at some events). I consider issues were well canvassed and a range of views were presented, including potential social impacts and consequences of the Project. I acknowledge that attendance at the consultation events was disproportionate to older residents in the community and under-represented in youth. In my experience this is common in engagement processes.

⁸ It is noted that we provided input to the questions asked in the feedback and response forms.

⁹ Social impact guide. NZ Transport Agency, September 2016. Retrieved from file:///C:/Users/keg1/Desktop/16-243-People-and-place-state-highway-social-impact-guide-2017-FINAL.pdf.

58. This SIA draws from the social impact matters described in the International Association of Impact Assessment Guidelines. The International Association of Impact Assessment Guidelines describe social impacts as an impact arising on one or more of the following functions and processes of a community or social system:¹⁰
- (a) People's way of life – how they live, work, play and interact with one another on a day-to-day basis.
 - (b) Their culture – their shared beliefs, customs, values and language or dialect.
 - (c) Their community – its cohesion, stability, character, services and facilities.
 - (d) Their political systems – the extent of 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.
 - (e) Their environment – the quality of the air and water people use, the availability and quality of the food that they eat, the level of hazard of risk, dust and noise to which they are exposed, the adequacy of sanitation, their physical safety, and their access to and control over resources.¹¹
 - (f) 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.
 - (g) Their person and property rights – particularly whether people are economically affected, or experience personal disadvantage which may include a violation of their civil liberties.
 - (h) Their fears and aspirations¹² – their perceptions about their safety, their fears about the future of their community, and their aspirations for their future and the future of their children.

¹⁰ International Principles for Social Impact Assessment 2003 – SIA principles – Frank Vanclay.

¹¹ It is acknowledged that other reports provide assessment of the potential impacts and effects on this physical environment and this SIA considers how these potential changes may impact on people's relationship with or association to this environment.

¹² In accordance with the NZ Transport Agency Social Impact Guidelines 2016, note that Resource Management Act 1991 case law indicates that community perceptions, including fear, should only be given weight to if they are reasonably based on a real risk (*Shirley Primary School v Telecom*, 1998). Where communities are expressing fear of an effect that is not based on a real risk, the NZ Transport Agency's preferred approach is to report on this, acknowledging the concern but also the limitations of this as an impact. It is acknowledged that in many instances such fears are based on misunderstanding of potential effects and therefore the NZ Transport Agency also recognises the importance of community engagement tools to address such issues.

59. In addition, this report has taken into consideration the NZ Transport Agency's Social Impact Guide 2016, which specifically notes the following potential social consequences associated with changes to transport networks:

- (a) Access and accessibility – changes to transport patterns and movements, including how people move about and connect by active transport, public transport and private vehicle;
- (b) Social connectedness;
- (c) Community severance;
- (d) Changes to facilities; and
- (e) Changes to local movement patterns.

Potential social impacts

60. Acknowledging the guidelines and consequence frameworks set out above, a number of potential social impacts from the Project have been identified in undertaking this SIA. Following an analysis of the Project and the community context, the potential impacts from this Project this SIA considers are as follows:

- (a) **impacts on way of life** – how people carry out and get to their daily activities such as work, leisure and domestic activities including consideration of access to and between communities and places/centres where people live, work and play;
- (b) **impacts on community cohesion** – connectivity between people including potential impacts relating to severance of communities and loss of communities (through the physical impact/land take of the Project);
- (c) **impacts on sustaining oneself** – how people sustain themselves both financially (such as business operations from land) and by providing for themselves in other ways (such as growing food), including the viability and feasibility of economic production/activity in areas where people live and work; and
- (d) **impacts on the quality of the environment** – this includes people's well-being (related to changes to the environment), sense of place and identity and changes to the character and amenity of living environments and character of communities.

61. The SIA process has used these matters to consider the potential social impacts of the transport corridor options, in the context of:
- (a) the existing community;
 - (b) the nature of the proposed works; and
 - (c) the potential consequential social changes anticipated from the construction and operation of the Project.

Methodology overview

Introduction

62. The methodology undertaken for this SIA is summarised as follows:
- (a) **Step 1** – Scoping and contextualisation – obtaining an understanding of what is proposed, geographical areas and the demographic context, including review of material collected and collated in earlier phases of the Project (acknowledging this information was not collected by the authors of this report);
 - (b) **Step 2** – Information gathering – community open days, site visits and confirming community profile understanding through review of demographic and community vision/plan processes (e.g. what the community looks like now and the changes and plans community members have for the future);
 - (c) **Step 3** – Assessment of potential social impacts – using the information obtained in steps 1 and 2, the assessment of potential impacts is undertaken to determine the scale, extent, distribution and duration of potential social impacts; and
 - (d) **Step 4** – Recommendations for mitigation – using the assessment in step 3, consider the requirements to avoid or mitigate the identified impacts and make recommendations.
63. While this SIA has focused on an assessment of the Project (the subject of the designations being sought), in preparing this SIA, I have undertaken a review of the documentation prepared in the options assessment process, which is summarised in the Detailed Business Case and in Part E of the AEE. While I was not specifically involved in the long-list or short-list option evaluation, I make the following observations, inasmuch as they demonstrate

how consideration of social impacts has assisted in defining the Project:

- (a) A risk-based assessment of social and environmental effects has been reported in the Detailed Business Case, which included specific consideration of potential social impacts and outcomes of the options, concluding that there was an overall minor positive effect identified for Option 3, which is the subject of the designation;
- (b) There was a long-list options assessment process, which assessed 18 options against an MCA (multi-criteria assessment) that included social impacts; and
- (c) There was a short-list options assessment process, which documented assessment of the four short-list options against 16 environmental and social criteria. All four options were identified as having the potential to create substantial adverse effects, including potential adverse social effects. With specific reference to the potential social effects, Option 3 was considered to have similar potential adverse effects to Options 1 and 2, but lesser scale of adverse effects than Option 4.

64. I was not involved in this phase of assessment of potential social impacts. Notwithstanding this, I consider the above demonstrates that there has been an evaluation of social impacts in various stages in the Project, and that such information has informed decision-making processes.

Geographical extent

65. Following analysis of the proposed designations for the Project and the surrounding area, three geographical extents are considered relevant to the assessment:
- (a) **regional scale:** the greater region dependent on SH3 for traversing over the Ruahine Ranges;
 - (b) **local scale:** the local communities impacted by the proposed corridor, namely Ashhurst and Woodville; and
 - (c) **Project extent:** properties within or adjacent to the proposed corridor (e.g. affected landowners and neighbours).

Rating

66. The assessment of potential social impacts is considered as either **positive** or **negative**, depending on whether the Project will either enhance or detract from the community values, social processes, or social infrastructure. It is

noted that understanding community values and social processes has included considering the plans and outcomes described in the Long Term Plans of Horizons and the Manawatū District, Tararua District, and Palmerston North City Councils, and specifically their visions on how the districts will grow or other development plans.

67. In cases where potential adverse impacts have been identified, the opportunities for these impacts to be mitigated by Project design and implementation of management and/or mitigation strategies have been considered; these are discussed below.
68. The scale of impact is identified as either very low (negligible), low, moderate, high or very high. This assessment is made in consideration of both the assessed duration and the scale of the impact relative to the existing environment (in other words the degree of change from the existing condition). The following provides an overview description of the assessment scale:
 - (a) **Very low (negligible):**
 - (i) Short/temporary duration (temporary e.g. weeks/months);
 - (ii) Small extent of impact on the community being considered (e.g. less than 10% of community extent); and
 - (iii) Very low or negligible level or severity of impact (the degree of change anticipated to the community system, process or value identified in the community profile assessed at a community level¹³);
 - (b) **Low:**
 - (i) Transitional duration (e.g. months or for periods of construction activity);
 - (ii) Small to medium extent of impact on a community (e.g. between 10% and up to 50% of a community impacted – factoring severity); and
 - (iii) Low level of severity of impact (there is low degree to which it will affect the community systems, processes and values identified in the profile);

¹³ It is important to note that the SIA does not attempt to account for all 'individual' impacts. As such, it is acknowledged that different people within a community will experience a project and the impacts of a project in different ways. These individual issues are an important consideration for any project and are most appropriately considered through individual submissions from those parties.

