Petone to Grenada Link Road

Engagement Report August 2014

NZ TRANSPORT AGENCY
WAKA KOTAHI

Safer Journeys

New Zealand Government

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1 Executive Summary

The purpose of this report is to reflect the comments made by the community on the first round of public consultation for the Petone to Grenada Link Road (also known as P2G / the Link Road). The consultation process started at the end of January with individual meetings for directly affected property owners. Information days were then held in Petone and Grenada and the consultation was open to public comments from the 22nd of February until the 17th of April 2014. A total of 1415 written submissions were received, with a number submitted after the closing date. Of these, 60 were signatories to group submissions. All submissions have been accepted and incorporated into this report.

The key outcomes from the consultation with regard to design elements of the road:

- A large proportion of the comments came from the Tawa Community.
- For the Petone to the crest area there is a preference for Option 4.
- Most submitters were supportive of using the excess fill for the Petone to Ngauranga Cycleway.
- There is a concern that the Link Road will increase traffic on Petone Esplanade.
- There is a general requirement that suitable access to the Horokiwi community should be provided. The Horokiwi Community also clearly stated their desire to work closely with the NZ Transport Agency to find the best workable access solution.
- Submitters were concerned about the capacity of the Tawa Interchange once the Link Road is built.
- Submitters were supportive of building the Petone interchange as soon as possible.
- A great number of submitters questioned the need for extra capacity north of Tawa.
- There is a clear indication that network resilience is an important consideration for many of the submitters.
- There is support for the provision of cycling and pedestrian facilities along the route, with a suggestion to provide these facilities off-route at certain areas.
- There is overall support for the provision of a pedestrian/cycle connection between Belmont Regional Park and the Petone Foreshore to be included in the project.
- Submitters would like to see more of an emphasis on public transport on the Link Road and the Link Road should not undermine current use of Public Transport.
- There is a concern that the steep gradient between Petone and the crest (option 4) will discourage heavy vehicles from using it.
- A similar number of people support tolling as oppose it.

Key comments with regard to environmental effects to be considered in the next stage of the project:

- The most dominant environmental concerns related to social, pollution and ecological effects.
- The social effects related to loss of property and emotional connection to the property, distress in the community, uncertainty and anxiety. There were also concerns that the Link Road would impact on social facilities such as sports fields and schools.
- Pollution concerns related to air, water and light pollution.
- Ecological effects were centred predominantly around the areas of Belmont Regional Park, Horokiwi and Takapu Valley. Concerns centred on sedimentation of streams and local habitat of fauna and flora.

Other matters raised during consultation:

- There is significant support for upgrading SH58 rather than developing P2G.
- There is general support that the Cross-Valley Link (in Hutt City) should form part of the P2G Link road.
- There is support for greater investment in public transport in the region.

Overarching Feedback:

There was clear support for the concept of the Petone to Grenada Link Road, but feedback was received requesting additional work to be done on a number of aspects of the proposals.

There is clear support for a new Petone Interchange, and numerous submitters commented that the replacement of the Petone Interchange should be the highest priority part of the project.

Option 4 is clearly supported as the preferred option for the section of the Link Road between Petone and the crest of the Wellington Escarpment. Submitters generally welcomed the development of this option which avoids direct impact on the Belmont Regional Park, although concerns were raised about the potential visual impact of the road on settlements in Petone and Korokoro.

The proposals for alignments from the crest of the Wellington Escarpment west to the SH1 corridor were also generally supported, though a number of submitters raised concerns around the impact on the Hunter's Hill development area.

Feedback on the proposals for additional capacity north of Tawa is mixed. There was support and opposition for both Option C and Option D. On the whole there was strong feedback requesting that the need for additional capacity north of Tawa should be reviewed with a view to:

- Re-evaluate the need for and timing of additional capacity to be provided north of Tawa
- Review potential for public transport upgrades to alleviate the need for additional capacity north of Tawa.
- Review potential for widening of SH1 (Option C) to take place in the road reserve
- Review the potential for an upgraded SH58 to alleviate the need for additional capacity north of Tawa.
- Review the potential for a redesigned Option D to avoid the sports fields at Grenada North.
- Review the proposed design of the Tawa interchange to ensure sufficient capacity will be provided if/when the Petone to Grenada Link Road is constructed.

It can be concluded that there is clear support for Option 4. There is no clear preference for either Option C or D.

2 Consultation Purpose

2.1 Objectives

The objectives of the engagement respond to the NZTA's desire to have a robust investigation and to gather inputs and feedback from key stakeholders and the wider public to inform the development of the Project.

The primary objectives of the public engagement on the Petone to Grenada Link Road are to:

- Provide balanced and objective information on the intent of the project, the decisions that have already been made and the impending Project decisions that key stakeholders and the community can provide input into and influence through the engagement process;
- Gather information within the study area and from community input that will help the project team understand stakeholder aspirations and concerns about connectivity and safety for all road users and pedestrians, and potential concerns about the social and environmental impacts of construction;
- Gather community input to the decisions about alternatives, land purchases and transport linkages that can be influenced by stakeholders;
- Build positive relationships between the NZTA and local stakeholders; and
- Ensure that there is clear communication about how information gathered through the engagement is used.

The purpose of this report is to reflect the views and opinion of the public on the Petone to Grenada Link Road. It should be understood that there has been no attempt to correct factual misunderstandings of the public as it is important to not just know what the public's knowledge is but also what their perceptions are.

2.2 Consultation Activities

This section of the report outlines the activities that have occurred before, during, and after the formal eight week consultation period from 22 February to 17 April 2014.

2.2.1 Consultation with Mana Whenua and Tangata Whenua

The desired outcome of consultation with mana whenua and tangata whenua is to build a positive relationship with each of the identified iwi groups and to engage with iwi in a way that is respectful to the cultural beliefs of those iwi groups involved.

Consultation also allows the NZTA to meet its responsibilities under the Resource Management Act (RMA) and to make sure that a response is obtained that is clear and useful in the RMA and wider context, to assist with the preparation of the Assessment of Environmental Effects (AEE) for the project. The process for consultation with iwi has been documented through the production of the Engagement Plan for the Petone to Grenada Link Road. Ongoing consultation will be guided by Memoranda of Understanding (under development) between the NZTA and iwi as the project moves into the SAR phase.

The NZTA as a Crown Agency has a 'contract' with iwi, through the Treaty of Waitangi, that is recognised in the RMA. In relation to iwi consultation, the NZTA needs to be able to answer:

1. How has the NZTA recognised and provided for the relationship of tangata whenua and the taonga (land, streams, sea) affected by the Petone to Grenada Link Road.
2. What the kaitiakitanga statement/principles is/are of each iwi and how the NZTA will have particular regard to the principles when determining the Petone to Grenada Link Road route.

3. What the tangata whenua Treaty position is and what (if any) Treaty principles need to be taken into account, when determining the Petone to Grenada Link Road route.

These outcomes are being met through engagement (refer Table 1) with Port Nicholson Block, Tenths Trust and Ngati Toa including the development of the Memorandum of Understanding (MoU) between the NZTA and Port Nicholson Block, Tenths Trust and Ngati Toa.

Table 1: Iwi Meetings

Project Team Meetings/Workshops with Iwi			
Briefing	Port Nicholson Block, Tenths Trust, NZTA and Opus	16 July 2014	Initial briefing of project with Port Nicholson Block and Tenths Trust at Hokoikoi Reserve.
Briefing	Port Nicholson Block, Tenths Trust, NZTA and Opus	29 October 2014	Update on project progress and options.
Briefing	Ngati Toa, NZTA and Opus	5 March 2013	Initial briefing of project with Ngati Toa in Porirua. With particular reference to effect on the streams feeding into the Porirua Harbour

2.2.2 Consultation with Directly Affected Landowners

Directly affected landowners were contacted by phone and/or letter from January 2014 informing them that their property may be affected. Most directly affected landowners have now had at least one site visit from the project team. All the land owners visited received a plan indicating the potential impacts on their land. Land owners were also given a copy of the LINZ handbook to inform them of their rights in terms of the Public Works Act.

During the meetings landowners were also invited to the Open Days. They were strongly encouraged to make a submission on the project. A commitment was made to all landowners that the Project Team would provide them with an update by mid-2014.

2.2.3 Consultation with Key Stakeholders

Consultation with key stakeholders such as community groups and environmental groups has occurred on an ongoing basis. For the purposes of this project, a key stakeholder is defined as a person or group that:

- May have some influence over the project or represents a public view.
- Has interests that may be affected by the performance or completion of the project.

While Greater Wellington Regional Council, Wellington City Council, Hutt City, Porirua City Council and Upper Hutt City Council are key stakeholders, their roles are slightly different from other key stakeholders due to their specific responsibilities in managing territorial areas. These stakeholders have been/are involved in workshopping issues and opportunities, and the assessment of options to identify suitable solutions for consultation.

All key stakeholders (Table 2) received a phone call during the Consultation period informing them of the project and asking them if they wanted a meeting or were satisfied with a copy of the project newsletter. Liaising with stakeholders is an ongoing process which will continue throughout the project.

Table 2: Key Stakeholders

Group	Stakeholder
Territorial Authorities/Organisations	Greater Wellington Regional Council
	Wellington City Council
	Hutt City Council
	Upper Hutt City Council
	Tawa Community Board
	Petone Community Board
	Porirua City Council
	KiwiRail
	Transpower
Statutory Agencies	Department of Conservation
	NZ Historic Places Trust
Industry groups	Automobile Association
	Centre Port
	Hutt Chamber of Commerce
	NZ Road Transport Association
	Wellington Regional Chamber of Commerce
Other	Horokiwi Quarry
	Lincolnshire Farm Limited
	Capacity
	Cycle Aware
	Living Streets Aotearoa
Community	Affected/potentially affected property owners
	Horokiwi Residents Association
	Korokoro Environmental Group
	Friends of the Belmont Regional Park
	Glenside progressive Association
	Grenada Village Community Association
Maori	Port Nicholson Settlement Block
	Tenths Trust
	Ngati Toa

2.2.4 Communication with Regulatory Authorities/Central Government

Several meetings and workshops were held during the scoping phase of the project (initial project design and information gathering phase) with the regulatory authorities and other central government agencies. These meetings were to ensure that:

- The project team captured the key project issues and constraints;
- Stakeholders were involved in the option identification and development process.

Table 3: Meetings/Workshops with Regulatory Authorities/Central Government

Project Team Meetings/Workshops with Regulatory Authorities/Central Government			
Meeting Name	**Attendees**	**Date**	**Purpose**
Design Surgery Workshop Workshop No. 1	GWRC, HCC, WCC, NZTA, Opus	17 Aug 2010	To engage and involve key stakeholders at the early option development stage. To explore the issues, challenge early assumptions and identify opportunities to ensure the best overall outcomes for the project.
Design Surgery Workshop Workshop No. 2	WCC, HCC, GWRC, NZTA, Opus	14 Aug 2014	To present specialists' assessments of options and discuss and challenge specialists' assessments with the wider team.
Project Steering Group Meetings	WCC, HCC, GWRC, NZTA, Opus, PCC	16 July 2013, 18 Oct 2013, 19 May 2014	To provide regular updates to key stakeholders and engage with them on key project decisions.
P2G CEs Meetings	WCC, HCC, UHCC, PCC, GWRC	Regular basis from June 2014 onwards	To engage on key project decisions.
Consultation Liaison Meeting – WCC	WCC, NZTA, Opus	6 Dec 2013	Provide update on project. Discuss engagement process and what support will be provided by WCC.
Consultation Liaison Meeting – HCC	WCC, NZTA, Opus	16 Dec 2013	Provide update on project. Discuss engagement process.
Consultation Liaison Meeting – Porirua CC	PCC, NZTA, Opus	16 Dec 2013	Provide update on project. Discuss engagement process.
Meeting with HCC-Council Briefing	HCC, NZTA, Opus	23 January 2014	Provide update on project. Discuss engagement process.
Meeting with WCC-Council Briefing	WCC, NZTA, Opus	4 February 2014	Provide update on project. Discuss engagement process.
Meeting and presentation with Tawa Community Board	Com Board, Public, NZTA, Opus	13 February 2014	To provide an update on project and engagement process.

2.2.5 Engagement with the Community

The wider community was consulted by posting the brochure to the immediately affected area, which included Horokiwi, Petone, Tawa and Grenada.

Four open days were held during the six-week period. These were advertised during the week commencing 17 February through six local papers, one being the Dominion Post, the others being community papers across the greater Wellington area. A week's worth of radio advertising was also run across both networks (The Radio Network and MediaWorks). At all engagement opportunities people were encouraged to provide their feedback on the project. This also included extra briefings with specific groups and stakeholders who requested a meeting.

3 Consultation Process

Several methods were used to consult with different groups, individuals and affected parties.

3.1 One-on-One Discussions and Meetings

One-on-one meetings were held with key stakeholders and directly affected landowners. Other one-on-one meetings took place where they were specifically requested and in relation to consultation with the following people and organisations:

- Meetings with directly affected people – those whose land may be purchased or otherwise encumbered.
- Government agencies and other organisations.
- Meetings with Council Officers to discuss technical issues, through design surgery workshops.

3.2 Open Days

Two open days were held during the consultation phase:

- Saturday 22 February 2014, Opus Research and Training Facility, 33 The Esplanade, Petone (10am – 3pm)
- Wednesday 26th February, Linden Social Centre, 10 Linden Avenue, Linden (3pm-8pm)

The open day format had 10 display boards featuring information on the design process, the options for the interchanges and the process moving forward. Strip maps showing the entire alignment of each Option and an indicative route corridor were also provided for easy reference and discussion with the project team.

Each of the Open Days had meeting rooms available where private meetings could occur with directly affected landowners if required. The Open Day material can be found in Appendix E.

The open day material was supported by project team specialists and the NZTA. Each open day had a breakout room where meetings with directly affected landowners could occur in private.

A total of 632 people attended the open days, with 293 at the Petone Open Day and 339 at the Tawa/Linden Open Day.

Figure 1: Petone Open Day


Figure 2: Tawa/ Linden Open Day

3.3 Further Community Workshops/Mini Open Days

Of note were two additional community workshops/mini open days at Horokiwi and Korokoro.

- The Horokiwi workshop was held on the Tuesday 25th of February.
- The Korokoro mini open day was held on the Sunday 16th March 2014.

3.4 Website, Free-phone Number and Email

A dedicated Petone to Grenada Link Road email address (petone2grenada@nzta.govt.nz) and free-phone number, 0800 P2G INFO (0800 724 4636) have been available during working hours over the consultation period and will continue to operate for the future. All email queries and phone calls are recorded in Darzin and answered as soon as possible. This will continue to take place as the project progresses through the current phase.