- (c) **Moderate:**
 - (i) Transitional to long-term duration (e.g. months to years; impacts that will extend over and throughout a construction period or beyond);
 - (ii) Medium scale or extent of impact for community (e.g. likely to impact half or more of an identified community extent); and
 - (iii) Low to moderate level of severity of impact;
- (d) **High:**
 - (i) Long-term duration (e.g. years to permanent impact);
 - (ii) Medium to large scale extent of impact for community (e.g. likely to impact more than half of an identified community extent); and
 - (iii) Moderate to high level of severity of impact (the degree to which it will affect the community systems, processes and values identified in the profile);
- (e) **Very High:**
 - (i) Long-term duration (e.g. more likely to be a permanent impact);
 - (ii) Large extent or scale of impact for community (e.g. most of a community is likely to experience the impact); and
 - (iii) Significant severity (e.g. is likely to result in major change to the community system, process or value identified in the community profile).

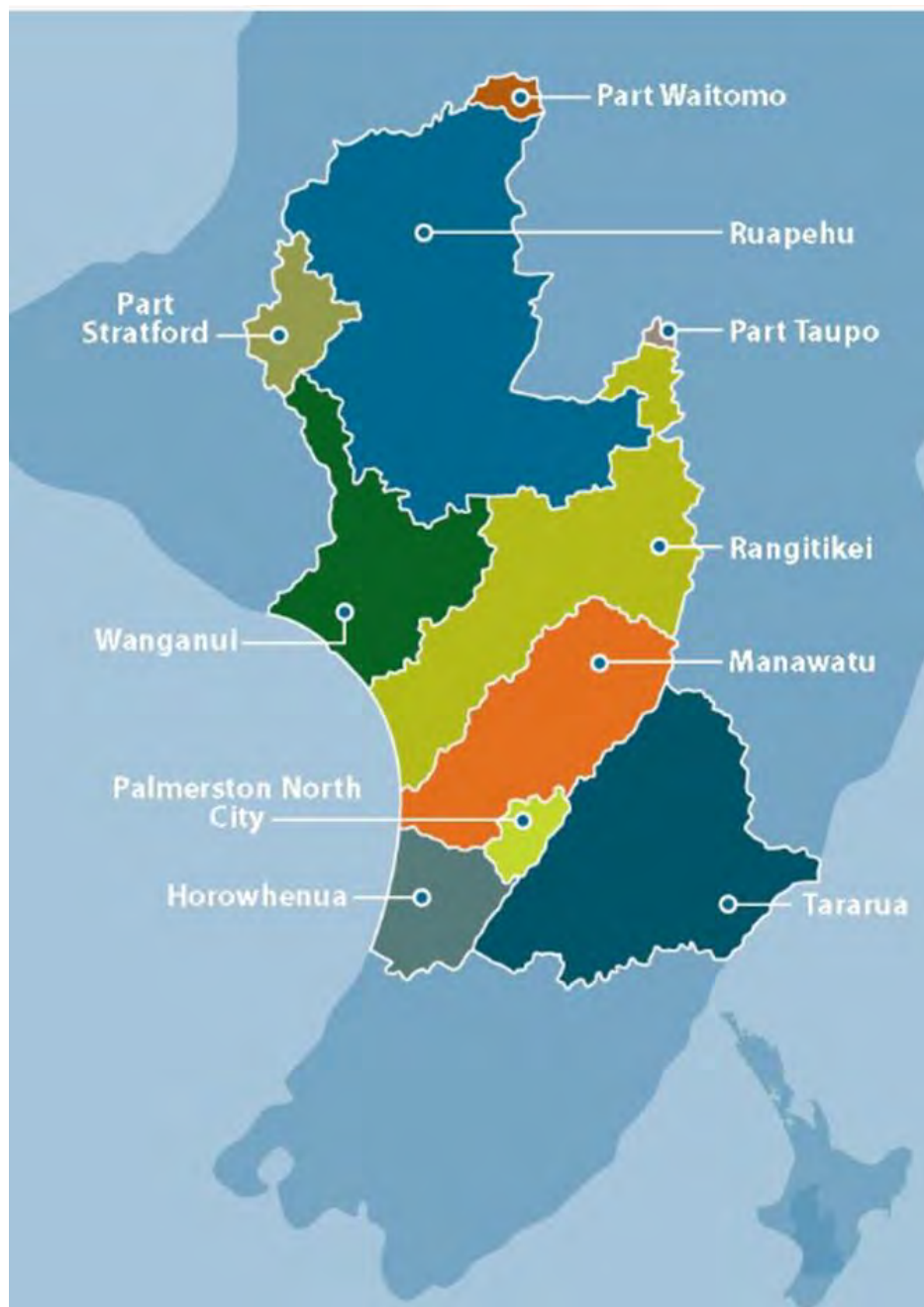
69. It is important to set out clearly, particularly in the context of this Project, that the SIA report evaluates the potential social effects of construction and operation of the Project in the context of the social effects being experienced in the existing environment. Social outcomes and processes are naturally dynamic, and there can be a number of social effects being experienced by a community in an 'existing environment' (e.g. population growth resulting in housing demand and pressure on vulnerable communities, or conversely population decline resulting in weakening community cohesion or detracting from sense of place). In respect of this Project, it is acknowledged that the closure of the Manawatū Gorge route and resulting alternate use of Saddle Road has had adverse social impacts that are still being experienced by the community (locally and regionally). This SIA report considers the incremental changes to these social conditions arising from the Project.

COMMUNITY PROFILES

Regional

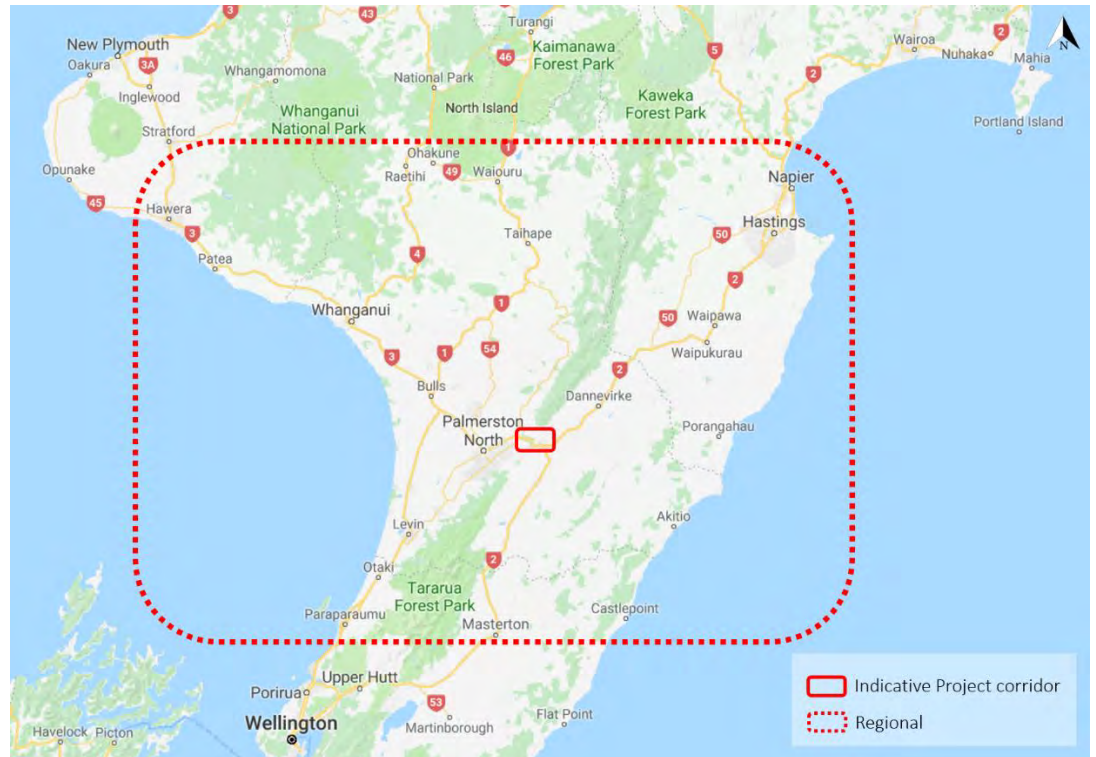
70. The Project traverses and connects three districts: Palmerston North, Manawatū and Tararua. Each of these is represented by a district council, and Horizons has functions in respect of the region as a whole. At a larger scale the Project provides connections east to west and west to east for the lower North Island.
71. The Horizons Region covers an area of over 22,200km² (see Figure 3 below) with over 240,000 people residing in the region.