There is also a dedicated project website (http://www.nzta.govt.nz/projects/petone-grenada-link-road/index.html).

Summary and detailed information about the history of the project is on the NZTA website including the material on display at the public open days, other publications including reports, meeting minutes, and frequently asked questions.

3.5 Brochure

An 8 page brochure (refer Appendix B) was prepared for the consultation phase. This brochure contained information to support the objectives of the consultation period and included information on the design process, the options for the interchanges, and the process moving forward.

The brochure was distributed from early February to addresses across the project area (see Figure 3). Following customer feedback the distribution area was extended to include Tawa as a whole. The brochure was also available from the libraries in Petone, Lower Hutt, Johnsonville, Tawa and Porirua.

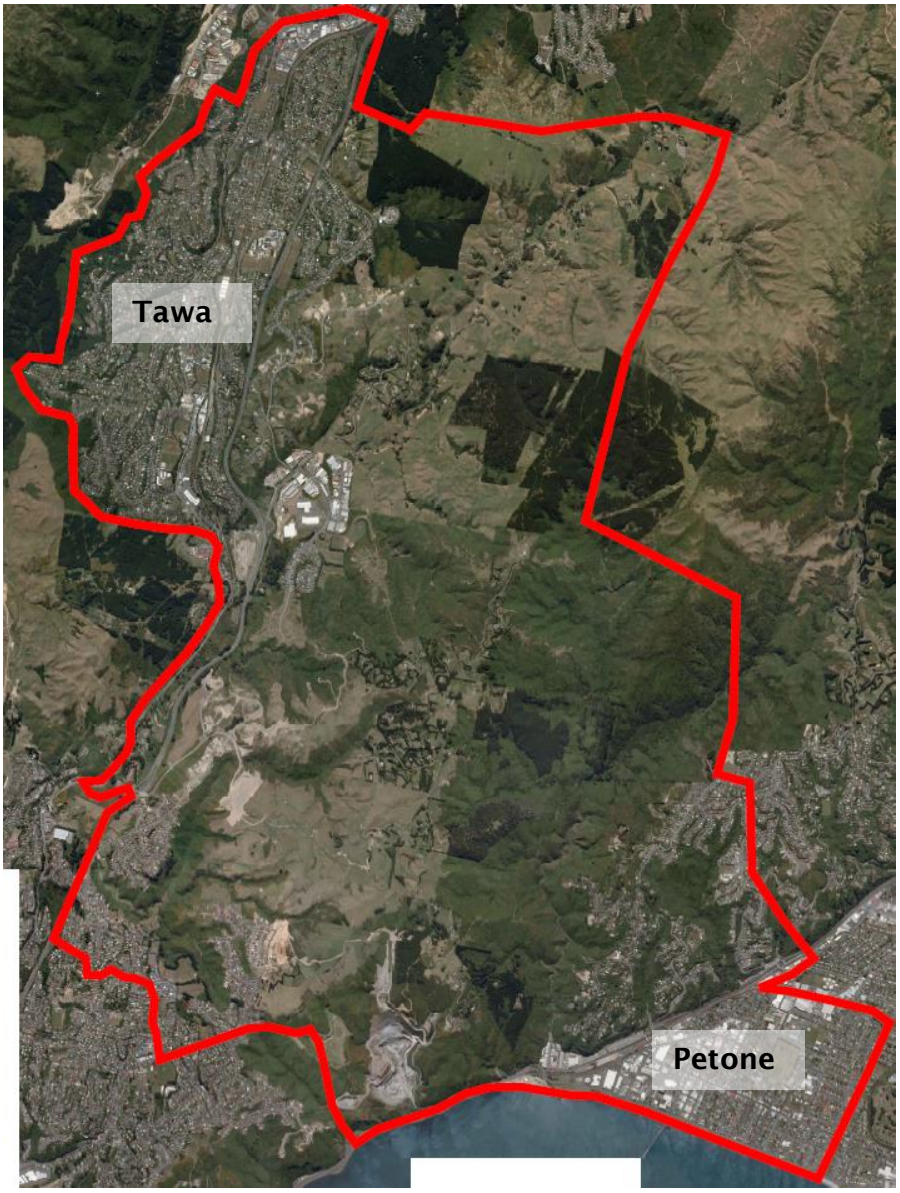

Figure 3: Diagram of brochure distribution area.

3.6 Feedback Form

Feedback forms were available on the project website, for download, or completion through the online system. The online system automatically sent the completed feedback form through to the project team via the project email address.

Information sought on the feedback form included contact details, location of respondent and comments on what the different aspects of the proposals meant to the submitter, plus any general comments and feedback. A copy of the feedback form is attached as Appendix C.

Feedback forms were able to be lodged online, posted, or handed over personally at the open days. Some submitters chose to send their comments in letters/emails and not use the feedback forms; these were accepted and recorded accordingly.

3.7 Media Statements

Media statements were released to announce the consultation timeline, publicise the start of consultation, and remind people of the closing date, and to inform them of the extension of the

submission period once that decision had been made. Copies of these media statements were posted on the project website and are attached as Appendix D.

3.8 Project Consultation Database

The project is using a data analysis tool called Darzin to manage the submissions and feedback received during the consultation period and through the current phase of the project. Darzin allows the project team to record and summarise high volumes of public feedback, before feeding that knowledge back into the project. It is also used to record any meeting/contact that takes place across the project as a whole.

All submissions are sorted by submitter preferences and the issues that are the focus of the submissions.

Darzin uses a 'classification tree' to summarise all submissions. The classifications used reflect the project's specific needs and consultation objectives, and contain a number of headings and subheadings. For example the heading 'environmental effects' then has subheadings such as noise, ecology, air quality effects. This allows the project team to classify the large amount of information received, into similar groups so that trends and themes can be identified and fed back into the design process.

Information concerning each submitter was entered into Darzin, including addresses and contact details if supplied. This enables any future correspondence with the submitter to be included under the same submitter and for the information contained in a specific submission to be easily extracted into the future.

It is important to note that with Darzin each submission can have multiple classifications depending on its content. If a submission only made reference to a preference for the proposal for Option C, then there would be one classification. However, if the submission also commented about such things as noise, landscape, and cycling then there would be a classification for each of these issues as well. This reflects the different issues that a submitter may bring up and ensures that these are appropriately addressed.

The use of Darzin enables specific reports to be generated. For instance, resilience issues over the whole project. This could be broken down even further through for instance combining those comments that focussed on resilience associated with Option D.

The Darzin system lets the project team take a completed submission form and quickly and accurately break down the issues that the submitter has brought up in their submission. Darzin also provides a one-stop located for finding an electronic copy of a submission in the future.

Darzin allows the project team to identity issues/concerns/opportunities/trends from the submission made and report these to the NZTA and wider project team.

3.9 Submission Methodology and Analysis

As detailed above, feedback forms were received online, by hand at the open days, via email and by post. In addition, a number of verbal submissions were made either on the telephone or at Open Days or in private meetings. Every submission received has been recorded in the project consultation database (Darzin).

The closing date for lodging submissions was originally the 31 March; however the decision was made on 21 March to extend this period to the 17 April (before Easter) in order to ensure all submitters had sufficient time to comment.

From the data collected, issues, concerns, opportunities and preferences have been identified. An analysis of the summary of comments has been undertaken with a set of common submission themes being produced as a result (discussed under summary of submissions below).

3.9.1 Form of Submissions

Submissions were received in the form of the feedback form, letters, emails and verbal submissions received during Open Days and meetings. All of these different forms of feedback have been included in the submission analysis and summary contained in this report.

3.9.2 Anonymous Submissions

Fifteen anonymous submissions were received (names and/or addresses were not stated). These submissions have been recorded in the consultation database and are included in this report's submission analysis and summary.

3.9.3 Pro-forma Submissions

Four types of pro-forma submissions were received i.e. template submissions which contained exactly the same or similar content but which were lodged or signed by individual submitters. All of these had parts of the forms as 'tick-boxes', and as such varied from form to form.

To enable efficient processing and extraction of information from these submissions a form was developed in Darzin that reflected each of these pro-forma submissions. This enabled effective and accurate processing and comparison of the 'tick-box' feedback, but also allowed any text appended to the form to be addressed through the classification and summary process.

These submissions were treated and summarised as individual submissions, recorded under the name of the individual submitter.

Specific summaries of these pro-forma submissions can be found at the end of the summary of submissions chapter of this report.

3.9.4 Multiple Submissions

In some cases multiple submissions have been received from one individual submitter i.e. different submissions lodged on different dates, but from the same submitter with the same contact details. These submissions were treated and summarised as one submission entry, with each multiple submission detail being added into the initial submission summary entry.

3.9.5 Late Submissions

118 submissions were received after the consultation period closed on 17th April 2014. These were received via hard copy posted into the freepost project NZTA postal address (93) and via the project email address (25). These submissions were put into the submission database an included in the findings of this report.

4 Summary of Submissions

This section provides a summary of the submissions received during the consultation period from 22 February to 14 April 2014 (including all late submissions). An analysis of the submission comments identified a number of themes which are reported in the following pages. These identified themes fed into the development of the classification tree and now form the basis of this section of the engagement report. A total of 1415 submissions were received and Figure 4 below shows an overview of where the people and organisations who submitted were located.

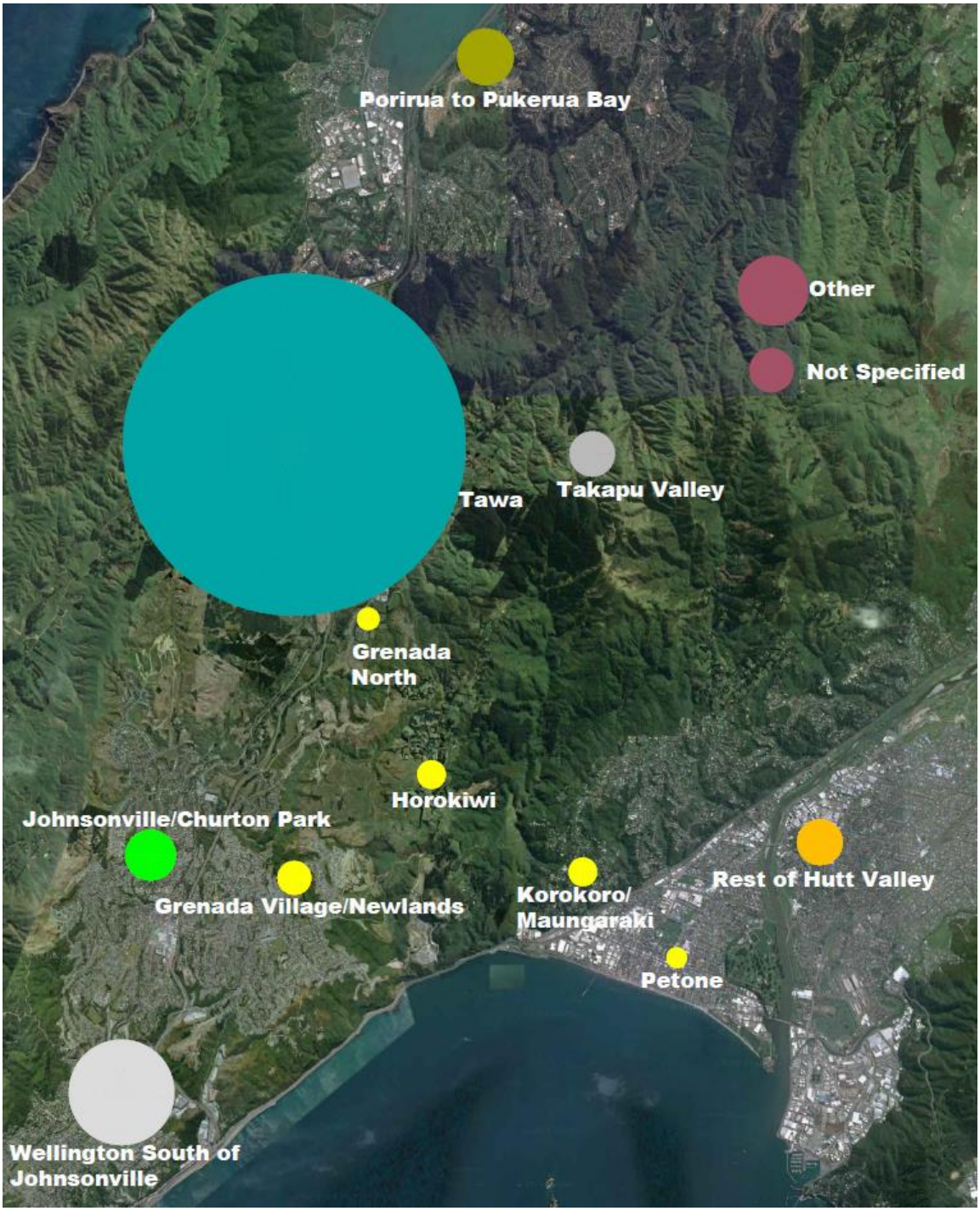

Figure 4: Indicative locations of submitters

It can be seen that a substantial portion of submitters were from Tawa, with members from the surrounding areas also being represented. It should be noted that Takapu Valley actually falls

within Tawa for community representation purposes, but as option D runs through this area and resulted in distinct feedback from the Tawa community it has been shown separately from the rest of the Tawa community.

4.1 Structure of this Section of the Report

This section of the report breaks down the topics covered in these submissions. As outlined through the processing of submissions a classification tree was developed. This enabled similar comments to be grouped together and allow trends and common themes in the submissions to be identified. This included general comments relating to the project as a whole, or specific aspects of the project. Broadly, many of the topics could be broken down into those relating to design elements and environmental effects. Visual representations of the comments received relating to both of these categories can be found in the below figures.

Many of the comments received focussed on topics on which specific feedback was sought by the project team. Some other topics covered by submissions were not specifically sought at this stage, but they will be useful for future reference as the project progresses. Finally, other feedback was also received that did not specifically relate to the P2G project. To reflect these three broad groups of topics the feedback has been grouped and analysed into the following three categories:

- Feedback – Section 5.
- Useful information for the next stage of the project – Section 6.
- Other feedback - Section 7.

Under each of these headings summaries of the relevant responses is supplied. Examples of representative quotes can be found in Appendix A Representative quotes from submissions.

5 Feedback

This section outlines feedback received that relates to the information sought by the project team.