Figure 3 Horizons Region. Source: Horizons Regional Council



72. Due to the large extent of the Horizons Region and the location of the Project, the regional assessment and description of existing environment will focus on the three districts (Palmerston North, Manawatū and Tararua), and the surrounding areas that are dependent on SH3 (including current alternate routes) to reach the east or western section of the lower North Island (see Figure 4). These districts stretch across the North Island from the west to east coast and are distinguished by the Tararua and Ruahine Ranges which traverse the centre of the region.

Figure 4: Regional Geographic Extent. Source: Modified from Google Maps



73. Of particular note within this region are the communities located around the alternate Pahiatua Track, including Ballance. Currently these communities have experienced an increase in traffic due to the Gorge closure, and safety issues are occurring particularly when short-cuts are taken by heavy vehicles on Ballance Valley Road and Post Office Road past the Ballance Primary School.
74. As of the 2013 Census, this combined area of Palmerston North, Manawatū District and Tararua District had a population of 124,340 residents, of which 64% live in Palmerston North city itself. Outside of Palmerston North the areas are predominantly rural with smaller cottage industries and local town services. Palmerston North serves as an employment, education (secondary and tertiary), retail, and specialist health services hub for the region.
75. Feedback from open days indicates that traversing the Ranges (both historically via the Gorge, now using the existing alternate routes of Saddle Road and Pahiatua Track, and in future with the Project) is a daily occurrence for many in relation to employment, business operations and education. In addition, the corridor was identified as a key route for social connections (family and friends), recreation (recreational areas and sporting competitions), food and other retail shopping and accessing health services. The route connects the towns on either side of the Ranges, creating a wider interdependent community network.

76. Te Āpiti – Manawatū Gorge is a landmark for the area and a location of many tourism and recreational opportunities, including walks, mountain bike trails (Te Ara o Mahurangi and Windfarm Ride), horse trekking and jet boating. Reserves at both ends of the Gorge offer camping and safe swimming spots.
77. Visitors can explore this unique and dynamic example of geomorphology that forms the western entrance to Woodville, by jet boat, kayak (a grade 2-3 river), or vintage steam train, or by experiencing the 4 hour Manawatū Gorge walking track along the ridges high above the road level.
78. Palmerston North City Council adopted a 10 year Plan 2018-28 on 25 June 2018. The Manawatū Gorge replacement route is recognised in the Plan as one of two high-priority government transport projects on which the district is reliant that will *“enable freight to move through the region, ease congestion and make the city more liveable”*.
79. The vision stated in the Plan is *“Palmerston North: Small city benefits, big city ambition”*. Goal 1 in the Plan aims at fostering an innovative and growing city which identifies taking advantage of opportunities in new and developing areas to foster innovation and entrepreneurship and fuel sustainable growth, prosperity and wellbeing. The Council has a target of 12,000 more jobs in Palmerston North by 2028, which will contribute to achieving an innovative and growing city that has sustainable growth, prosperity and wellbeing. This vision and planned growth is relevant to the SIA as it assists in understanding community aspirations and future plans.
80. At the time of writing the SIA a review of available rental accommodation websites showed on average approximately 80 rentals were available in Palmerston North, 10 in Manawatū and 10 in Tararua. QV Rental Analysis (2018) shows that Manawatū District has 126 rentals, Palmerston North has 688 rentals and Tararua has 55 rentals (rental numbers are based on bonds lodged). Lettings from 2017 to 2018 in Palmerston North have a monthly range in the order of around 80 and 200 properties (not all areas of Palmerston North are captured in these statistics)¹⁴. This demonstrates relatively high rental turnover.
81. The Statistics New Zealand Commercial Accommodation Monitor (May 2018) reported that there were approximately 88 accommodation facilities (78

¹⁴ Data is sourced from Landlord – For Kiwi Property Investors (<https://www.landlords.co.nz/housing-statistics/rental-graphs.php>) a commercial website providing rental market graphing in particular tracking the number of letting per month.

motels and hotels) available in the region with a capacity of approximately 70,000 (48,880 for motels and hotels) and an occupancy rate of 40%.

Local

Ashhurst community

82. Ashhurst is a small satellite community located 14km northeast of Palmerston North. The town is located at the base of the Ruahine Ranges, beneath Wharite Peak. The town had a population of approximately 2,800 at the 2013 Census, which was an 8.2% increase since the 2006 Census. It makes up 3.5% of the population of the wider Palmerston North district.
83. Consultation feedback reported that many moved to Ashhurst for a quiet lifestyle and community feel with ease of access to Palmerston North City for all major services and amenities. Prior to the closure of the Gorge, travelling through Ashhurst to reach Saddle Road was an alternate route traversed by approximately 6% of daily east-west trips over the Ranges. Currently approximately 80% (6,080) of east-west trips use Saddle Road and traverse through Ashhurst.

Census information

84. At the time of the 2013 Census,¹⁵ the following key demographic characteristics of the resident population of Ashhurst are noted (for context these are reported relative to Palmerston North city (i.e. the wider district) and/or New Zealand population overall):
 - (a) The median age was 36.8 years (compared with 33.8 years for Palmerston North city). In the overall age structure, approximately 13% of people were aged over 65 years, which is the same as the overall total for Palmerston North. However, the community does have a greater percentage of youth with around 25% of people aged under 15 years, compared with 20% for all of Palmerston North city.
 - (b) The most common ethnic groups in Ashhurst were European (90%) and New Zealand Māori (14%) (percentages do not add up to 100% as people identify with more than one ethnic group). The percentage of European is significantly greater than Palmerston North city (79%, which reflects that increased ethnic diversity in urban Palmerston North).

¹⁵ At the time of preparing this report data for the 2018 Census was unavailable.

- (c) 76% of people aged 15 years and over in Ashhurst had a formal qualification (slightly lower than the district), and 14% of people aged 15 years and over held a bachelor's degree or higher as their highest qualification.
- (d) The unemployment rate was 5% for people aged 15 years and over (slightly lower than Palmerston North city). The most common occupational group was 'professionals'.
- (e) For people aged 15 years and over, the median income was \$29,000. 23% of people aged 15 years and over have an annual income of more than \$50,000, with 36% having an annual income of less than \$20,000. Annual individual incomes in Ashhurst are slightly higher than for the district overall, with fewer people (as a percentage) earning less than \$20,000 per annum.
- (f) Couples with children make up 44% percent of all families, while couples without children make up 38% of all families. One-family households make up 73% percent of all households (higher than the district overall). One-person households make up 23% of all households (slightly lower than the district overall). The average household size is approximately 3 people.
- (g) Home ownership rates are higher for Ashhurst and rentals are equal, relative to the district. For example, 77% of dwellings were owned (or held in trust) by residents in Ashhurst, compared to 62% for the district (which may reflect Palmerston North city's higher student population). For households renting the dwelling in which they lived, the median weekly rent paid was \$250 for both areas.
- (h) There were 202 business locations (geographic units) in Ashhurst, which was a decrease of 7% from the year ended February 2006. There were approximately 340 paid employees in Ashhurst, mainly working in education, agriculture, construction, manufacturing and accommodation and food services. This a 6% increase from 2006.

Amenities

85. Horizons provides a bus service between Ashhurst to Palmerston North which runs four trips (both ways) on weekdays and once on Saturday. Ashhurst has a local primary school, kindergarten and play centre. Secondary and tertiary education is available in Palmerston North city.

Residents are required to travel outside of Ashhurst to places such as Palmerston North to access primary and specialist health services.

86. Community facilities include a library, churches, aquatic centre, sports grounds, Ashhurst Domain and community centre. Ashhurst is an active community with a variety of community organisations and resources. It has an annual music festival and community markets. It has limited retail and commercial services, with the main employment opportunities and retail services (including supermarkets) being accessed outside Ashhurst.
87. According to the Palmerston North City Council Long Term Plan 2018-2028, sustainable growth (industrial and residential) is planned for the area. The residents of Ashhurst have expressed a desire to remain a separate satellite suburb of Palmerston North that retains a peaceful village-like environment.

Woodville community

88. Woodville is a small rural village within the Tararua District. The population of Woodville was approximately 1400, as at the 2013 Census, with less than a 1% increase since 2006 Census. Woodville has approximately 8% of Tararua District's population. Currently it is approximately 31km (via Saddle Road) to 38km (via Pahiatua Track) from Palmerston North. Woodville is located at the intersection of SH2 and SH3. The main street is a thoroughfare for many travellers within the region, and commercial and retail opportunities are focused around this street. Beyond the main street is a peaceful rural environment with the 'city amenities' nearby.
89. The Woodville community is a more rural land use community than that of Ashhurst (which has a higher proportion of residents commuting in a more dormitory suburb of Palmerston North) and this is (at least in part) attributable to the travel distances between this community and Palmerston North. During consultation, a number of residents identified the Manawatū Gorge as an important environmental and social 'separation' from Palmerston North and their commute or travel through this as an important 'gateway home'. Others (fewer in number) expressed a contrary view, and identified that the Gorge had always been 'unstable' and considered it more as an ongoing risk or potential threat to their safety and wellbeing.
90. The Tararua District Council Long Term Plan 2018-2028 anticipates a modest growth in households over the next 30 year period (driven by some initial population growth over next 10-15 years and then as population growth declines a levelling of housing demand). A town centre upgrade is noted in

the Long Term Plan, as an initiative to attract more visitors to Woodville, adding to its vibrancy and sustainability. A desire was also expressed to attract more residents by becoming a desirable residential location for people working in Palmerston North.

Census information

91. At the time of the 2013 Census, the following key demographic characteristics of the resident population of Woodville are noted (for context these are reported relative to the Tararua District and/or New Zealand population overall):
- (a) The median age was 46 years (comparative to 41 years for Tararua District), potentially reflective of the older rural population in the district retiring to the local rural towns. This is also reflected in the overall age structure, with 20% of people aged over 65 years, compared with 17% of the total Tararua District population. The community has 20% of people aged under 15 years, compared with 22% for all of Tararua District.
 - (b) The most common ethnic groups in Woodville were European (82%) and New Zealand Māori (25%) (again, percentages do not add up to 100% as people identify with more than one ethnic group). The percentage of European is slightly less than the district (82% compared with 85% for the district) and the Māori population was slightly higher (25% compared with 21% for the district).
 - (c) 59.4% of people aged 15 years and over in Woodville had a formal qualification (slightly lower than the district), and 7% of people aged 15 years and over held a bachelor's degree or higher as their highest qualification.
 - (d) The unemployment rate was 11% for people aged 15 years and over (over 4% greater than the district rate of 6%). The most common occupational group was 'labourers'.
 - (e) For people aged 15 years and over, the median income was \$20,500. 14% of people aged 15 years and over have an annual income of more than \$50,000, with 49% having an annual income of less than \$20,000. Annual individual incomes in Woodville are lower than for the district overall, with fewer people (as a percentage) earning more than \$50,000 per annum.

- (f) Couples with children make up 29% percent of all families, while couples without children make up 45% of all families. One-family households make up 63% percent of all households (slightly lower than the district overall). One-person households make up 31% of all households (slightly higher than the district overall). The average household size is two people.
- (g) Home ownership rates and rentals are slightly higher for Woodville relative to the district. For example, 72% of dwellings were owned (or held in trust) by residents in Woodville, compared to 67% for the district. For households who rented the dwelling that they lived in, the median weekly rent paid was \$160 (compared to \$150 for the district overall). This higher rental is noted against the lower annual median incomes.
- (h) There were 109 business locations (geographic units) in Woodville, compared with 2,940 for all of Tararua district. This is a decrease of 6% from the year ended February 2006 for Woodville. There were 220 paid employees in Woodville compared with 6,130 for all of Tararua district. This is an increase of 5% from the year ended February 2006 for Woodville.

Amenities

92. Woodville provides many support services such as doctors, plumbers, electricians, builders, contractors and automotive repairs. Retail includes cafes, speciality retail outlets, and a local grocery store. A supermarket and larger commercial and retail services are available in Dannevirke and Palmerston North. Woodville Primary Health Services has limited hours; outside these hours residents are required travel to other local towns and, for any specialist care, to Palmerston North. Within Woodville there is a primary school (Woodville School), play centre, and Kōhanga Reo, and there are two other primary schools in the vicinity of Woodville (Kumeroa/Hopelands and Papatawa). Secondary education is available at Tararua College in Pahiatua, or alternatively in Palmerston North. Community facilities include a library, local marae, churches, council offices, recreation and sports grounds and a community centre. It is an active community with a variety of community organisations and resources.

Project extent

93. The proposed designation corridor for the Project traverses through rural land, primarily farming land. Other activities in this area include Meridian's Te Āpiti wind farm and AgResearch's fertiliser trial site at the Ballantrae research farm. All land requirements reflect only a portion of any total property impacted (e.g. they are partial land takes). One residence is within the proposed corridor and a small number (fewer than ten) are adjacent to it.
94. Both ends of the Project reconnect with SH3. Two residences at the western end (on Napier Road near the SH57 intersection) are currently on SH3 (a strategic route); these people currently experience relatively low levels of traffic due to the closure of the Gorge (as this section of SH3 is not experiencing its traditional traffic volumes due to traffic diversion onto Saddle Road).

REGIONAL SOCIAL IMPACT ASSESSMENT

95. Against that background, the assessed social impacts of the Project are set out below for each geographical scale (Regional, Local Community and Project Extent). This assessment considers social impacts during both the construction and operational phase.

Construction period

96. Many people in the region have already undergone significant change in the way they carry out their daily activities, arising from the closure of the Manawatū Gorge section of SH3. During construction of the Project there is potential for further disruption to traffic movements on Saddle Road, due to its use by HCVs and other Project-related vehicles. Any further delays on Saddle Road have potential to exacerbate the existing impacts under the SIA heads of:
 - (a) Way of life;
 - (b) Sustaining oneself; and
 - (c) Social connectedness.
97. For example, increased journey times on Saddle Road would impact on daily commutes for work and education, business operations dependent on this route, and the ability for social connections across the region. In addition, it has potential to have further impacts on people's general access to health services operating out of Palmerston North (e.g. day-to-day medical needs,

not emergency needs). People in communities spending longer times in travel would either have consequential reduced time at home with family, and increased fuel and business costs, or may reduce travel/trips (e.g. choosing not to engage in community or social activities due to the actual or perceived connectivity issues) and thus increased isolation.

98. Overall, it is considered that the potential adverse effects will be experienced by some parts of the region, with reductions in accessibility over the construction period. However, when considered in the context of the existing environment (with the Manawatū Gorge route closed), this is not considered a significant impact; it will result in some additional delays and disruption to travel, rather than a 'severance' or loss of access¹⁶. I note that there are approximately 7,600 people traversing the Ruahine Ranges per day (and the adverse social impacts identified above will only be experienced by some of these users). Given the relatively small scale of this impact, no further specific assessment has been made to further quantify those that may experience reduced accessibility or connectivity as an adverse social impact over the construction period.
99. The construction of the new bridge across the Manawatū River will take place within the area of the Manawatū Gorge Car Park and entrance to the Gorge walk. There is the potential for temporary closures (I am advised by the NZ Transport Agency that this would be in the order of days only) or other disruption of the parking area (and potentially for access to this walkway) to occur at times during construction. Any limitations in access to this facility will have an impact on people's way of life, particularly in respect of recreation opportunities. However, on the basis that the design parameters include a commitment to maintain access at nearly all times, I consider this potential impact only minor.
100. The region has experienced uncertainties over the Manawatū Gorge for decades and many participants in the open days expressed to us the views and opinion that action has been delayed and information on future plans has been limited to this point. While views about the Project overall were generally highly positive, participants expressed concern about potential adverse effects caused by the length of time taken to construct it (and the potential for further delays), and how the region will manage the current

¹⁶ This impact acknowledges but does not include the socio-economic impacts being experienced by the regional community as a result of the Manawatū Gorge closure.

inconveniences (and consequential social impacts being experienced from these) for that length of time.