5.1 General comments on submissions

Many general comments surrounding the project were received. These ranged from full support of implementing both Options C and D, to support for implementing the project only as far as Grenada (i.e. opposing the widening of SH1 and/or the Takapu Link to Transmission Gully (TG)). Here is a broad overview of the general comments before the remainder of this section goes into further depth for each of the classifications.

The main points are summarised below and representative quotes can be found in Appendix A, section 13.1.

5.1.1 Support

General comments in support of the P2G Link Road related to:

- Making journeys between the Hutt Valley and Porirua faster and shorter.
- Provision of an alternative route between the two areas.
- Traffic flow and reliability improvements.
- Opening up future residential or business growth opportunities through improved connections.
- P2G being essential addition to the region's roading network.
- The priority for completion needs to be changed to urgent.

5.1.2 Opposition

General comments in opposition to the P2G Link Road related to:

- Impact of the Link Road on The Esplanade through increased traffic.
- High cost to fix a congestion problem that only exists during a short peak hour period.
- Just changing the location of congestion points.
- Effectively splitting Horokiwi community in two.
- Alternative options being better suited to address problems.

5.1.3 Issues about Process

Many submitters put forward issues that they had with the project such as:

- The problem the Link Road will address needs to be more clearly defined and alternative strategies more clearly considered.
- Issues with the assessments and option evaluations that had been undertaken.
- The process of consultation was criticised.
- The speed of the decision making was questioned.

5.2 Petone to the Crest of the Wellington escarpment

The project team had a preference for Option 4 in this section of the alignment. This section outlines the general range of comments that was received concerning Option 4. The main points are summarised below and representative quotes can be found in Appendix A, section 13.2.

In general, those submitters who commented on this aspect of the proposal were very supportive of this decision with common responses such as:

- The route passes through mostly farmland so does not affect many houses.
- Option 2 and 3 impacting on waterways.
- Option 4 being the least damaging.
- Support Option 4 provided there is adequate provision for freight vehicles.
- Avoids traversing the quarry, contaminated sites and Belmont Regional Park (BRP)
- Less likely to be impacted on by earthquakes when compared with Option 1.

The avoidance of the Belmont Regional Park (BRP) was identified by many as a positive, with comments such as:

- Option 2 and 3 should never have been considered.
- Minimising the visual impact from Petone.
- The BRP being an important recreational area.

Option 4, being further away from residential areas of Korokoro in comparison to some of the other options was also considered a positive.

There were several submitters who signalled opposition to Option 4 with common comments including:

- No benefits of the project and in particular a 6 lane highway going up the escarpment.
- It is still considered to be close enough that Option 4 will have an impact on BRP.
- All options will scar the landscape, with none of the options being satisfactory, esp. with deep cuts.
- Alternative options having more merit.

Common general comments/suggestions relating to all options included:

- Whichever option minimises traffic disruption during construction would be best.
- Options for including cycling/walking along the route should be investigated and included since the gradient does not deter cyclists.
- Any lighting should be downturned so as to not impact on the night sky.
- Concerned about noise impacts on Korokoro and Petone.
- It is desirable that excessively steep gradients in roads are avoided where possible.
- Would like to see the fill used to widen SH2 between Petone and Ngauranga.
- Reinstatement of the bush around the road will be fundamental.
- Benefits of opening up more land for development.
- Banning heavy vehicles from the route could mean savings through it not having to be 6 lanes.

There were some general concerns relating to the preferred route and those that were investigated as part of the project thus far. These included:

- Concern over Option 4 being developed very late in the process and that it's a feasible option.

Some submitters also raised that they thought that the route that went through the quarry (PFR alignment) should be revisited and that there should also be more work into determining the feasibility of tunnelling through Horokiwi hill.

5.3 Need for Option C and Option D

The main points are summarised below and representative quotes can be found in Appendix A, section 13.3.

A substantial portion of the comments received correlated to the need for Option C and/or D (relating to the widening of SH1 and the link up Takapu Valley to Transmission Gully). Many of

these focussed on topics such as traffic modelling, social effects or the use of alternative routes and as such these topics are covered in the appropriate sections. This section is intended to give a broad overview of the issues raised specifically relating to the need for either Option C or Option D.

General comments relating to the need for Option C and Option D related to:

- Availability of better options and the lack of evidence of need for either option.
- Not sufficient demand to warrant the widening of SH1 (and therefore no need for Option D either).
- Impact of TG increasing traffic levels on SH58.
- The need for widening SH1 or the Takapu Valley options should be assessed once the P2G Link Road has been operating.
- Questioning of the traffic modelling used.
- The effects of either Option on the communities being too great.
- The process of Option evaluation used being flawed.

Those comments relating to Option C and D in conjunction with the whole alignment are covered in more depth in the following sections as they formed the focus for many submitters.

5.4 Design elements

A range of comments were received around design elements of the project. This concerned specific areas of the project such as interchanges, connection points and network resilience.

Figure 5 illustrates the spread of comments on each topic. The relative size of the circles (diameter) indicates the proportion of comments associated with each topic.

The feedback form (Appendix B) asked specific questions concerning design elements of the project. These questions included:

- What do you think about our Petone Interchange Options?
- What do you think the benefits are of providing a pedestrian and cycle link between the Belmont Regional Park and Petone Foreshore?
- Should Horokiwi be connected to the highway network by the current SH2 connection or a new connection with the Link Road?
- Would you support a toll on the Link Road if it meant building it sooner?

Although as shown in Figure 5 many of these topics were well represented in the comments received it was important that additional elements were reflected and the classification tree was amended where applicable to fit this need.

This section of the report outlines the common themes/trends relating to each of these elements. Many of these topics relate fit within the three categories mentioned above, and going forward are addressed under each applicable category.

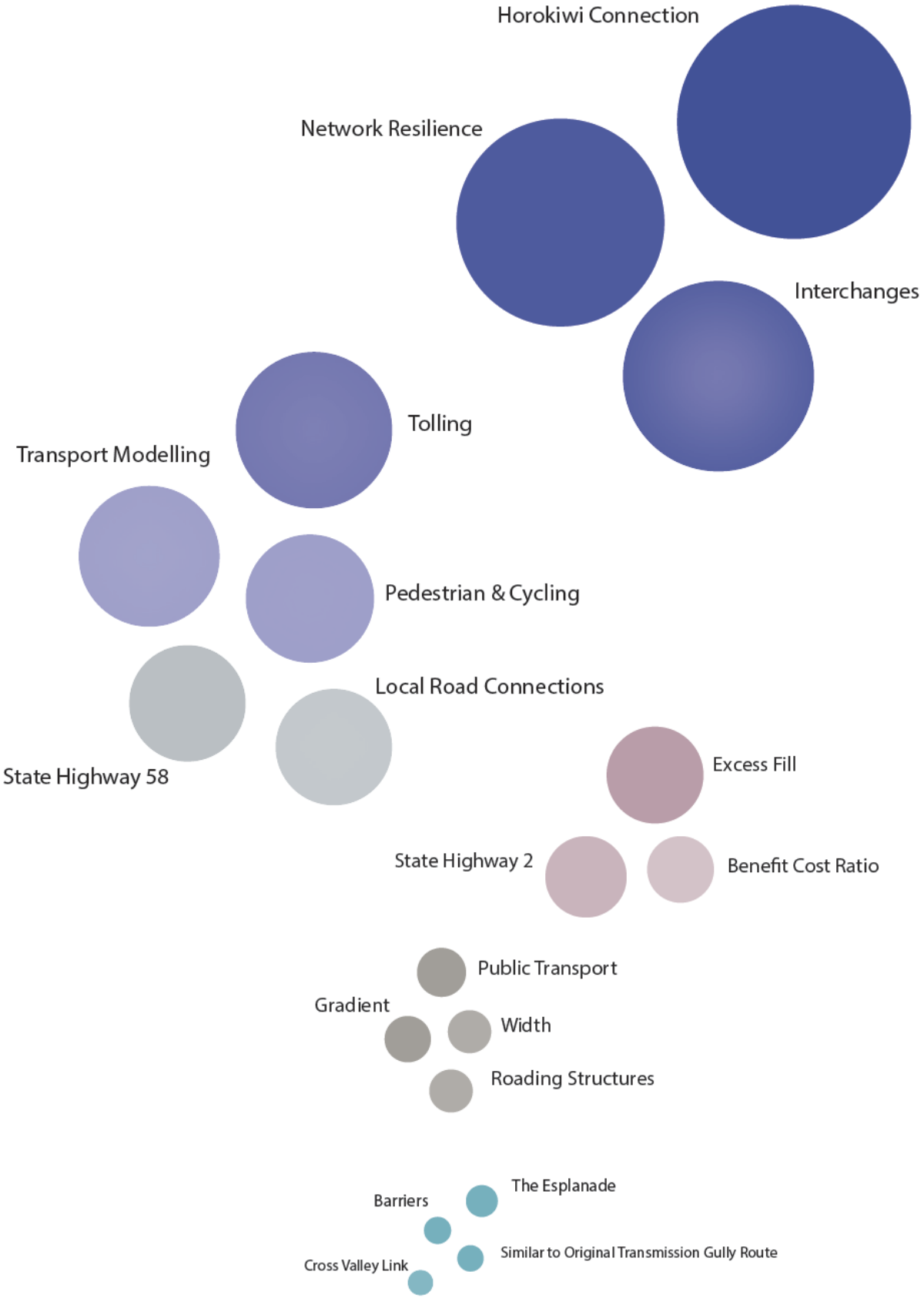

Figure 5: Representation of frequently occurring topics concerning design elements of the Project

5.5 Excess Fill

There were a range of comments received concerning the excess fill that the project will generate. The main points are summarised below and representative quotes can be found in Appendix A, section 13.4.

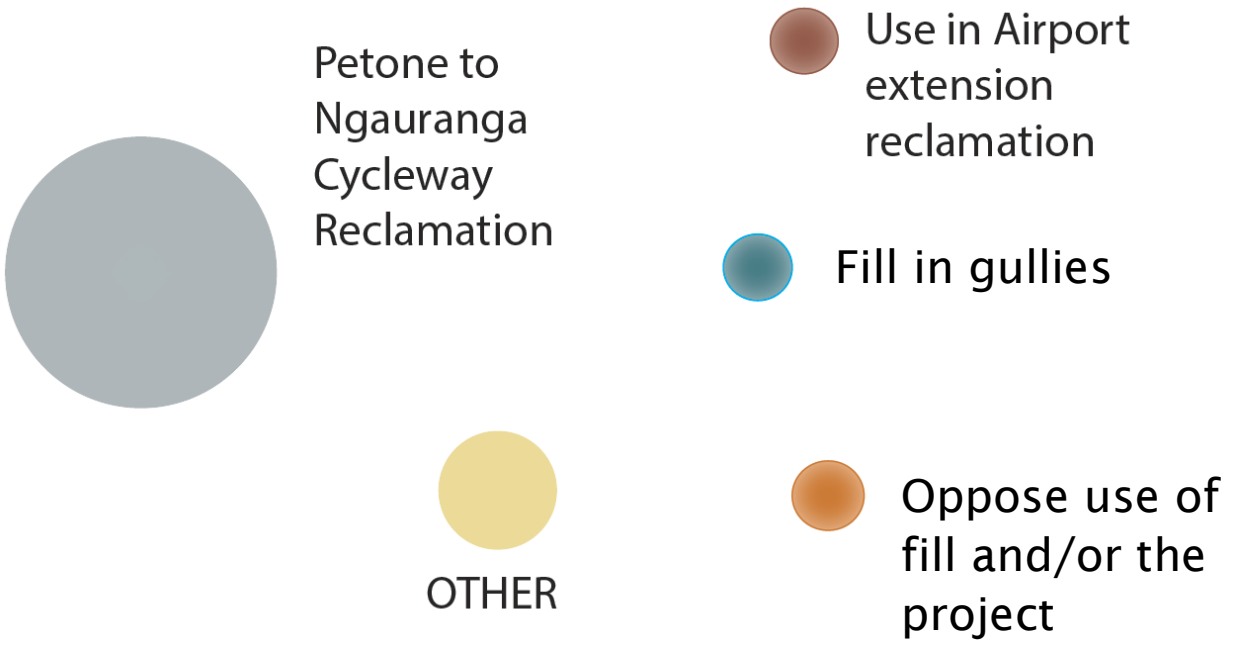

Figure 6: Use of Fill

Common general comments concerning the use of fill related to:

- Support - with no reference to a specific use for fill.
- That P2G should not be progressed – leaving the fill where it is.
- Creation of so much fill is potentially a reason for not proceeding.
- Impact on waterways.
- Horokiwi Road must not be used for transporting the excess fill away.

Many comments focussed on a particular use of fill and /or any concerns associated with that use. Each of the uses outlined in submissions are now briefly summarised.

The majority of submitters who commented on this aspect of the proposal were supportive of using excess spoil for a cycleway and included responses relating to:

- Cost savings associated with using fill at a nearby location.
- Positives for both projects.

General concerns about the use of fill for the Petone to Ngauranga (P2N) Cycleway related to:

- Timing – many outlining that the cycleway is needed sooner rather than later.
- Potential consenting issues for a reclamation.
- There would a significant disruption to SH2 traffic and the railway.
- The Harbour being deep in the area.
- The environmental impact of a reclamation.

Several submitters advocating for a cycle lane on the Link Road but wishing to limit the amount of fill suggested that this could be provided on a separate route.

Several submitters outlined a clear opposition to the use of excess spoil for any reclamation. These related to:

- The less reclamation the better.
- Cynical about the use of excess fill on the cycleway to justify the P2G Link Road.
- Impact on the environment.

The use of excess material for a potential Wellington Airport extension was also mentioned by several submitters, with common responses including:

- General support.
- Timing for use in the Airport extension could be perfect.
- Potentially an afterthought by the project team to fend off criticism about the excessive excavation required.

Common responses in relation to the use of excess spoil in gullies related to:

- Use in gullies on the way to Tawa and Lincolnshire Farms development.
- Loss of shelter for stock and people in a windy environment.
- Effect on waterways and regenerating bush.

Common responses relating to use of fill along SH2 / railway included:

- Widening and straightening of SH2 and railway being favourable.
- Provision of an opportunity for creating enhanced seaward protection for protecting the railway and SH2.

Other responses for additional use of excess spoil included:

- The fill could be used to create a flyover from SH2 to Horokiwi (improved access).
- Rimutaka Hill Road (further straightening).
- Mitigation of any noise effects of the road through providing noise bunds.

Also of note was concern over this aspect of the project not being already determined as moving approx. 8 million cubic metres of fill could have a substantial impact on the cost of the project.

5.6 Horokiwi Connection

The main points are summarised below and representative quotes can be found in Appendix A, section 13.5.