101. Conversely, the construction phase is also viewed as a potential avenue to meet business and employment aspirations for some in the region. For example, workers and business owners saw opportunities to provide for socio-economic wellbeing through both direct employment opportunities and opportunities in associated areas such as accommodation, retail, and other service industries. The type of jobs infrastructure generates can be described as direct jobs (those employed on the job), indirect jobs (those employed in areas related to materials supplying the job) and induced jobs (jobs or economic gain from increased spending of the employees and firms associated with the job).¹⁷
102. Drawing from other project experience, a report by Market Economics Limited (2017) for the NZ Transport Agency on the Ōtaki to North of Levin project indicated that the socio-economic effects for the region during construction can be realised, but this is dependent on the total budget, spatial distribution of expenditure and timing of spend. Levels of local employment, local company involvement, sources of materials, and location and travel patterns of employees will also influence the socio-economic benefits.
103. Factoring the above, I make the following observations:
 - (a) There are a number of major construction projects recently at, or nearing completion, which are likely to result in increased capacity of employment (people) in the construction industry (e.g. Papatawa Realignment and Peka Peka to North Ōtaki , and Whirokino Trestle and Manawatū River Bridge (both due for completion in 2020));
 - (b) Notwithstanding the above projects, there has been an overall decline in construction employment (number of employees and percentage of employees) over the wider Horizons South East region between 2012 and 2017, as cited in the EY report prepared for the NZTA in respect of the short-list of options assessment.¹⁸ From this, I consider that activity which may increase construction employment activity will meet emerging and growing ‘gaps’ between employment and workforce.

¹⁷ Chapter 3 Estimating Economy-Wide Job Creation Effects – International Finance Cooperation - <https://www.ifc.org/wps/wcm/connect/f0be83804f7cdf68b7deff0098cb14b9/chapter3.pdf?MOD=AJPERES>

¹⁸ See Figures 7, 8 and 9 of the EY Report Manawatu Gorge Alternatives –Assessment of Wider Economic Benefits of the Shortlisted Options, prepared by NZ Transport Agency, 16 March 2018.

104. It is my view that the Project will have positive socio-economic outcomes for the Region. Although many of the specific employment and labour force outcomes are unknown for the Project at this stage, positive outcomes will predominantly be generated from the significant size of the Project, the anticipated duration of construction (more than 5 years), and the level of human resources required and location (not within easy commute of many other major cities). As a result of this activity, potential social benefits will include an improved ability for residents of the region to sustain themselves through employment opportunities and/or increased business activity. Also, there are potential way of life benefits as employment opportunities may allow residences to stay within the area for economic opportunities, rather than feeling it is necessary to seek opportunities outside the region.
105. While it is acknowledged that the quantum of these potential benefits are speculative at this stage, in my experience it is reasonable to conclude that these positive social outcomes will arise. I have been personally involved in construction projects where I have witnessed positive socio-economic outcomes for communities where construction projects are being undertaken. For example, for the Māngere Bridge community in construction of the Manukau Harbour Crossing (Auckland) and similarly for the MacKays to Peka Peka Project (albeit my personal involvement was more peripheral). In respect of Māngere Bridge, the construction activity provided local employment activity, but also more tangibly increased economic activity and vibrancy in the local Māngere Bridge town centre (particularly for food, service retail and similar business activities).
106. Given wider national concerns on availability and affordability of housing, I have given specific consideration to the potential impacts of the Project's construction activity on this. It is acknowledged that provision of accommodation for workers during the construction phase will increase demand for housing and other accommodation options in the region. A review of the rental availability undertaken at the time of our report preparation (looking at rental listings and turnover), projected employment growth, and amount and level of occupancy of hotels and motels indicates that the region has the capacity to absorb the influx of workers (on the assumption of the workforce numbers provided in the construction description for the Project). Furthermore, Palmerston North City Council has assumed high forecast population growth, and has planned sufficient zoning

capacity to accommodate this.¹⁹ In addition, capacity and the ability for mid- and longer-term use of motel accommodation may further ease potential pressure on the rental market if required.

107. While only anecdotal information, discussions with some attendees at the open days indicated that local business owners are already considering opportunities for provision of alternative accommodation options for workers associated with the Project (this is noted solely on the basis that there is a receptiveness and capacity to accommodate the growth, not as a necessary mitigation to address the potential demand for such growth). On this basis, I do not consider that the influx of workers over construction will result in any significant impact on housing/housing affordability across the region.
108. There are some areas, such as Ballance and residences adjacent to the Pahiatua Track, which may experience more traffic if users choose this route as an alternative to Saddle Road (which potentially will experience more delays due to construction traffic). While this is not a direct impact of the Project works, this consequential impact has the potential to result in some physical degradation to the condition of the road (increasing wear damage), increase congestion, and decrease the safety environment (particularly around the Ballance School and Ballance Valley Road). This has potential social impacts, such as reduction in the quality of the environment and changes to the way people live (such as driving rather than walking to school and potentially reducing trips outside the home for some people).

Operational phase

109. The Project will provide a transport route with improved safety performance over the existing Saddle Road and Pahiatua Track. The Project's safety rating is an average of 4 Star KiwiRAP standard, and it will also lead to reduced traffic volumes on Saddle Road and Pahiatua Track, which are less safe. It is forecasted that the Project will lead to a reduction of 108 deaths and serious injuries over a 30-year period²⁰. In addition to the important direct physical health and safety outcomes for the regional community this is also considered to have positive social impacts arising from the reduced social consequences from such events (e.g. wider community and socio-economic impacts).²¹

¹⁹ Palmerston North City Council Financial Strategy 2018 -2028.

²⁰ The forecasts given are based on the work done by the NZ Transport Agency for the Manawatū Gorge Alternatives Detailed Business Case.

²¹ The evidence base for this is well established. One example includes the Ministry of Transport paper from 2011: The Social Cost of Road Crashes and Injuries, June 2011 Update (ISSN 1173-1370).

110. The Project will also improve the resilience of the local and regional road network. The closed SH3 section (Manawatū Gorge) was vulnerable due to geotechnical/geological conditions resulting in frequent disruptions and eventual closure. The current alternate routes (Saddle Road and Pahiatua Track) are not designed for the current volumes of traffic and are experiencing road surface issues which require maintenance works. The re-establishment of a new corridor for SH3 will improve resilience, both in terms of the resilience of accessibility and the capacity of transport corridors for the anticipated volume of traffic, including slow crawler lanes to allow for breakdowns and management of accidents without the requirement of diversions.
111. From a social perspective, this increased resilience provides an opportunity for improved cohesion and connectivity (arising from the increased surety that such connections are available) and ability to plan daily activities involving this route with increased certainty.
112. A safe and resilient route, with the capacity to accommodate the type of vehicles traversing it, will improve daily commutes and the ease with which users traverse the Ranges. This will facilitate better access to social services and facilities, such as: education, employment and healthcare, and reconnection of the community (socially and recreationally). Again, this is a positive impact both in terms of social cohesion (at a regional scale) and improvements to people's way of life including less time spent commuting and more at home or on other chosen activities. It will also result in an improved environment in terms of the experience driving SH3 (versus Saddle Road and Pahiatua Track) resulting in decreased anxiety and improved wellbeing.
113. A report by Marketview for Kāpiti Coast District Council (2017) on the MacKays to Peka Peka Expressway has demonstrated that, once the project is operational, benefits continue in terms of increases in spending for towns within proximity of the road. I note that this report identifies benefits to Ōtaki Township and Raumati are reflective of the expressway joining back to existing roads in these areas. Within the Kāpiti district, spending is up across a range of store types including for bars, cafes, restaurants and takeaways, fuel and automotive, and durable goods.
114. While acknowledging the project-specific characteristics of the expressway in that review, it is my opinion that socio-economic benefits could be anticipated for the regional area of this Project resulting from improved connectivity to

Palmerston North, as the city provides many of these types of stores for the region. As such, the reliable journey times will have positive socio-economic consequences, both in terms of efficiency and reliability for businesses frequenting this route and savings in fuel costs. While not further quantified, on the basis of my discussions with residents (particularly regarding the negative social consequences of the loss of the Gorge Route) it is reasonable to conclude that the Project will improve the ability to plan for and operate businesses either side of the Ranges as a result of the improved reliability and resilience of the connection.

LOCAL SOCIAL IMPACT ASSESSMENT

Ashhurst

Way of life

Construction

115. Construction traffic using Saddle Road as a means to access the construction site is expected to traverse through Ashhurst (in a manner similar to existing traffic using the route). The anticipated increase in traffic through Ashhurst, particularly HCVs, has the potential to exacerbate current effects experienced by the community from the closure of the Gorge and use of Saddle Road.
116. Effects include disrupting the way community members move within the community (both by foot and vehicle) due to increased traffic volumes and changes in the road safety environment. Other activities will potentially be disrupted, such as recreating, travelling to school, and getting to and from work.
117. Increased traffic noise generated from the HCVs, in particular, has the potential to disrupt how people live within their homes, such as sleeping patterns and their ability to undertake other activities such as working from home. I rely on the assessment of Dr Chiles in respect of physical noise effects during construction.
118. In terms of the social consequences of construction activities, I consider these to be **low negative** potential impacts. This assessment considers:
 - (a) the medium-term duration of construction (some 5 years or more);
 - (b) the scale (I consider the impacts will be experienced by around half of Ashhurst's population, acknowledging the school and that community);and

- (c) the overall severity of the change, relative to the existing environment.
119. I conclude that the severity of impact on people's way of life will be low (noting however, that the effect on any one resident will depend on their specific location and circumstances). I make this assessment on the basis that the impact represents an incremental increase in disruption arising from construction activity, rather than a loss of connectivity, and in light of the impacts already experienced by this community with the traffic volumes using Saddle Road (the condition of the existing environment). I consider this adverse impact can be mitigated to reduce the impact of construction traffic; see below for further details.
120. Examples of the opportunities to mitigate such effects are the works already planned for existing road and centre improvements in Ashhurst. While these are not mitigating construction activities, they demonstrate the ability for local road works to address the adverse impacts on residents (safety, noise and accessibility issues). On this basis, to mitigate adverse impacts (discussed further in later sections of this report), I recommend management approaches for ongoing communication and processes to ensure response to issues as they arise.

Operational

121. Conversely, once operational, the Project will divert traffic out of Ashhurst. This will result in a 'reinstatement' of the patterns and way of life for the community to a condition similar to when the SH3 Gorge route was operational. Given the issues and concerns expressed by the community regarding the impacts of the diversion of traffic on this community, the potential social impact of this is considered to be **high positive** (again, noting this assessment is relevant to the existing environment, experienced since closure of the Manawatū Gorge route).
122. Some attendees at the consultation open days for the Project described this as living in a quiet community where it was safe and easy to travel by foot (to locations such as school and the Ashhurst Domain) and by car. In addition, in terms of living conditions within people's homes, the change in traffic volumes will facilitate better sleep and ability to carry out activities such as working from home.
123. I acknowledge that, between now and the time of operation (a period of over five years), there will be a number of changes to the community of Ashhurst. In particular, construction activity (and the increased workforce in the area)

has the potential to increase economic activity in Ashhurst. This activity is likely to be more reliant on the through-traffic currently diverted through Ashhurst (onto and from Saddle Road). While these elements are not part of the existing social environment, it is anticipated that there will likely be some 're-calibration' for those activities as construction ceases and the new operational movements are established. In my view, this is properly categorised as a period of social change (rather than either a positive or negative social impact).

Community cohesion

Construction

124. Connectivity within the community will potentially be further disrupted by increased construction traffic traversing through Ashhurst, particularly those living east of Salisbury Street. It provides a potential separation or some effective 'severance' resulting from increased difficulty traversing across this road, due to construction traffic. However, this needs to be factored in terms of the actual construction traffic volumes relative to the high volumes of existing traffic (over 7,600 per day) already using the route. In addition, Ashhurst residents' ability to connect to other communities east of the Ranges is potentially impacted by increased congestion on Saddle Road, which may include impacting community cohesion, for example as demonstrated by activities such as people coming together for weekend sports and visiting friends and family.
125. Although the duration of construction impact is recognised as medium (in other words it is not a short term effect), the severity (for the reasons set out above) and scale are considered to be at a lower level and therefore assessed as a potential **low** to **very low negative** impact.

Operational

126. The Project, once operational, will have a **low positive** impact on community cohesion (separating this from the higher positive impacts associated with way of life, which have been discussed above). These benefits are also identified as a result of the removal of a large proportion of traffic (including HCVs) from Salisbury Street and Cambridge Avenue through the centre of Ashhurst. While such traffic is considered a 'disruption' to accessibility and connectivity it has been considered less significant in respect of a severance to overall community cohesion.

127. Another positive outcome of the Project once operational is that it will facilitate a safe and reliable journey to the east of the Ranges to aid the ability to connect with other communities in the area. This may have some improved cohesion outcomes, improving connectivity for those with family and friends to the east of the Ranges (such as Woodville).

Sustaining oneself

Construction

128. Acknowledging the existing and potential disruptions to businesses that use Saddle Road, for the reasons explained above, activity generated from construction workers is likely to result in increased retail activity and use of services within Ashhurst, due to its proximity to much of the construction site. This benefit would be experienced predominantly by businesses within Ashhurst providing relevant services to construction workers, such as food and accommodation. Applying a 'balance' of impacts approach (with businesses relying on accessibility and connectivity potentially being disrupted), I consider this to be a potential **low positive** impact. Further, currently the community has a low current reliance on local socio-economic activity within Ashhurst, and relies instead on services and retail facilities in Palmerston North city which is a short commute distance. In my experience, it is reasonable to assume there may also be new businesses and opportunities for people to sustain themselves, arising from the increased economic activity associated with Project construction and particularly the influx of construction workers. While this opportunity is recognised, these new businesses are not part of the existing environment and as such specific impacts on these activities have not been further assessed.

Operational

129. Overall, this is assessed to be a potential **low positive** impact. This assessment considers the following factors:
- (a) That people in Ashhurst use private vehicle to travel to work, and the majority are commuting to Palmerston North, rather than to the east across the Ranges, and therefore will not experience the scale of positive effect relative to those east of the Ranges.
 - (b) The transition back to traffic diverted around Ashhurst and the loss of construction workers frequenting services within Ashhurst (following construction activity) will result in a transition back to a quieter retail

environment, which may be negative for some (particularly those businesses and employees of those businesses).

- (c) There is an improved ability for other existing service and supply businesses to have a wider commute area (e.g. east of the Ranges) that is safer and more resilient, which is assessed as a positive impact for these business owners.²²

Quality of environment

Construction

130. The current environment in Ashhurst incorporates impacts, since the Gorge closure, on the character and amenity value and health of residents (due to increase in traffic and, in particular, traffic noise). This includes the character of Ashhurst as a quiet, safe and peaceful village. This SIA focusses on assessing the existing environment (post-closure); in this respect, increased traffic volumes as a result of construction traffic will potentially exacerbate those elements of concern to residents at present. However, the Project is likely to generate minimal night traffic and changes will not be significant, compared to the existing disruptions. On this basis, it is assessed that these impacts are a **low negative** impact.

Operational

131. Diversion of traffic around Ashhurst due to the operation of the Project will have a **moderate to high positive** impact on the community. It will regain the quiet and peaceful character valued by the community, and residents will experience less noise therefore improving their well-being. I conclude this as a high benefit, for the following reasons:

- (a) While Saddle Road is a Major Arterial route, and therefore relatively high volumes of traffic can be expected to use it, traffic volumes have increased significantly since closure of the Gorge and this has been cited as having a significant impact on the quality of residential amenity and residential environment experienced by residents.
- (b) I note that the community consultation and engagement feedback has been strongly positive to the reversal of this situation and the values

²² It is understood from the traffic assessment, that approximately 35% of peak traffic flows over the Ranges are travelling west to east, rather than the converse dominant east to west movement. However, it is also noted that the population size on the west (including Palmerston North city) is significantly larger, so as a proportion of the overall population this is a far smaller accessibility movement.

the community places on getting 'their quiet residential community back'.

Woodville

Way of life

Construction

128. Woodville is already experiencing impacts on daily life when accessing employment, education and services (commercial, retail and health) west of the Ranges via Saddle Road. Currently disruptions include increased traffic and road closures due to maintenance and upgrades. Construction traffic using Saddle Road (dependent on direction) has the potential to slow traffic further, thus increasing the commute and reducing time spent at home. However, this is not likely to worsen the situation significantly from the existing environment, given that the anticipated increase in traffic from construction is low.
129. In addition, by the time construction commences it is likely that the current maintenance and upgrade works will have been completed, meaning that the community may then be experiencing fewer closures than they do currently.
130. Collectively, I consider this to be a **low negative** impact.

Operational

131. Conversely, the operation of the Project will provide a safer, more efficient, resilient and reliable connection to the west than the existing environment. This will ease journeys for work, education, recreation and access to health services. The potential impact is considered to be a **moderate to high positive** impact, arising largely from reduced time lost to travel and increased certainty in planning and travelling between Woodville and west of the Gorge. In addition, I consider the re-establishment of both the national (SH3) and major arterial route (as separate corridors) will improve resilience of this connection. This will also contribute to positive outcomes for people's way of life.