5.6.1 General comments surrounding Horokiwi access

Common general responses in relation to Horokiwi access related to:

- Access to the P2G Link Road being as close as possible to where Horokiwi Road will be intersected.
- Connection at Mark Avenue being unacceptable.
- SH2 access should be open for quarry access.
- Improved access is a way in which the impact of the Link Road on the Horokiwi community can be lessened.
- Petone is the main centre Horokiwi residents so access to and from is important.
- Whatever option is chosen the need for travelling to Ngauranga needs to be eliminated.
- There needs to be a bridge to link north and south Horokiwi.
- The bridge needs to accommodate two lanes of traffic (one in each direction) and a separate (separated) lane for pedestrians, cyclists, stock and children on horses.

Also of note is that many people who do not live in Horokiwi stated that this decision should be determined by the residents that live there.

The Horokiwi Community Association submission has been summarised in section 11 of this engagement report.

The connection that Horokiwi will have to the Link Road is of particular interest to the Project Team and several options were discussed in submissions. These focussed on:

- existing connection to SH2
- a connection to the new P2G Link Road
- maintaining both of the above connections
- alternative connections

5.6.2 Existing SH2 connection

Many people commented on the existing connection that Horokiwi currently has with SH2. Common comments in support of maintaining this connection included:

- SH2 connection must remain for Quarry access.
- Provision of some sort of connection from Horokiwi Road to SH2 is considered essential.
- Current SH2 being adequate.

Many submitters (a substantial portion of Horokiwi residents) highlighted the opportunity for an interchange to be constructed at the base of Horokiwi Road on SH2 – with this being an optimum time with the P2N cycleway proposed also. Comments related to:

- SH2 connection remaining the only access point so as to protect the rural character of Horokiwi and to lessen development.
- Having a SH2 route as a non-tolled access option for residents, family, visitors, customers, tradesmen etc. coming to Horokiwi (if tolling on the P2G Link was implemented).
- With the construction of P2G and the re-alignment of State Highway 2 and the railway at Petone, there is a very viable opportunity to provide Horokiwi residents and Horokiwi Quarries Ltd with a safe exclusive access to their suburb.

Common responses that opposed the retention of this access related to:

- Unsafe condition of current connection.
- No need to retain SH2 connection if a connection to P2G is made.
- Induces traffic problems on SH2.

Further concerns relating to this access onto / from SH2 related to:

- Emergency services access – would be an issue if SH2 access is closed (already considered an issue with the closing of the median barrier).
- Moving of SH2 access further south for safety reasons.
- The elimination of the detour to Ngauranga being viewed as important.

5.6.3 P2G connection

Many comments were received about a connection to the P2G Link Road from Horokiwi.

Common responses in support included:

- Avoiding SH2 is desirable as this is frequently blocked.
- A connection to the Link Road will be safe, so no need to retain the SH2 access.
- Full interchange at Horokiwi is required or at the very least access to Petone.
- A full interchange with the Link Road is required otherwise Horokiwi will get all the disadvantages and none of the benefits.
- Reducing connections to SH2 is favourable.

Common responses in opposition to connection of Horokiwi to the Link Road included:

- If the only Horokiwi access was via the Link road then those that live at the bottom of Horokiwi Road would be severely disadvantaged if they had to travel to Mark Avenue to get onto it.
- Connection at Mark Avenue would be unacceptable.
- If access to Horokiwi is only via a P2G Link Road connection then any tolls on the road would be very problematic for residents.

It was reiterated by many that there needs to be a bridge otherwise the Horokiwi community would be cut in two.

5.6.4 Both SH2 and P2G connection

Many submitters made comments relating to having both a connection to the P2G Link Road and maintaining the existing SH2 connection. Common comments in support of having both connections included:

- Additional link to the Link Road would give Horokiwi residents an alternative route into and out of their suburb. Desirable due to how often SH2 is blocked.
- Access to Horokiwi is not very good, so as many access ways as possible is a positive.
- Having access at both ends of Horokiwi (i.e. both SH2 and P2G) would go some ways towards compensating for the devaluation of property with the Link Road bisecting it.
- Resilience improvements.

Common comments in opposition to having both connections included that:

- For security reasons there should be only one access point into Horokiwi.
- Horokiwi should only have one access point in and out, so as to minimise any thefts and/or vandalism (which could be the case if it became a 'through road').

5.6.5 Alternative Connection to Horokiwi

Many submitters, particularly from Horokiwi highlighted the opportunity for a 'slip road' going from Horokiwi road to the proposed Petone Interchange between SH2 and the embankment (requiring SH2 to be removed).

As outlined briefly above, many submitters commented on the possibility of providing for a full interchange at the bottom of Horokiwi Road with common responses relating to:

- Provision of a full interchange at the bottom of Horokiwi Road is long overdue.
- Would like to see the loop to Ngauranga eliminated, and options put forward by the Horokiwi Community and in particular the Quarry (who have offered to contribute to the cost).

Several people put forward that in the area bisecting Horokiwi Road there should be a cut and cover tunnel so as to lessen the impact on Horokiwi Road. It was also identified that this is a location where some of the excess fill could be located.

5.6.6 Tunnel option under Horokiwi

Several submitters made comments relating to tunnels with several submitters outlining that they do not consider that they have seen any real work on a tunnel option by NZTA. Common responses/suggestions included:

- No mention of tunnels under the hills, rather than steep roads over them.
- Tunnelling or cut-and-cover of P2G where it passes under Horokiwi Road.
- Installation of a tunnel to mitigate adverse impacts on the Horokiwi community.

5.7 Interchanges

This section discusses the comments that were received in relation to the Tawa and Petone Interchanges as proposed. The main points are summarised below and representative quotes can be found in Appendix A, section 13.6.

5.7.1 Petone Interchange

There was general support for the Petone interchange with common responses relating to:

- Petone Interchange being currently dangerous.
- No traffic lights.
- Improving traffic flow and reducing congestion.
- Current configuration being confusing with no north east facing ramps.
- Straightening of SH2 here would be a positive.
- Upgrade of interchange needing to occur regardless.
- Encouraging commercial development in the Seaview/Gracefield area.

Concerns and suggestions about the interchange were varied, with common responses including:

- Access impact for Korokoro residents – access from SH2 lost through access to Priests Avenue being removed
    - Means that the hill side traffic would also have to get off at Petone adding future vehicles to the intersection.
- Detrimental to the local industrial area, through loss of area and access.
- Access and parking at BRP needing to be included in interchange design.
- Impact on the parking for the train station.
- The impact on local traffic congestion, particularly along Hutt Road and The Esplanade needs to be further investigated – particularly with the roundabout as Interchange traffic would have priority over local traffic coming down Hutt Road.
- The environmental impacts on the BRP.
- Safety for pedestrians and cyclists (with it being a raised roundabout) - viewed as not being friendly to cyclists or pedestrians.
- Would encourage more trucks and vehicles onto The Esplanade.
- Delays during construction.
- Impacts on heritage in the area – Woollen Mill and a section of historic marble wall on the corner of Western Hutt Road and Cornish Street.

Further suggestions that the Project Team should consider in relation to the Petone Interchange related to:

- Thought should be given to extending the dedicated bus lanes on The Esplanade to the interchange – maximising bus priority.
- The CVL needs to happen to get the best outcomes / benefits.
- Provision for a pull off area coming down the hill (i.e. a failsafe area trucks can pull into at the bottom of the hill before reaching the interchange).

5.7.2 Tawa Interchange

There was overwhelming concerns and opposition to the proposed interchange at Tawa. Most were not connected to specifically Option C or Option D; however common responses generally relating to either exiting Tawa or Takapu Road;

Common responses in relation to the access to Tawa included:

- Tawa residents would encounter huge delays trying to enter the system as proposed.

- Congestion will occur with vehicles not being able leave Tawa due to traffic coming off the P2G Link Road and going through the roundabouts to go north on SH1 – these will have priority over local traffic coming from Tawa.

Common responses in relation to the access to Takapu Road included:

- Putting unnecessary stress on the existing Tawa Interchange.
- Making exiting from Takapu Road impossible during the morning peak period.
- Concern that both Options C and D will block all exits from the valley in the morning peak period for both Valley residents, and all truck traffic from Grenada North.

Common general comments in relation to the Tawa interchange related to:

- Option C would send significant traffic through the existing roundabouts.
- Concern about the at-grade roundabout system proposed to handle large traffic volume.
- Numerous proposed roundabouts will at best impede the exit from Tawa, both western and eastern sides, onto SH1.
- Very complex new interchange at Tawa
- Slower-moving local traffic is expected to cross and merge at a junction where two high-speed motorways intersect.

The comparative impact of either Option C or Option D was commented on by submitters with common reposes relating to:

- Option D channelling some of the traffic flow from P2G away from the Tawa Interchange lessening congestion issues here.
- Option C causing more congestion at the modified interchange than Option D.

Many submitters also highlighted concerns about the existing Tawa Interchange with common responses including:

- The present roundabouts and access from Takapu is difficult, dangerous and confusing at times.
- There is pressure from the existing and developing big-box retailing around the Tawa Countdown.
- At peak times there are now delays at the Tawa SH1 exit because of the creation of the recently installed roundabout/s.
- The present Takapu Road SH1 interchange intersection on the eastern side where Takapu Road joins the loop is dangerous and accident prone.

Suggestions concerning the Tawa Interchange were made by many submitters with common responses including:

- That the Tawa Interchange is significant enough that it could be addressed as a separate project.
- A flyover (full motorway interchange) being the only answer.
- That if there is no direct connection between P2G and SH1 then NZTA lose the benefits of Link Road due to the congestion generated.
- That more work needs to be undertaken.

5.8 Local Road Connections

Several local road connections were commented on by submitters. Those most prominent included:

- Korokoro access;
- Woodridge connection;
- Linking Mark Avenue to Jamaica Drive;
- Impact on SH2;

- Connection to Seaview and Gracefield; and
- Cecil Road access.

The main points are summarised below and representative quotes can be found in Appendix A, section 13.7.

5.8.1 Korokoro Access

Many submitters commented on access to Korokoro from SH2 and the impacts that the proposed Petone interchange will have for them. Common responses included:

- That little thought has been given to the impact of reduced access from SH2 for Korokoro residents.
- Losing Priests Avenue access would mean further detours for the hill communities to get home.
- Access to SH2 for Korokoro people may well be compromised.
- It is essential that Korokoro retains its entrance off SH2 and access to the north from SH2.

Many submitters also commented on past changes and how this affected access. Common responses included:

- Korokoro has already lost its full access to SH2 which the Dowse Interchange.
- That since the Korokoro overbridge was built, residents have had to join the massive backlog of traffic in Petone to be able to head south.
- That residents have also experienced negative changes to their route to Lower Hutt CBD.

Several submitters commented on the commuting times that have increased significantly (extra 15-30minuntes during peak times) as a result from previous changes to the Korokoro access.

Some comments concerning the legibility of access to Korokoro were also made where submitters outlined that visitors coming from Lower Hutt or from the north on SH2 would frequently get lost trying to find their way around the Dowse to Petone area.

It was suggested by several submitters that the access to Korokoro needs to be addressed before the plan proceeds any further.

5.8.2 Woodridge connection

Several submitters suggested that Woodridge should be connected to the Link Road with common responses including:

- Would like to see the Link Road from Woodridge to the proposed new Link Road also included with this plan.
- That this would save considerable travel time, usage of petrol and so less pollution for people that live in this area.
- That Woodridge neither has good northbound SH1 access nor good connections to the Hutt Valley.

5.8.3 Linking Mark Avenue to Jamaica Drive

Several submitters made the comments relating to linking Mark Avenue to Jamaica Drive. It was outlined that this would have the benefit of removing some commercial traffic from the Takapu Road intersection with SH1 exit road.

5.8.4 Impacts further up SH2

Several submitters highlighted the impact that more traffic on SH2 will have an impact further up SH2. Particularly in relation to the traffic lights at Melling where there are large delays at times.

5.8.5 Connections to Seaview and Gracefield

Connections to Seaview and Gracefield were consistently brought up by submitters, and have been addressed in the CVL and Esplanade sections of this report.

5.8.6 Cecil Road access

Impact on access along Cecil Road in Tawa was brought up by several submitters. Cecil road runs parallel and adjacent to SH1. There were concerns relating to:

- This being the only access route for two dozen or more properties in upper Cecil Road, Mayfair Place, Court Road north, and Carleton Terrace.
- Properties both to the north and south of this section of road are known to be in line for compulsory purchase and demolition should Option C go ahead.
- Concern that this road will also be affected.
- That certainty about the retention of this access needs to be given to residents.

5.9 Transportation modelling

Many different aspects of transportation modelling were discussed in submissions. Several of these were substantial enough to warrant dedicated sections such as:

- Petone and Tawa Interchanges;
- Cross Valley Link and The Esplanade; and
- SH58 and SH2.

Accordingly, aspects of transportation modelling have been included in these dedicated report sections.

The main points are summarised below and representative quotes can be found in Appendix A, section 13.8.

Many submitters questioned whether or not the spending of such a large amount of money was best put towards the P2G Link Road, with responses questioning the sensibility of a large expenditure of money to solve congestion issues that only exit during peak hours.

Many submissions stated that public transport should be more heavily incorporated into transportation modelling (also refer to the Public Transport section of this report). Responses included:

- That the focus should be on attaining modal shift.
- That choices should be made to better use existing infrastructure.
- That generally major projects such as this type should be avoided.
- Public transport needing to be factored into the modelling to ensure that the most benefits are gained.

Many submitters who commented on transportation modelling made points concerning traffic levels in Wellington and wider areas, with common responses relating to:

- NZTA travel time surveys indicating that peak travel times have stabilised.
- Wellington's traffic flows and vehicle mileage remaining static for a decade.

- Vehicle usage showing a world-wide declining trend, despite increasing population and GDP.
- Increasing petrol costs resulting in lower vehicle usage.

Many submitters put forward views that there was no consideration of traffic changes as a result of the construction of Transmission Gully and linkages to SH58 factored into the transportation modelling. This should also be referred to under the SH58 section of this report. Many responses concerning this were along the lines of:

- Insufficient consideration being given to the change in traffic behaviour caused by the interconnection of TG with SH58.
- The impact that this has on the extent of work required.