Community cohesion

Construction

132. The potential exacerbation of congestion and slow journey time on Saddle Road and increased journey time to use Pahiatua Track due to increase

construction traffic on Saddle Road provides a potential further separation of Woodville with communities west of the Ranges. This includes the way people connect, such as through weekend sports and visiting friends and family.

133. Although the duration of this impact is medium term (potentially the length of construction) the severity and scale are considered to be at a lower level and therefore assessed as a potential **low to very low negative** impact (noting this is assessed as a relative change, to the existing environment conditions).

Operational

134. The operation of the proposed corridor is anticipated to have a **moderate positive** impact for those in the community connected to the west as it will facilitate a safe and reliable journey to the west of the Ranges to aid the ability to connect with other communities such as Ashhurst and Palmerston North, creating improved cohesion between towns/cities within the region.
135. That said, the potential disruption to community cohesion and connectivity as a result of increased traffic volumes through the main street of Woodville is noted. On the basis that this corridor is already a key State highway route and that the township has established as a 'main street' area, I do not consider these potential cohesion impacts to be significant (they are more a disruption to connectivity and cohesion rather than a severance). On this basis, I consider the increased traffic flows through and along the main street of Woodville will be a **low negative impact**.

Sustaining oneself

Construction

136. Acknowledging the existing and potential disruptions to businesses that use Saddle Road and some loss of through-traffic, activity generated from construction workers is likely to result in increased service, supply and retail activity and use of services within Woodville due to proximity to the construction site. Over the construction period, this would largely be of benefit to those businesses within Woodville providing relevant services to construction workers such as food and accommodation. For these reasons, and given the relatively low business activity in Woodville currently I consider this to be a potential **low positive** impact. However, there is also potential for new business development in Woodville as a result of the increased busyness of the area (as I have identified for Ashhurst).

Operational

137. The transition back to most traffic travelling east traversing through Woodville has the potential to generate more activity (re-establishing some activities) within Woodville, and this has the potential to benefit retailers and local service businesses. However, from our assessment, some business activity was already declining in Woodville, even prior to the closing of SH3 through the Gorge (in particular it is noted that between 2006 and 2013 there was a 6% decline in businesses recorded by Statistics New Zealand business demographics), to around 110 businesses.
138. The improved ability to commute safely and reliably from Woodville west of the Ranges is likely to be positive for business owners reliant on connections to Palmerston North and may also increase the attractiveness of this area for some future residents (e.g. a population commuting to and from Palmerston North for work). Factoring these considerations in, I consider this is a potential **moderate positive** impact for the community's ability to sustain oneself.

Quality of environment

Construction

139. Construction of the Project is unlikely to change the quality of the environment within Woodville, be it in terms of its character, amenity value, or wellbeing of residents. Some residents have noted that the vibrancy of the town centre has changed since the closure of the Gorge route, and increased activity from construction workers may contribute to reversing this. Overall it is considered to be of **no impact**.

Operational

140. Many residents of Woodville traverse the Ranges daily to access Palmerston North. Historically the trip through the Gorge contributed to their sense of identity and offered high character and amenity value (it is noted while the Gorge was identified as a valued natural environment by others across the wider community, it was specifically some residents from the Woodville community that referred to it as part of 'their home' or the character of their community). The change has been experienced since the closure of the Gorge (e.g. it is a social effect of the existing environment), but will continue due to the Project bypassing the Gorge. Whilst not a significant impact (and

more a social opportunity) opportunities for mitigation of this are provided in the subsequent section of this report (Recommendations for Mitigation).

141. In addition, the new journey / route has the potential to provide an opportunity to connect to another part of the Ranges from the Gorge and there are opportunities to view the wider surrounds from along the proposed designation corridor to enhance this experience. The improved safety and resilience of the corridor will also enhance the environment and wellbeing for these users (e.g. the sense of safety and reliability for access along the corridor). I consider this will be a potential moderate positive impact on the community.
142. More locally, to the Woodville village, a new and safer journey experience and potential return of the vibrancy of the main street, due to increased activity from the operation of the Project. Noting the following in respect of businesses in Woodville²³:
- (a) 20% are retail trade;
 - (b) 16% are construction; and
 - (c) Accommodation and food services provide a further 12% of business activity.

On the basis of this data, I conclude the reinstatement of the 'main-street' has positive impacts for some (particularly those that value the business activity in this area). However, for others, the increased traffic volumes and associated changes to the amenity of the environment (e.g. for the local school) will be a potentially negative impact on the quality of the environment. On balance, and recognising the historic development of Woodville, I consider this to be a moderate positive impact.

PROJECT EXTENT SOCIAL IMPACT ASSESSMENT

143. This assessment considers the construction and operational impacts for residents within and along the corridor, in addition the loss of private land expected to be acquired for the Project (largely addressed through Public Works Act 1981 ("PWA") processes).
144. Dependent on the access routes chosen for construction, landowners, businesses and residents (of which there are few) may experience disruption

²³ Statistics NZ Business Demographics Data 2013.

to daily activities. In summary, land uses and activities within or adjoining the Project include the following:

- (a) Residential dwellings – rental and owner occupied (unquantified distinction);
- (b) Lifestyle blocks – where the principal purpose of the property is residential with a rural setting or outlook (but not necessarily as an activity which is the primary mechanism for sustaining oneself);
- (c) Pastoral land – grazing;
- (d) Research farm for field trials (1 activity);
- (e) Wind farm operation (1 activity);
- (f) Covenanted land - QEII National Trust; and
- (g) Natural bush, restoration areas.

145. The quantum of impacted properties is relatively few (e.g. approximately 20 residences are identified as adjoining or within 200m of the Project) and 10 properties directly impacted.

146. Potential social or 'way of life' and 'sustaining oneself' impacts include:

- (a) For operation of farms (including moving stock within and off the farm), potential restriction of access to driveways or parts of farms at times during construction. This may also impact on the ability to sustain oneself if people cannot operate their businesses effectively, and so will need to be managed with the landowner and/or business operator. Some of these considerations will be managed through property acquisition and lease processes of the PWA, and as such are not specifically considered further here.
- (b) For approximately 10 residents (including those on lifestyle blocks along the corridor) within proximity of the Project, changes to visual and audible amenities (as assessed by the reports from Dr Chiles (in respect of noise effects) and Mr Bentley (in respect of landscape effects)). The view will be interrupted by the road, changing a predominantly rural outlook, and new noises will be experienced from roading or intersection changes. This potential impact will be experienced by those people who have residences along the corridor or in proximity to the new intersections proposed between the Project and existing roads.

- (c) A potential impact on the quality of the environment and sense of place values for the residents discussed in point (b) above. While physical impacts, such as noise mitigation, can address some of the physical effects of the project, the wider change of character and quality of environment is recognised as a **low negative** social impact (due to scale of change and the scale of impact).
- (d) An increase of traffic for residents and lifestyle block residences on SH3 at each end of the Project, in contrast with the reduced traffic they are currently experiencing due to the Gorge closure. They will experience this increase of traffic and associated noise both during construction and operation of the Project. This will potentially be exacerbated for those in proximity to the roundabouts proposed, as they will require land take and will bring the road closer to some residents. This will potentially disrupt their daily activities and the quality of the environment around them. Whilst this outcome will be similar to the environment prior to the Gorge closure, I similarly consider this to be a **low negative** impact in comparison to the current environment experienced by these residents.
- (e) Loss and disruption to other business activity operating in the area, particularly the loss of business continuity (as is the case for the research and farm trials). While not specifically a 'social impact', it is recognised that this activity supports wider socio-economic operations and as such may have an indirect impact on the ability for people to sustain oneself. Given the low scale and indirect nature of this impact, it has not been further quantified.

147. While the potential physical impacts associated with visual and landscape changes and noise are addressed by other specialists (and specific mitigation measures are proposed in that regard), I also recommend that residents identified as affected are included in detailed design discussions around landscape and noise mitigation, as a means of mitigating these potential social impacts on their quality of environment and sense of place.

RECOMMENDATIONS FOR MITIGATION

148. I recommend the following measures be conditioned to manage and mitigate the identified impacts.

Community engagement and participation

Liaison

149. On the basis of the impacts identified in this SIA, I recommend that a management mechanism is put in place to provide a Project/Community Liaison Person. Such a person (or persons) would be appointed by the NZ Transport Agency (as part of the construction team) for the duration of the construction phase of the Project to be the main and readily accessible point of contact for persons affected by construction works.
150. This measure will assist to ensure that all parties affected by construction works have a single point of contact to a person reasonably available for on-going consultation on matters of concern s. In my experience, this provides a mechanism for people's concerns to be heard and where appropriate, acted upon. This means that disruptions caused by construction, and the consequential adverse impacts this may have on people's way of life, can be responded to and managed.