Many submitters also stated concerns and views that the transportation modelling undertaken had flaws. Common responses concerning these views relating to:

- Over-forecasting of long term trends.
- Little detail on the process and variables used for traffic modelling being provided.
- Questioning of the traffic modelling used.
- Questioning the assentation that traffic levels will increase following unchanging trends.
- Not considering that the modelling would stand up to scrutiny.
- The average daily figure used in the modelling being meaningless and that analysis of the flows at peak times is more relevant – as it's what roads should be designed to meet.
- That there is a lack of technical justification for Options C and D – with no analysis of road capacity, peak flows, comparisons with other roads, vehicle usage trends, and other applicable factors

Several submitters made suggestions that more in-depth and accurate modelling should be undertaken before the project is progressed any further with comments relating to:

- Recommending that the project is re-modelled using accurate systems.
- Certainty and transparency of process is followed through this process.
- Extensive community, local council and iwi engagement throughout the process.

Many submitters questioned the modelling which suggested the need for 6 laning (referring to both the widening of SH1 or the P2G Link Road) or the Takapu Option. Common responses included:

- SH1 / SH2 merge at Ngauranga is the main point of congestion on the state highway network in this area.
- Not considered that P2G would fix congestion problems.
- Does not consider that volumes projected require any widening or increased capacity.
- Changes in urban living and working options needing to be taken into account.
- Upon considering overall flows with TG and SH58 there may be no need to make the 9% hill section on P2G six lane, it may only need to be 4-lane.

Many submitters also commented on traffic numbers on TG (projected) and SH2 in comparison to forecasted P2G Link Road numbers. Common responses included:

- Comparative forecasted traffic volumes being less than those put forward by TG.
- Projected volumes are less than SH2 from Petone to Ngauranga and there are no plans to widen that stretch of road.

A few submitters commented that overall congestion could get worse through the development of more roads such as the P2G Link Road outlining that the proposed works will only reduce congestion in the short to medium term. In the long-term they will encourage more vehicle movements resulting in congestion returning to levels prior to the proposed changes.

- Modelling work on roading proposals being considered for the Wellington airport to Levin corridor shows they will only reduce congestion in the short to medium term. In the long-term they will encourage more vehicle movements resulting in congestion returning to levels prior to the proposed changes.

Several people considered that car usage would go up through changing technologies such as electric cars.

5.9.1 Tawa and Petone Interchange modelling

Substantial numbers of comments regarding the modelling of the Tawa and Petone Interchanges were received. These generally focussed on the inability of the interchanges as proposed to cope with demand. Each of these interchanges is covered in detail in separate sections of this report.

5.9.2 The Esplanade and Cross Valley Link

In the Petone area there were many modelling comments in relation to the impact that the Project might have on The Esplanade and the Cross Valley Link (CVL). The modelling comments put forward by submitters can be found in the appropriate sections of this report.

5.10 Network Resilience / Seismic Resilience

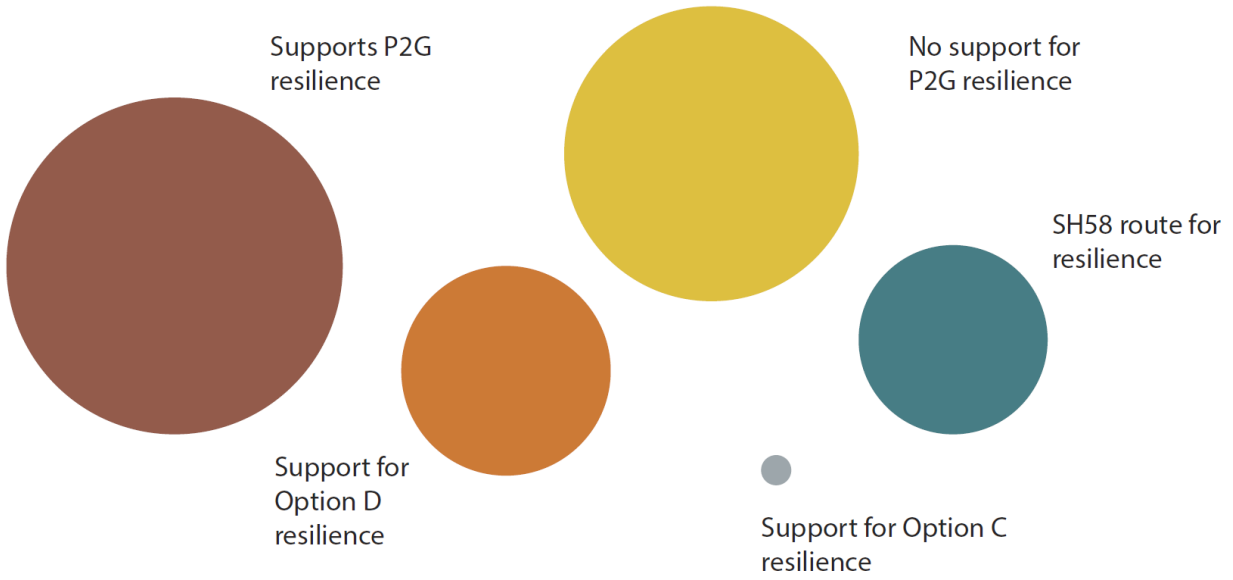

Figure 7: Network / seismic resilience comments

Network resilience as a topic was discussed frequently in submissions. The main points are summarised below and representative quotes can be found in Appendix A, section 13.9.

Many of these were generally supportive of the P2G Link Road being positive for network resilience with common responses such as:

- At present there is reliance on 3 roads, SH1, SH2 and SH58 and when one has a major accident it impacts on the others.
- Wellington residents will be less vulnerable to being cut off in a major earthquake and gives another option for the movement of freight.
- Resilience of the present roading network is weak. It is easily blocked by natural or man-made disasters.

- The resilience of the existing Petone to Ngauranga corridor must be improved for rail, vehicle and active transport modes.
- Helping to reduce congestion at the bottom of Ngauranga.
- P2G forms a strategic alternative in the event that SH2 between Ngauranga and Petone becomes unusable.

Many people also had general comments outlining that they did not view that the proposed P2G Link Road would improve resilience with comments such as:

- Would not have as great a resilience improvement when compared to upgrading SH58.
- Steep cuts proposed will be a risk in earthquakes and/or storms.
- Not considering that any P2G route materially improves resilience for the region.

5.10.1 Option C and Option D

Many people made comments comparing the resilience of Option C and Option D. A large number of these cited a preference for Option D concerning resilience with common responses such as:

- Option D provides an alternate route north should issue such as earthquake or accident close SH1 or SH2.
- A different route altogether makes far more sense.
- Option D would provide far better resilience in the event of crashes, roadworks or other events affecting roads.
- The more roads (and choices) the better particularly with regards a major natural event or serious crash.
- Option D will provide the Wellington Motorway System with greater flexibility and diversity.
- The more access roads into Wellington the better.
- The motorway widening will not increase the resilience of Wellington in an earthquake as it will not provide an alternative route.

Limited resilience for Option D was also cited by several submitters with comments such as:

- One-way ramps at the north end of Option D does not allow for traffic to turn towards Porirua.
- An additional highway, running parallel and in proximity with the existing one is unlikely to be any more resilience to natural disaster.

Several submitters outlined that they did not consider either Option C or Option D to be resilient and that there were flaws in the assessment of these. Common responses included:

- Consideration that the resilience study for P2G is fatally flawed.
- Consideration that P2G will provide no EQ resilience to the Hutt, and options C and D are the worst options for regional traffic resilience. Options A or B provide network resilience.
- SH58 presenting a much better option for overall network and earthquake resilience.
- Minor improvements for resilience are compromised by the negative impact of the moderate cuts required by Options C and D
- Consideration that the resilience specialist displayed a clear subjective bias toward Option D.
- Views that the benefits of Option D are negated by the fact that it cannot actually be used to route around blockage on the parallel stretch of SH1.
- None of the P2G options provide increased earthquake resilience for the Hutt Valley, because all of the roads connect to Petone.

5.10.2 Comparison to SH58

Many submitters made comparisons of the P2G Link Road to SH58, particularly in relation to gradients and cuts. This information can be found in the SH58 section of this report.

5.10.3 Concerns and Suggestions

Several submitters made comments with regard to P2G being near fault lines and other natural hazard risk areas. Comments included:

- Queries as to whether any roading structure that sits near the Wellington fault line would be able to withstand a significant earthquake, probable liquefaction and a possible tsunami.
- Implications with proposed route cuts up the side of an escarpment sitting on the fault line.
- Geological implications surrounding the Petone area with weak rock along the fault line.

A few submitters also put forward that they considered an alternative connection into Dowse would provide better network resilience.

5.11 Pedestrian and Cycling Facilities

Pedestrian and cyclist activities were commented on by a range of submitters. The main points are summarised below and representative quotes can be found in Appendix A, section 13.10.

Many submitters outlined concerns over how cyclists and pedestrians might be catered for. Common general suggestions included:

- Option D could be a popular cycling route.
- Any interchanges must also have facilities for cyclists and walkers.
- Cycling and walking facilities should be considered in the costs of the Project from the outset and not a later 'add on'.
- Physical separation of vehicles from cyclists and pedestrians is essential.
- If new roads are to be built, they need to be fully future proofed for a wide range of transport options including those for pedestrians and cyclists.

Many submitters outlined safety concerns for pedestrians and cyclists. Common responses included:

- Raised roundabouts such as that proposed at Petone and unfriendly for pedestrians and cyclists.
- The current interchange areas need considerable work to make them suitable for cyclists and pedestrians.

Cycling on the P2G Link Road route was discussed by many submitters with the vast majority in support of providing for cyclists with common responses such as:

- Consideration could be given to providing a cycleway on a separate alignment to the road.
- Full support for a cycleway being built alongside the full route of the proposed Link Road.
- The current route via the Ngauranga Interchange to Grenada is much longer so provision for safe cycling use should be included.
- Separation for cyclists at crossing points needs to be built into the design of P2G.
- Gradient does not stop cyclists and touring cyclists will go where the road goes but must be provided with safe riding space.

A few submitters stated that it was not necessary to provide for cyclists with comments such as:

- The gradient will be too steep to attract cyclists.

- The Link Road should be designated as a motorway so as to ensure cyclists cannot ride on it.

Many submitters also cited that more work needed to be done with cycling in the Wellington region through comments such as:

- NZTA is a multi-modal transport agency and should therefore be looking at its transport network and putting forward projects that will address the highest needs modes – including walking, cycling and PT.

Several submitters referred to the impact of the new Tawa Interchange on a walking track between Grenada North and the interchange outlining that this would be a huge loss.

A location for a pedestrian crossing over SH1 was put forward by one submitter:

- A potential location for a pedestrian bridge connection from reserve land at the end of Mervyn Kemp Drive (between no. 26 & 30) across to the area of bush immediately beside Bartlett Grove.

5.11.1 Pedestrian and Cycle Link between Belmont Regional Park and Petone Foreshore

One point that was specifically raised throughout the engagement period was the importance and value of creating a link between the Petone foreshore and the Belmont Regional Park (BRP) – 'Beach to Bush'. Comments regarding this aspect of the project varied, however most considered that providing such a linkage would be beneficial.

Common feedback/suggestions in support of providing a Beach to Bush link included:

- Support the idea and is greatly needed.
- Would result in greater recreation and commuting opportunities for cyclists and walkers.
- Safe, convenient and improved facilities will result in more usage.
- Both are popular recreation areas so it makes sense to link them.
- Could be a potential tourism loop.
- Would be good to reduce the severance that SH2 has between the two areas.
- Enhancing pedestrian and cycling access to the Cornish Street entrance to the BRP needs to be addressed as part of the project.

Common comments opposing the establishment of a Beach to Bush link generally related to people not seeing themselves using the link, or that other cycle ways/pedestrian facilities should be prioritised over the Beach to Bush link:

- Unsure of the benefits as does not cycle in the area.
- Other cycle initiatives could be a priority i.e. P2N cycleway.

5.12 Public Transport

The main points are summarised below and representative quotes can be found in Appendix A, section 13.11.

Common suggestions concerning Public Transport included:

- Extension of bus lanes along The Esplanade.
- Needing to maximise the number of commuters using public transport.
- If it is commuters that are intended to use the P2G Link Road public transport provision needs to be a key aspect.

Many Horokiwi residents made comments concerning public transportation to their area, with common responses including:

- Horokiwi residents need access to public transport.
- Public transport for Horokiwi would be especially beneficial for children in the area.
- That a bus layby and bus stop in each direction in a location as close to Horokiwi Road as possible could be provided at Horokiwi along P2G. Car parking would also need to be provided, but this would not need to be on the P2G road (i.e. could be on Horokiwi Road with walking tracks down to the bus bays).

5.13 Gradient

Many comments were received about a range of aspects of the project relating to gradient. The main points are summarised below and representative quotes can be found in Appendix A, section 13.12.

In terms of catering to heavy vehicles on the steep gradient there was general support with many outlining and agreeing with the need for crawler lanes to be provided along the steep gradient areas. However, several people also said that because of the gradient, the P2G Link Road route would not appeal to the trucking industry.

As outlined in the previous section many people made comparisons of the gradient between Option D. Many people cited a favourable point of Option D being an easier and more constant gradient in comparison to Option C with comments such as:

- The steadier gradient will be better for cars and trucks.
- The consistent height seems a benefit.
- It is most practical to keep the road at a consistent height and link this proposed Link Road to TG.
- The more constant gradient of Option D minimises total travel times, fuel consumption, exhaust emissions and noise production and consequent impacts on people.

5.14 Previous TG Route

Many comments were received about Option D being similar to the original Transmission Gully Route that went down the Takapu Valley. The main points are summarised below and representative quotes can be found in Appendix A, section 13.13.

Many of these related to the past ruling by the Parliamentary Commissioner for the Environment (PCE) with common responses relating to:

- The PCE report on the former roading proposal up the Takapu Valley had impacts that were too great to allow a road to be put through.

Many property owners in the Takapu Valley area expressed concern over the proposal to put a new road up the Valley, especially when some had been through this process concerning the original Transmission Gully. Several submitters highlighted the trauma of the previous process.

In contradiction, several of the submitters who made comments with regards to this, and lived outside of the Takapu Valley, put forward that it may be appropriate to re-look at the Transmission Gully route before it is constructed, and perhaps re-route this down the Takapu Valley as originally planned.

5.15 Roading structures

The majority of roading structures discussed focussed on bridges and tunnel options in the Horokiwi area. This information is covered in detail in the 'Horokiwi Connection' section of this report.

Many submitters also outlined that where farms were concerned underpasses would have to be supplied to ensure stock separation from the road and to enable machinery access.

5.16 Width

The main points are summarised below and representative quotes can be found in Appendix A, section 13.14.

Many people questioned the need for 3 lanes in each direction for the steep sections of the P2G Link Road with comments such as:

- Demand not justifying the required amount of earthworks.
- Unnecessary to have 3 lanes - 2 lanes would suffice in the steep gradient part and 1 lane on the level.
- SH1 and SH2 should remain as the main transport routes with no need for this to be a 6 lane road.

Many people also made comments about the width of proposed Option D with common responses such as:

- Limiting it to a two lane link as proposed seems short sighted.
- Allowance should be made so as to easily add another two lanes at a later stage.

5.17 Straightening Work on SH1

The main points are summarised below and representative quotes can be found in Appendix A, section 13.15.

In conjunction with the proposed SH1 widening straightening is also proposed. Several submitters outlined that they did not view that straightening (for safety reasons) was required as part of Option C as improved safety could be achieved through other means, such as reduced speed or improved signage. Several submitters pointed out that there are currently no signs advising people of a corner.

Several people also noted that if Option C was to go ahead that there should be control over truck engine braking down the hill.

5.18 Tolling

Tolling was one of the specific items that the project team was interested in finding out about from the community. There were a range of opinions put forward in response to this. The main points are summarised below and representative quotes can be found in Appendix A, section 13.16.

A similar amount of people said that they either supported tolling or did not support tolling, but many also had further questions, or would support tolling under certain conditions.

Common responses in relation to not supporting tolling included:

- High impact on Horokiwi community.
- There are no benefits to tolling.
- Would not be used / would avoid if it was tolled.
- Preference that it takes a bit longer to construct, but was not tolled.

Common responses in relation to supporting a toll included:

- As a temporary measure.
- If it was cheap enough ($1 or less) and could be automated.
- If it was a reasonable toll and it means P2G gets built faster.
- Tolling is a realistic and good way to get these roads built and paid off sooner.

Many people asked for more specifics or outlined dependent factors before commenting on tolling, with responses relating to:

- The cost.
- The sort of tolling system/method used.
- Whether or not any toll would be temporary or permanent.
- How much earlier a toll would mean that the road could be built.

5.19 Benefit Cost Ratio

Many comments were made by submitters in relation to Benefit Cost Ratios (BCR) generated and the analysis that was undertaken in relation to informing the evaluation of options. The main points are summarised below and representative quotes can be found in Appendix A, section 13.17.

Several submitters made comments about maintenance costs of roads outlining that these should be included in the costs of roading development. Several submitters also suggested that the BCR evaluation focussed on vague capital costs only.

Several comments were made requesting that the cost benefit analysis needed to include other social and environmental aspects such as visual and noise impacts and accommodation for walking/cycling along the new road.

Many submitters from Takapu and Tawa commented their view of the BCR of Option D and Option C with responses relating to:

- The extra costs of building the Takapu Link with several extra lane kms and two interchanges.
- 7,500 vehicles per day would not result in a high BCR.
- A higher BCR would be achieved if the existing network was upgraded.
- Questioning of where savings have come from in comparison to the PFR route.

Many submitters commented that a better alternative to improve the BCR of the project would be to improve SH58 with money saved by not doing Option D or the widening of SH1. Several considered that this would be a shorter route and would maximise value for money.

Many submitters commented on the estimated range of costs for each option being too large to inform a BCR with common responses relating to:

- The range of costs given in the scoping report for each option being too large.
- The margin of error for these values being equally too high.
- Consideration that a statement that all options are estimated to be the same cost is misleading.

Several comments were received which related to the amount of modelling undertaken to identify the BCR (this also covered in more detail in the Transportation Modelling section of this report). Several submitters outlined that there was less analysis done on Options A and B compared to Options C and D which made them look less desirable.

Many people commented on aspects relating to TG and how this will change preferred routes and BCR of the P2G Link Road. This is covered in detail in the traffic modelling section of this report. Generally such comments focussed on there being potentially less demand for P2G once TG is constructed and more people would use SH58. It was reiterated by many that this needs to be assessed and any influence incorporated into the design and scale of P2G (eg. the number of lanes required throughout).

Several submitters also commented on the BCR in relation to the cost of undertaking works in relation to costs associated with working on 'greenfield sites' as opposed to undertaking work in 'live environments'. As such it was put forward that costs of Option D could be cheaper than those of Option C when this is considered.

5.20 Congestion

The main points are summarised below and representative quotes can be found in Appendix A, section 13.19.

Submitters made comments regarding congestion concerning many aspects of the proposed P2G Link Road. Where many of these comments related to a single area the classification tree was adjusted so that this would be processed accordingly, for instance the Tawa Interchange and Esplanade sections. Each of these sections should be referred to for more detail. This section is intended to give a broad overview of the comments received concerning congestion.

There was a general consensus that an improved interchange is required at Petone with many comments highlighting the need to reduce congestion and improve travel times.

However, there was also concern over whether the proposed interchange would solve the congestion issues with many signalling the present congestion at the Hutt Road/ Esplanade intersection, and that adding a further road intersection here and brining more traffic to this pinch point won't help.

As previously outlined the proposed Tawa interchange was a cause of much contention for many submitters stating that this would result in severe congestion at the intersection.

In relation to SH1 comments varied with some supportive of changes and others viewing them as unnecessary. Many related to improvements being needed to reduce congestion, improve safety and make journeys more reliable and efficient. Others stated that SH1 does not currently experience congestion that would warrant improvements such as widening or straightening. Further themes for congestion focussed on the creation of bottle necks at interchanges and that congestion points would just be moved through P2G.

Some submissions indicated that there was insufficient information provided to adequately assess whether or not the issue of congestion was adequately resolved by the proposed infrastructure developments.

A range of suggestions were put forward through the submission process as to how congestion could effectively be reduced. Of those raised the suggestion made most frequently was to put funding toward State Highway 58 and State Highway 2 improvements.

6 Useful information for the next stage of the project

This section of the report looks at information and comments provided by the public that will inform the next stage of the project known as the scheme design.

6.1 Road design

6.1.1 Barriers (including noise barriers)

The main points are summarised below and representative quotes can be found in Appendix A, section 13.18.

The majority of comments relating to barriers focussed on the provision of noise mitigation throughout many areas of the proposal. Common responses related to:

- Provision of noise barriers to reduce noise where near houses.
- In other cities in NZ (i.e. Auckland) there is precedent for sound walls/barriers to be erected if the motorway is being widened.

Safety barriers were mentioned as a point of concern, particularly from residents adjacent to the motorway. Common responses relating to:

- Strong safety barriers (/noise barriers) being required to provide protection from errant vehicles.

A few submitters made comments surrounding the need for effective barriers to ensure stock did not venture onto the road and to limit them being spooked.

Many submitters that made comments relating to barriers noted that they would like to know more about specific measures that would be put in place such as planting, fencing and earth /noise barriers.

Note: further discussions around noise effects outlined in submissions are discussed in the construction and operational noise effects sections of this report.

6.1.2 Operational Network Connectivity

Many submissions were made regarding operational network connectivity. The main points are summarised below and representative quotes can be found in Appendix A, section 13.18.

Many submissions raised particular concern that the proposed route would further limit access to the Horokiwi and Korokoro community. As such this would introduce further peak time travel delays for residents accessing the motorway. Common responses related to:

- Loss of access to recreational areas.
- Lengthening of journey times to specific areas.
- Not providing access points from rural areas such as Horokiwi to P2G would further disadvantage those living in the areas.
- Consideration of further loss of access for Korokoro residents needs to be taken.

Some submissions raised concerns that the roading design discouraged used of the Petone to Grenada Link road because of the interchange layout options. Responses related to:

- The navigating of several roundabouts at the Tawa Interchange will put people off using the Link Road.
- P2G may not satisfy the connectivity demands of residents in communities living nearby.
- There are very few residents that frequent the northern suburbs.

Multiple submissions were received addressing concerns with regard to operational network connectivity for Takapu Valley. It was raised that the proposed P2G designs could impose restrictions on access to and from Takapu Valley. There was concern raised that this could impact residents who urgently need to travel to Wellington Central Business District. The potential exists that this could too impact emergency/ crisis services requiring access to Takapu Valley.

6.2 Environmental Effects

A range of comments were received concerning the environmental effects of the project. It should be noted that at this stage of the project limited work on environmental effects has been undertaken. However, these comments will be noted for use in the next stage of the project. It is also noted that in some areas there has been high level assessments which was fed into the option evaluation. Further more detailed assessments for these will form aspects of further phases of the project going forward.

Figure 8 illustrates the spread of comments by each environmental effect. This reflects the amount of text comments received concerning each meaning that submitters could have several comments for each if that was a focus point for their submission. It is intended to give a broad overview of the sorts of information that was received in terms of environmental effects. The relative size of the circles (diameter) indicates the proportion of comments associated with each topic.

This section of the report outlines the common themes/trends relating to each of these environmental effects. The environmental effects are discussed in no particular order.

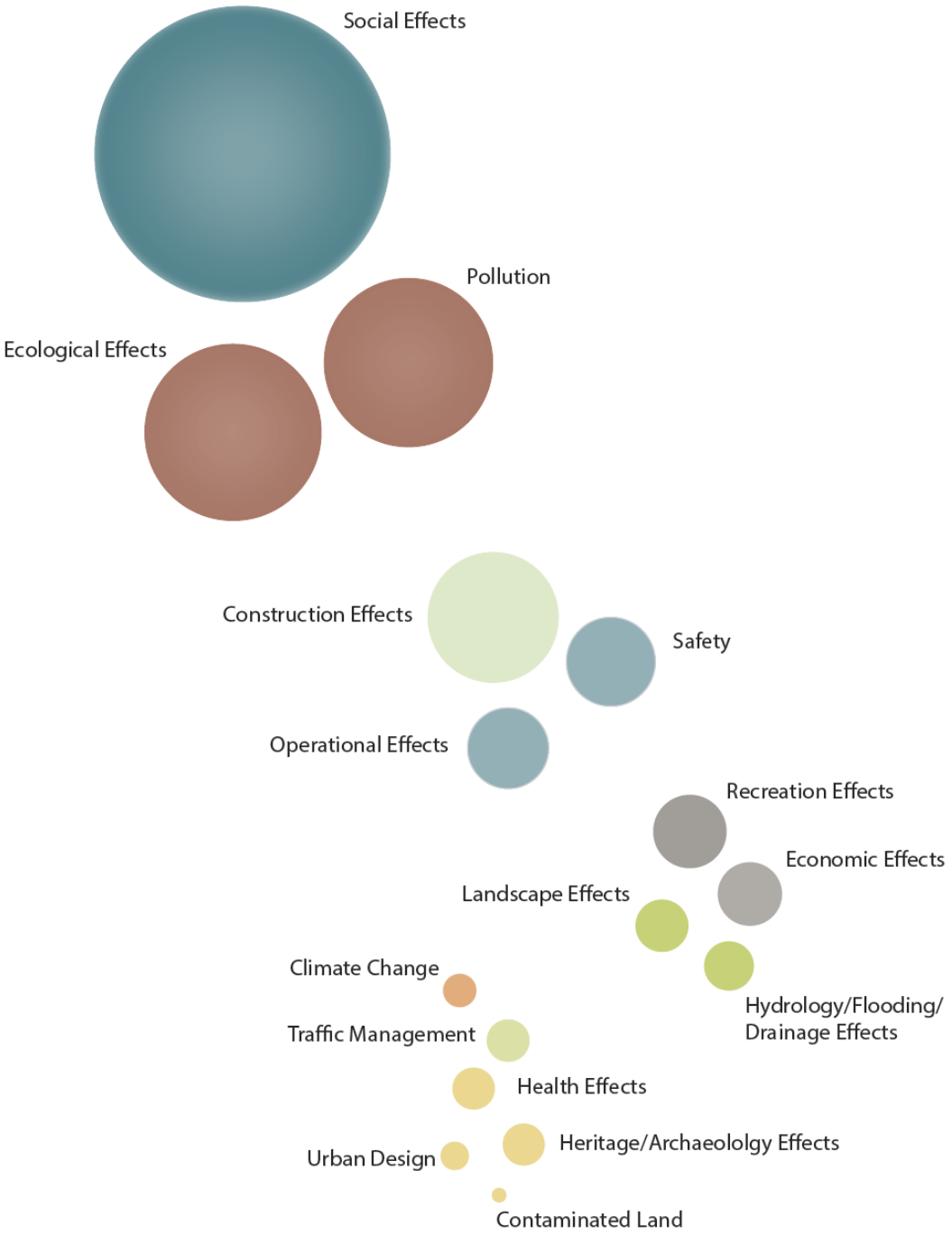

Figure 8: Representation of frequency of comments relating to environmental effects

6.2.1 Construction Effects

A range of concerns regarding construction effects associated with the proposed road were raised during the submission process. It should be noted that no work on construction effects has been completed by the project team to date. The main points are summarised below and representative quotes can be found in Appendix A, section 13.20.

There is concern about the effect of construction dust on communities lacking piped water supply, including the contamination of natural water streams.

Where construction effects were discussed in submissions general concerns raised related to:

- Loss of privacy
- Contamination of waterways and degradation of vegetation.
- Important for those who rely on rainwater.
- Personal/ Animal wellbeing
- Site worker access through properties
- Damage to properties.
- Traffic managements and diversion of traffic through Tawa.
- Concerns about traffic management through the Petone interchange.

6.2.1.1 Construction Dust

Many submissions made with regard to construction dust focussed on the contamination of water supplies in communities who lack piped water and impact on water in the area. Comments related to:

- Water and air quality issues needing to be acknowledged.
- Rain, bore and spring water sources are relied upon in the rural area.
- Impact on the Petone Beach and the harbour.
- Construction dust will adversely affect animal feed and health.
- Construction dust will downgrade the quality of fleece of animals shorn.

6.2.1.2 Construction Noise and Vibration

A range of issues were raised in regards to the effects of construction noise including:

- Length of construction period.
- Use of heavy machinery.
- Impact on schools and residents.

Many submissions also highlighted ways in which noise effects could be minimised such as the double glazing of windows and provision of noise walls.

6.2.2 Contaminated Land

The main points are summarised below and representative quotes can be found in Appendix A, section 13.21.

Overall, not many comments were raised in submission with regard to contaminated land. Of those submitters who mentioned contaminated land, some submitters expressed support for Petone Interchange Option 4 as it avoided any contaminated land sites and traversing through the quarry.

However, some comments raised issue with avoiding contaminated sites highlighting that the roads should be going through such land so as to avoid using pristine land.

Some submitters commented that developing the Link Road over the contaminated land and quarry site would mitigate landscape and visual effects. Other benefits raised concerned the development of the Link Road through the contaminated site would include improved noise mitigation and a gradient less steep than what is currently proposed.