Communications Plan

151. Furthermore, to address the potential adverse effects associated with construction activities identified in this report (including impacts on people's way of life and how they value their environment and quality of that environment), it is recommended that a Communications Plan is prepared by the NZ Transport Agency prior to construction. Such a Plan would set out procedures detailing how the public, stakeholders, businesses and residents will be communicated with throughout the pre-construction and construction phases of the Project.
152. I recommend that the Communications Plan would include:
- (a) details of the Project Liaison Person, as well as means for these contact details to be found for stakeholders and the public (such as a website, and near the construction site) so that they are clearly visible to the public;
 - (b) a list of stakeholders, organisations, businesses and residents who will be engaged with over the design development and construction of the Project – to enable the community to remain involved in these processes. This in particular should include school and childcare facilities in Ashhurst, Woodville and potentially Ballance;
 - (c) methods of consultation and matters to be discussed, including:

- (i) proposed hours of construction activities, in particular where these are outside of normal working hours or on weekends or public holidays, to acknowledge that such works have the potential to impact on people's way of life;
 - (ii) methods to deal with concerns raised about such hours;
 - (iii) methods to provide early notification to businesses of construction activities, particularly any such activities that will or may impact on Saddle Road (and use of Saddle Road for traffic), acknowledging the existing impacts of reliance on Saddle Road but also the potential for construction traffic to exacerbate these impacts;
 - (iv) methods to communicate on any further disruption or closures (but also the subsequent reinstatement) of the Saddle Road/Pahiatua cycleway route as it is impacted by construction activity and following construction as its reinstatement is enabled, in recognition of this corridor as a Regional cycling route and as a valued 'environmental and tourism' capital for the community. This recommendation acknowledges that the route is currently not recommended for use as a result of the closure of the Manawatū Gorge State highway route; and
 - (v) methods to communicate on any short-term disruption to access to the Manawatū Gorge walkway and or carpark for that walkway over construction. Again, this acknowledges the importance of this recreational facility for the local and wider regional community and the environmental and sense of place value (environmental and tourism capital) of this asset.
- (d) It is recommended that a full suite of communication activities are considered. Appropriate measures should be undertaken to enable the community to be made reasonably aware of the Project, of their opportunity to comment on issues, and the actions and progress that is being made on construction works. The Plan should detail communications activities, for example:
- (i) publication of newsletters, or similar, and proposed delivery areas;
 - (ii) information days, open days or any other mechanisms to facilitate community engagement;

- (iii) newspaper advertising, particularly in respect of any road closures, changes to road access etc. over construction;
- (iv) notification and consultation with business owners and operators and individual property owners and occupiers with premises/dwellings within 100 metres of active construction, and for all businesses in Woodville and Ashhurst, particularly where such works may impact on access or the amenity of these sites; and
- (v) a Project website as a means of providing and maintaining communication with the public.

Community Liaison Group

153. In addition to the above, I recommend that a Community Liaison Group is established to provide ongoing opportunities for representatives of the community to be involved in detailed design and construction planning. The purpose of the Group will be to:

- (a) share information on detailed design, including information on:
 - (i) landscaping;
 - (ii) public access points or viewing points integrated with the Project;
 - (iii) opportunities (if any) to integrate the Project design with public access or walkway opportunities to areas such as the Manawatū Gorge; and
 - (iv) opportunities (if any) for pedestrian access across the new 'Manawatū River Crossing' to provide viewshaft to the Gorge. This opportunity is identified in acknowledgement of the 'sense of identity' impact that some in the community have identified as being experienced from the loss of the Gorge route, albeit that this impact is associated with the closure of the Manawatū Gorge route. It is acknowledged this is less mitigation for the current Project, but rather that it may be an opportunity to address the impacts of the loss of access to the Gorge resulting from the closure of SH3.

154. The Community Liaison Group forum will also provide an opportunity for:

- (a) reporting and responding to concerns and issues raised in relation to construction works, particularly in respect of the existing local roads (Saddle Road, Pahiatua Track and Ballance Valley Road); and

- (b) monitoring the effects on the community arising from construction works in these areas.
155. I recommend that regular meetings of the Community Liaison Group be convened (for example, once every three months) throughout the construction period for interested people from the community areas identified (it is recognised that attendance to such a group will not be mandatory). It is also recommended that the group should continue until six months after completion of construction so that on-going monitoring information can continue to be shared, discussed and responded to.
156. The proposed invitation for the Community Liaison Group could include:
- (a) representatives of the Ashhurst community (at least 3) and Woodville community (at least 3) as well as Ballance (1), Dannevirke (1), and Palmerston North (1) – noting for accessibility it may be appropriate for the groups to meet separately in Woodville and Ashhurst;
 - (b) representatives from the Ashhurst, Woodville and potentially Ballance Schools and other childcare facilities;
 - (c) respective Council representatives;
 - (d) NZ Transport Agency representatives;
 - (e) representatives of the construction organisation appointed to construct the Project; and
 - (f) tangata whenua/iwi representatives (if they wish to participate, noting that these groups are likely to have separate liaison and engagement fora with the NZ Transport Agency and as such they may not see a need to additionally participate in this group).

Recreation and open space

Manawatū Gorge Carpark Reinstatement Plan

157. As part of the Project, the NZ Transport Agency will reinstate the Manawatū Gorge Carpark. Acknowledging the importance of this community facility, both locally and to the wider community, I recommend that a Management and Reinstatement Plan is prepared prior to any works that may affect access to or use of the Manawatū Gorge Carpark and or access to the Manawatū Gorge Walkway during construction and for the reinstatement of the carpark following construction.

158. The Reinstatement Plan should be prepared in consultation with Department of Conservation and Council and community representatives.
159. The purpose of the Plan would be to provide details of how public access will be maintained over construction and for the reinstatement works in this area, where it is directly affected by construction works.
160. The following specific matters should be addressed in any such Plan:
- (a) removal of structures, plant and materials associated with construction (unless otherwise agreed with the landowner);
 - (b) replacement or reinstatement of formal parking areas, boundary fences, landscaping and information/signage;
 - (c) reinstatement of grassed areas to a similar condition as existed prior to construction;
 - (d) replacement of trees and other planting removed for construction works; and
 - (e) details of 'way finding' and interpretation signage within and adjacent to the Manawatū Gorge Carpark (including to the walkway and (if any) potential opportunities identified for pedestrian viewing opportunities on the new bridge).
161. The above recommendations will allow for flexibility to respond to impacts and develop community aspirations during the construction process, helping to further minimise, manage and remedy the potential impacts identified and further develop positive attributes of the operation of the corridor in tandem with the community.

CONCLUSION

162. In summary, at a regional level the social impacts during construction of the Project will relate to the ability to use Saddle Road safely and without additional delays. The level of anticipated construction traffic will not significantly alter the existing environment, however, and will therefore result in only minor additional impacts on the way people live their lives, come together as a community, sustain themselves, and experience the environment (acknowledging the existing conditions for the community as a result of the closure of the Gorge, which is not a specific element of this SIA).
163. The operation of the Project will alleviate current issues with the existing environment and provide a safe, resilient and reliable transport corridor.

The Project will facilitate connections within and beyond the region, positively impacting cohesion and the ability to carry out daily activities and sustain oneself.

164. At a local level, the construction impacts from construction traffic on Saddle Road and through Ashhurst may (at a low level) exacerbate current issues in the existing environment with the way residents can move both within their communities and to other communities and facilities across either side of the Ranges.
165. The operation of the Project will have moderate to high positive impacts from the diversion of traffic away from Ashhurst, more traffic through Woodville and provision of a safer, more reliable and resilient route over the Ranges. This will facilitate improved performance of daily activities. Positive impacts on the ability to sustain oneself will include improved conditions for commuting and operation of businesses. There will also be improved cohesion of and improved connection to other communities. People will experience positive changes to the quality of the Ashhurst environment, helping return it to a quiet, peaceful, village environment.
166. For those residences within or neighbouring the Project extent, management of access and disturbances during construction, and the transition to operation, will need to be managed with landowners to manage potential impacts.
167. Mitigation strategies are recommended to remedy and mitigate the potential effects and respond appropriately as they occur.

Amelia Linzey

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