6.2.3 Ecological Effects

Ecological effects of the project represented a substantial proportion of submissions that were received. The main points are summarised below and representative quotes can be found in Appendix A, section 13.22.

Many submissions stated that the project had considered effects relating to the BRP, (through the avoidance of this), but that other areas of the proposed alignments had not been considered to the same extent. It was put forward that more attention needed to be placed on the ecological corridors in Northern Wellington.

Potential marine ecological effects associated with potential reclamation of the harbour and sediment runoff was identified by many submitters outlining that any spoil dumped into the harbour would be costly and unacceptable for ecological reasons.

Other common comments included those relating to weed and pest control with many submitters outlining that road corridors can become an enclave for weeds such as gorse to thrive.

Ecological comments received concerning the following areas are below.

- Korokoro / Belmont Regional Park ecological effects
- Horokiwi / central area of the project ecological effects
- Takapu Valley

6.2.3.1 Korokoro/ Belmont Regional Park ecological effects

The avoidance of the BRP was considered a good thing by the vast majority of submitters with common responses relating to:

- Avoidance of BRP is favourable.
- Support the Korokoro Valley, Korokoro Stream and BRP being avoided.

Even with this avoidance many submitters considered that there would still be an effect on the Korokoro Stream through sedimentation and the impact on flora and fauna. Many submitters also made comments requesting that the Korokoro Stream be protected from any adverse ecological effects.

6.2.3.2 Horokiwi / central area of the project ecological effects

Many submitters from Horokiwi outlined the effects that the P2G Link Road could have for the regenerating flora and fauna in the area with comments relating to:

- The disturbance to the regeneration of the both flora and bird life.
- Horokiwi being an ecological enclave of old growth forest and regenerating bush, and increasingly an established haven for native flora and fauna, some of which is rare.
- The buffering of Horokiwi from P2G by reserve areas.

Several submitters also pointed out that the Horokiwi area provides buffer zones and ecological corridors and that these areas must be protected. Further comments related to:

- The construction of P2G will interrupt these areas.
- There has been a huge amount of work put into these areas.

Several people outlined that if gorse was allowed to flourish following construction then this could cause a fire risk. It was recommended that there needs to be a clear plan for bush – re-vegetation to lower the risk of fire.

6.2.3.3 Takapu Valley

A substantial proportion of comments relating to ecology were from people within the Takapu area and focussed on a range of aspects. General comments relating to ecological effects of Option D focussed on the Takapu Stream, birdlife and weed/pest control.

Concern was aired that many considered that NZTA had not advised how these areas would be protected.

Takapu Stream and aquatic life

The Takapu Stream was identified by many as highly valued with common responses related to:

- Takapu Valley being one of the last undeveloped headwaters of the Porirua Stream.
- High abundance of native aquatic life in the Stream, and in some cases the only place where specific species are found in the area.
- Several 'mini wetlands' throughout the Stream within the Takapu Valley.
- Impact on these areas through the change of water quality.

Sedimentation was identified by several as a key concern in relation to the effects of Option D on the Stream with comments relating to:

- The loss of topsoil and waterway contamination during construction.
- Silting throughout the Takapu Stream.
- Decreasing of vegetation along the Takapu Stream and tributaries.

Birdlife in Takapu Valley

Many submitters commented on the birdlife in the valley with common responses relating to:

- Significant risk to birdlife.
- Many rare/endemic species being present in the Takapu Valley.
- The risk of vehicles killing/injuring birdlife if a high speed road was put through the Valley.

Many submitters commented on regenerating bush areas in Takapu with a responses relating to:

- That there has been substantial work by residents to plant and control weeds in the Valley.
- That planning has been specifically undertaken to attract native birds and other wildlife, creating bird corridors where before it was just plain sheep pasture.
- There is now an abundance of birdlife due to this effort.

Several submitters made comments concerning weed and pest control with responses relating to:

- The property owners of Takapu Valley undertaking extensive weed control to fight gorse, blackberry.
- Concern that NZTA acquired land for the road would not be as controlled.
- Pest control in the valley including; trapping of possums and stoats, and keeping the numbers of magpies and rabbits down.

Some submitters suggested that Belmont Regional Park could be extended to the eastern side of the Option D road thus extending the protected ecological area of the park.

6.2.4 Economic effect

A range of viewpoints were submitted with regard to economic growth and the economic benefit of the proposed Petone to Grenada Link Road, with regard to several stages of the project. The main points are summarised below and representative quotes can be found in Appendix A, section 13.23.

Various concerns were raised during the submission process as to whether or not the economic benefit could be measured adequately in light of negative community impacts. It was noted by several that this also needed to be weighed against general community benefit.

Some comments raised concern that incorrect traffic modelling inflates economic benefits which will not be realised. It was put forward that modelling was not consistent with any other statistics for traffic movements in and out of Wellington, questioning the proposed economic growth that would result from the project. It was also put forward that congestion and queuing would have a detrimental impact on the economic effects of the project.

A large number of comments reflected submitters who raised particular concerns over the cost of the project and whether the cost could be justified adequately with comments relating to:

- Cost estimates of the project.
- Traffic modelling impacts on what the project is forecasted to deliver.
- Higher economic return might be delivered through better maintenance of existing infrastructure.

Some owners of property in the affected Korokoro Industrial area cited concern about lack of industrial/commercial development areas in the region and that this should be taken into consideration.

Several landowners, particularly in the Takapu Valley area outlined that their land would likely not remain being an economically viable unit if any land was lost:

- The alignment impacts on the best/flattest paddocks.
- If anything we need the farm to be bigger not smaller.
- Impact on most productive parts.

Of those who felt the road provided an economic benefit to the wider region this was through reduced congestion and improved and reliable connectivity of the region. Responses related to:

- This route becoming increasingly important.
- Benefits relating to LCV (and occasional HCV) movements will be delivered.
- That both Options C and D should be implemented to provide greater connectivity.

Many viewpoints and concerns are raised through the process; however, there were also comments that highlighted the importance of the road to the greater region and that this is best realised not only in terms of cost, but also in the potential for development.

Some comments reflected the support of intensification of residential, commercial and industrial activities for Petone, Seaview, Gracefield, and Grenada North as a result of the proposed road, thus adding economic benefit to the region.

6.2.5 Health Effects

Many submissions have been made highlighting concerns of negative health implications of the proposed road on both residents and animals who would both directly and indirectly affected by the presence of the road. The main points are summarised below and representative quotes can be found in Appendix A, section 13.24.

These concerns have been grouped in to sections relevant to the effect of noise, dampness, respiratory problems, chemical exposure, stress, sleep disturbances and active lifestyle effects.

6.2.5.1 Noise

Many submissions were received raising concerns to the health implications of traffic noise. Concerns raised are in light of additional traffic and new types of vehicles travelling existing roads as well as the closer proximity or roads where they already exist or the introduction of new roads to communities.

Many submissions put forward were concerned about the detrimental effects of traffic noise on human health. Submissions highlighted that constant noise disturbance had the ability to introduce multiple disruptive health issues including but not limited to headaches impaired task function, damage to hearing and so on. Common responses were such as:

Of particular concern in submissions was submitters' reduced ability to open windows while sleeping as the fumes and noise would be damaging to residents' health.

6.2.5.2 Dampness

There were few concerns made with regard to the proposed road increasing dampness around property. Where concern was raised, submitters felt the height would limit the available sunlight their property had, contributing to a damp and mouldy environment.

6.2.5.3 Pollution

Many submissions raised concerns with regard to the exposure of pollutants present in the exhaust fumes of vehicles discussing the health implications of such exposure to humans and animals. Concerns relating to chemical exposure included the following.

There was concern that pollution will settle in the Takapu Valley due the geographical characteristics of the valley and prevailing winds. While winds may clear the pollution eventually it was outlined that this can't be done without further exposing parts of the valley to such pollution.

Submitters highlighted that exhaust fumes from diesel engine vehicles release fine particulate matter into the air which can exacerbate respiratory and cardiovascular illness. The exposure to the pollutants present in such fumes was cited by some as also having impacts on premature birth rates.

Concerns are also raised regarding the exposure to dioxins which are a by-product of the fuel combustion chemical reaction. It is highlighted in submissions that the World Health Organization introduced no safe exposure level. Submitters commented that dioxins enter the food chain when ingested by grazing mammals and fish. As such the nutritional value of dairy, meat and fish produced on farms (serving both personal and commercial purpose) present in Takapu Valley could be compromised where livestock are exposed to such chemicals and contaminated water supplies.

6.2.5.4 Respiratory Effects

Some submissions raised concern as to negative respiratory effects the proposed motorway would introduce or aggravate. These effects were identified in some scenarios a consequence of the exposure to chemicals in fumes highlighted in the above section. Some submitters highlighted that they would be uncomfortable opening their windows to ventilate their properties as they would be concerned they were exposing themselves unnecessarily to more fumes, especially those suffering from asthma.

6.2.5.5 Stress and Anxiety

Many submissions were made regarding the stress of the proposed road on residents in affected areas. It was outlined that the stress and anxiety caused is stemmed from but not limited to the inconvenience of construction, damage to or loss of properties, noise and so on. Concerns raised relating to stress and anxiety stemmed from residents' inability to relax in their homes while construction was underway.

It was further raised that students and staff of affected schools may face increased stress and anxiety due to increased noise during construction and after as this would make it more difficult to concentrate, especially during exam periods.

Submitters commented that the invasion of privacy due to proximity of the proposed motorway to homes would increase stress and anxiety.

6.2.5.6 Artificial light

Submitters also raised concerns regarding the effect of artificial light on their sleeping patterns. In particular, concerns highlighted regarding such submissions related to:

- Concerns that light pollution would interfere with the circadian rhythms of humans and animals.
- Melatonin, the naturally occurring hormone that regulates the sleep and wake cycle, is acutely affected by light pollution and deficiency can result in anxiety, mood disorders and insomnia.

It was also highlighted that the health of birds, insects and other animals would be negatively impacted through excess exposure to artificial light with comments concerning:

- The feeding, mating and migration cycles could be impacted.
- Nocturnal bird hunting and migration behaviour could be affected.
- Amphibian feeding and mating behaviour.
- Insects drawn to light, such as moths, would have increased predation vulnerability.

6.2.5.7 Active Lifestyle Effects

It was raised during the submission process that a consequence of uptake of school grounds and sport fields could interfere with the recreational activities of specific user groups.

Concerns raised included:

- Reduced facilities through the loss of sports grounds.
- Reduction in choices for sport.
- Reduction in facilities for sports clubs.
- Crowding / overcapacity for remaining sports grounds.
- Extra travelling to get to other fields.

6.2.5.8 Health Related Policy

Multiple submissions were received raising concerns around policy involved in mitigating or quantifying health impacts.

Some concerns raised include:

- The lack of legal requirement on reduced car emissions.
- The volume of emissions as car usage increases with more roads.

Several submissions raised the concern that harm or negative health impacts are intrinsically difficult to quantify. It was recommended that effects on health of communities needed to be quantified.

6.2.6 Heritage Effects

There were a range of comments received regarding Heritage concerns. The main points are summarised below and representative quotes can be found in Appendix A, section 13.25.

Compulsory property acquisition of Heritage sites were raised as an issue, specifically relating to:

- The Woollen Mills stone wall on SH2, built in 1886. Demolition, relocation or reconstruction of this heritage structure was not seen as an acceptable course of action.
- The Athfield Architects house at 200 Horokiwi Road (circa 1977).
- The two heritage listed houses in the Takapu Valley, associated with farms operating by the same families since the 1800s.

Other comments related to potential Heritage issues with the project included:

- That the proposed motorway would damage the heritage fabric and feel of Takapu Valley forever.
- That the proposed road would impact the heritage aspect of the farms in the Takapu Valley.
- That the route is historical and had possible archaeological importance, not yet explored. It was also a passage of importance to Maori and in the settlement of Tawa.
- That the long equine history in the area may not be preserved and this needed to be mitigated.

Comments were also made which emphasised that there were no heritage issues with the proposed road, for example:

- Option D and the modified Option D eliminate most, if not all, social and land use impacts, because it does not split the residential-rural community.
- Takapu Valley is becoming increasingly urbanised and less rural in character and as such has no archaeological, cultural or heritage qualities.

6.2.7 Rivers, Streams, Hydrology and Access to Water

The main points are summarised below and representative quotes can be found in Appendix A, section 13.26.

A range of comments regarding hydrology, flooding and drainage effects of the proposed road were received regarding the project. It should be noted that very limited work on these matters has been undertaken to date, as this will be a subject for the next project stage.

It was suggested that the Korokoro stream should become day-lighted, however the construction of the motorway would potentially increase its level of shadiness.

Responses related hydrology and stream health related to:

- Measures being implemented to improve stream health.
- Requesting confirmation that any water discharged into the harbour will be of an appropriate quality.
- Concern regarding build-up of vehicle emission deposits.
- Silting of waterways during construction.
- Flow on effects on wildlife.

Comments related to farming and residential effects related to:

- Water access could become an issue for stock.
- Impacts on people and animals needing to be considered in the context of impacting on waterways.
- If there are risks of toxic runoff.

- There was a concern that those who rely on spring water or bore water may lose their water supply.
- Negative impacts on the water catchment of the Takapu Valley.
- Impacts on the ability to collect safe food from the Takapu Stream.
- Impact on education uses of the Takapu Stream.
- Concern over increased runoff not being accounted for in the existing bridges and culverts.

Comments relating to management of hydrology related to the project related to:
- Detailed stormwater design needing to be undertaken to be able to handle runoff during both construction and operation.
- Potential to cause flooding issues for the area.
- Requiring increased drainage needs to be considered carefully.
- Could provide the opportunity to mitigate flood risks in some areas depending on the option selected.
- Concern about where storm water drains would need to be laid, in particular, whether or not these would further disrupt residential properties in the area.

6.2.8 Landscape and Visual Effects

A range of concerns about the visual impact of the proposal on the landscape were raised in the submissions. The main points are summarised below and representative quotes can be found in Appendix A, section 13.27.

Submitters were concerned about their properties being devalued with comments relating to:
- Property devaluation and our current outlook/view destroyed.
- Loss of equity associated with the visual impacts.
- Loss of serenity.

A large number of comments reflected concerns with changes to the look of the landscape during and after construction of the proposed roadway, with responses relating to:
- Scaring of the landscape.
- Significant cuts impacting on views from Petone and Korokoro.
- Alternative options such as tunnelling should be considered.
- Measures to minimise visual impacts should be investigated.

A large number of comments also reflected submitters' particular concerns with the visual impact of their view of the night sky. Comments related to:
- Visual impacts not just limited to daylight hours
- Night time lighting will produce significant impact.
- Roading lights for safety will further destroy the night sky.
- This will be seriously compromised both during the construction phase and afterwards.
- In rural areas there is no lighting in the beyond very low density house lighting.

Some comments reflected particular concern with how both light pollution and scaring would impact on animal and bird populations which is covered in more depth in the ecology section of this report.

Some submissions made particular reference to the visual impact on Belmont Regional Park, in addition to impacts on wildlife.

6.2.9 Operational Effects

A range of submissions were received relating to the operational effects of the proposed road options. The main points are summarised below and representative quotes can be found in Appendix A, section 13.28.

These operational effects can be grouped into three types; operational noise, operational network connectivity and operational dust. Where these submissions have referred to causes or consequences of these operational effects; these have been further explained in the relevant sections (e.g. air pollution, light pollution, water pollution, health, and so on).

Submissions made regarding operational effects were provided in context to Option C or Option D. In general concerns raised with regard to operational effects of Option D focussed on the detrimental effect of the road on the quality of life and damage to ecology.

The below sections offer further insight into the opinions and concerns raised, regarding the operational effects of the proposed roads, through the submission process.

6.2.9.1 Operational Dust

Concerns raised during the submission process in relation to operational dust include:

- The continued and prolonged contamination of water supplies to residents of communities who rely on rain water. They feared the contaminants in their water would include, but not be limited to diesel fumes, brake dust, etc.

Some submissions raised the concerns of operation dust dirtying homes and cars highlighting difficulty involved with cleaning their properties and/or vehicles as the road dirt can be difficult to remove

Several submissions were made where concerns were raised that as residents they could no longer adequately nor safely ventilate their homes by simply opening their windows as this would expose them to operational dust, fumes and pollutants from traffic travelling on the proposed roads.

6.2.9.2 Operational Noise

Many submissions raised concern over the Operational noise of the Road on communities through which the road will run.

Submissions echoed the importance of silence to their communities and how any operational noise would alter their community. Submitters felt that the operational noise would affect how they enjoy their home life, suggesting they would be unable to enjoy time outside or open their windows at times.

Concerns were raised that the geographical shape of Takapu Valley and Tawa would resonate and echo traffic noise, disrupting the quiet valley. There is particular concern about the disruptive nature of operational noise during the evening and early mornings.

Many submissions raised particular concern about the presence of heavy commercial vehicles (HCV's) and high productivity motor vehicles (HPMV's) travelling through Takapu Valley as part of a Seaview to Transmission Gully route. There was particular concern that such vehicles are not subject to objective noise testing. Submissions expressed concern that these vehicles would pose a significant noise nuisance to residents in the area and the impact and disruption of the noise on their lives couldn't be quantified.

There was further concern that engine braking by such vehicles would be a noise and disruptive practice, particularly at night. Submitters suggested that to prevent disruption of engine braking to residents, the practice be prohibited in such areas.

There is concern raised regarding the mitigation of operational noise, in light of existing operational noise. Residents are concerned that the addition of two lanes and noise associated with increased traffic flow would be difficult to mitigate if existing land barriers are removed to provide space for the widening of the motorway for Option C.

Submitters felt that it was NZTA's responsibility to provide adequate noise mitigation and recognise that the communities affected by the proposed road value the quiet and rural feel of their communities.

6.2.10 Pollution

Pollution was discussed by many submitters. The main points are summarised below and representative quotes can be found in Appendix A, section 13.29.

A range of pollution aspects were discussed by submitters. Many submitters outlined that in their view these could not be mitigated and would destroy the areas particularly those that are rural in nature with responses. Others considered that any mitigation would be little more than token.

It is noted that aspects of pollution have been discussed in previous sections of this report. These have been broadly grouped in to the major pollution categories of air, light and water pollution and each of these are now addressed in turn. Please note that the unnecessary repetition of facts has been avoided.

6.2.10.1 Air Pollution

Many submitters commented on geographical features, such as hills, having an impact on air quality when roads are put through. Submitters commented that settlements in locations with geographical features such as valleys or low-lying land surrounded by hills are often more susceptible to a build-up of pollution.

Many submitters commented on the aspect of the alignment introducing vehicle pollutants to currently rural areas that currently only experience local residential traffic.

6.2.10.2 Light Pollution

Many comments, particularly in relation to the Takapu area commented on light pollution aspects with comments relating to:

- The introduction of light pollution to a rural area
- Spill light may occur from the project when lights shine beyond the property lines, unintentionally illuminating other areas.

Light pollution impacts on wildlife was also discussed with comments such as:

- Luminous pollution affects the feeding, sleeping, mating, and migration cycles of all wildlife.
- Artificial light affects amphibians, causing confusion and disorientation, which causes a decrease in feeding and mating.

6.2.10.3 Water Pollution

The impact on drinking water sourced from roof tops outlined in the air pollution impacts would also be applicable with many residents expressing this concern over maintaining access to a clean, safe drinking water supply.

Runoff from roads was highlighted by several submitters with contaminants and pollutants in runoff entering watercourses causing quality issues.

Water quality impacts during the construction of the project were also highlighted by submitters.

6.2.11 Recreational

The main points are summarised below and representative quotes can be found in Appendix A, section 13.30.

Recreational effects largely focussed on several topics

- Belmont Regional Park;
- Grenada North Park;
- The Petone Esplanade; and
- The 'Beach to Bush' link.

Submissions highlighted various viewpoints on the effect of the proposed road on recreational activities in the affected areas. Submitters raised the importance of use and access to Korokoro, Belmont Regional Park and the Petone Esplanade for cyclists and walkers, offering multiple personal accounts of recreational activities done in these areas.

Submitters were concerned that the road would negatively impact current and potential recreational use of the Petone Esplanade, Belmont Regional Park and Korokoro area. Many submissions highlighted that "the loss of recreational amenities and a unique rural environment within minutes of a city" was a big concern for them. Comments related to:

- Access via Cornish street being compromised.
- The scale of interchange impacting on amenity value of the walking track.
- Will result in more disjunction between the beach and bush.

Submitters highlighted concern over further traffic along The Esplanade with comments relating to:

- There being further disjunction between Petone and the foreshore.
- The road will be too busy to cross.
- Safety of recreational users will be an issue.

The majority of submissions made regarding the Petone Foreshore Pedestrian Cycle Link to the BRP were in support as outlined in the dedicated section of this report. Of those who provided viewpoints on the inclusion of this infrastructure in relation to the proposed road themes discussed included the recreational activities, safer active transport, and improved business patronage. Comments related to:

- Encouraging and promoting walking and cycling through the improved access to recreational areas such as Belmont Regional Park and the Petone Esplanade.
- Concerns regarding the severance the increased traffic could generate between the recreation amenities in the area.
- Previous projects in the area have reduced this linkage.

Many submitters outlined the recreational impact on the BRP through potential limitations of access to the park. Common responses related to:

- Further access to BRP being cut off.
- How recreational areas such as BRP so close to a city are rare and that it should not be made harder to access.
- Takapu Valley being a key access point to the park.
- There being little consideration to users of BRP.

A few submitters also outlined that this could be an opportunity to improve access to the BRP elsewhere such as additional locations off Horokiwi Road with comments such as:

Others outlined the use that they have for Takapu Valley for recreation purposes with responses relating to:

- Schools field trips.
- Clubs using areas in Takapu Valley.
- Education.
- Exercising.

Several submitters outlined a range of groups/teams whose recreational activities would be impacted on through the impact on the Grenada North playing fields associated with Option D. It was outlined that these include, but are not limited to, Walkers, Tramping Clubs, Horse Riders, Cyclists, Schools, and Sports Clubs, such as Athletics, Rugby, Shooting and Soccer, who currently use the Grenada North Sports fields. Many comments opposed or expressed concern over the impact of Option D on the Grenada North Playing fields with common responses relating to:

- Concerns over when and where replacement fields might be supplied.
- No suitable alternatives to the playing fields nearby.
- Sports fields in the area are already at capacity.
- Detrimental impacts on sports for younger Wellingtonians.
- Lack of acknowledgement of any impacts on the fields in the scoping report.

Several people noted that, should Option D be chosen that the alignment should be moved further to the east to limit the effect on the sports fields at Grenada North.

6.2.12 Safety

Safety aspects relating to a range of topics and features of the proposal were discussed by submitters. The main points are summarised below and representative quotes can be found in Appendix A, section 13.31.

Many of these cross over with other categories and are covered in more depth elsewhere. These include:

- The Beach to Bush link and the impact on pedestrian and cyclist safety that this might have – Refer to 'Pedestrian and Cycle Link between Belmont Regional Park and Petone Foreshore' section.
- Water and air quality – refer to 'Health Effects' and 'Pollution' sections.
- Security around Horokiwi and access – refer to 'Horokiwi Connection' section.

Other sections also touch on safety implications. All of these have distinctive safety implications whereby submitters have asked that these are included in decisions.

Some considerations are harder than others to factor in. For instance, several submitters highlighted the weather conditions along the top of the Wellington escarpment including

- Thick fog throughout Horokiwi having implications for the safety of drivers and other users.
- It will be subject to extreme winds and frequent cloud and mist cover.

It was pointed out that high winds increase the likelihood of accidents, especially of high-sided and heavy vehicles, like trucks, or smaller, lighter vehicles.

It was considered by many that safe and potentially separated pedestrian and cycling facilities should be provided on P2G. It was reiterated by many submitters that if Option C was to go ahead there could be significant safety implications for pedestrians and cyclists in Tawa as traffic may divert through Main Street to avoid works on SH1. This was outlined as particularly relevant when considering the number of children walking to school. It was put forward that significant traffic management would be required if traffic levels were to increase through Tawa during construction and that out other routes may have to be developed to take traffic flows.

6.2.13 Social/Community Effects

Social effects were one of the main effects of the proposal that was discussed by submitters. Many made general comments, with some having more specific reference to an area. The main points are summarised below and representative quotes can be found in Appendix A, section 13.32.

Many comments focused on the social impacts of both Options C and D with common responses relating to:

- Option C being devastating for a lot of families.
- Proximity to local schools.
- Takapu being a lovely rural area where people's lifestyles will be dramatically changed.
- Both Options having serious effects for Tawa.
- Requesting that both Options be withdrawn due to the social and community effects.

Many people stated that they did not consider that social and community impacts were adequately taken into consideration through the evaluation criteria.

Several people discussed the stress of the project and the impact that this will have on their lives and those of their families. Many people outlined that the cumulative impacts on the communities involved should warrant the project to be pulled.

Of those submissions that focussed on the social impacts of the project, some related to specific areas. These were:

- Horokiwi
- Korokoro
- Grenada
- Takapu
- Tawa

An overview of the social issues identified in submissions for each of the sites is now provided below.

6.2.13.1 Horokiwi

Several submissions outlined a preference for alternative routes to be adopted that would lessen effects on the community. These routes included:

- Through the Quarry so as to skirt Horokiwi.
- Returning to the route proposed in a detailed consultation process with WCC and NZTA in 2009-10.

Many submitters outlined that they considered that the effects on the Horokiwi community would be substantial with common responses relating to:

- There being a substantial social impact for Horokiwi.
- All residents would be affected in this aspect.
- Cutting the community in two.
- Many social effects on the community will not be able to be mitigated.

Many Horokiwi residents also put forward a position that they accept that the P2G Link Road may go ahead and would like to ensure that effects on the Horokiwi community, residents' lifestyles and properties are minimised.

In maintaining the connection between Horokiwi north and south of the proposed alignment many submitters signalled a preference for a bridge connection as a key aspect of maintaining social connections within their community.

Petone was identified by many as the social centre for the Horokiwi community which is used for schooling, shopping and other activities with many residents also working there. Maintaining a connection to Petone was identified as an important social consideration by many Horokiwi residents.

6.2.13.2 Korokoro

Visual and sound pollution was identified as a social issue that many Korokoro residents brought up in relation to social impacts. Common responses related to:

- The visual and sound pollution of the escarpment should be minimised.
- Many residents are concerned about what they will see from Korokoro.
- Living on the hills next to and overlooking the Korokoro Valley is very important to residents' sense of place.

Some residents also considered that the social impacts for the Korokoro area were not adequately considered in the scoping report.

6.2.13.3 Grenada

Effects on Grenada generally focussed on those social effects outlined above. Landowners in the area are not supportive of the proposals which impact on their (in many cases) recently bought properties. Many outline that this is having a definite impact on their lives citing stress, lack of options.

Many such residents have asked that these options be adjusted to minimise these effects by moving the position of both option C & D to be further east and not pass through the residential area of Grenada Village as planned at present.

People also highlighted the loss of accessibility through the removal of a walking route from Grenada North down to the Tawa Interchange associated with both options and the difficulties the proposal will have for navigating this route.

Overall, many submitters from these areas considered that the project would have a definite impact on their lives.

6.2.13.4 Takapu

The majority of residents in Takapu Valley considered that the social effect of Option D on the community would be substantial. Many cited the following social reasons for opposing Option D:

- Loss of homes and property.
- Loss of community.
- Increased anxiety and stress.
- Devaluation of property.
- Noise and pollution.
- Loss of way of life.

Several submitters considered that the social impacts on Takapu had not been adequately considered in the Option evaluation, especially when compared to what was stated about Horokiwi in the scoping report. Some suggested that this had not been done as an honest assessment concerning the negative impact on Takapu would damage the chances of Option D being considered.

Some submitters who lived outside of Takapu Valley considered that Option D should be chosen due to comparatively lower social impacts in relation to:

- Lower population density.
- Impact of noise and pollution would be less than Option C.
- It could be varied by moving the alignment further to the east to lessen the impact.

6.2.13.5 Tawa

Many submitters have highlighted social reasons for their opposition to Option C with common responses relating to:

- Extra lanes not justifying the impact on families.
- More people being impacted on through Option C.
- There being impacts on the schools adjacent to the motorway to be widened.
- There being major disruption to the Tawa community during construction.

Many people who commented on social impacts on Tawa commented on the effect that it could have for schools in the area with common responses relating to:

- This aspect will affect all who have children in the area.
- Loss of classrooms.
- Greater risk factor for the Tawa College community.
- Impact on teaching space and capacity of the schools.

Several also mentioned the safety implications for children should additional traffic be routed through Tawa during construction. Many referred to the high numbers of children that walk or cycle to school.

Several people, predominantly those that did not live in Tawa, signalled the fact that the motorway already being present will result in an insignificant change with responses relating to:

- There is already a motorway environment there.
- Residents there already live with a motorway in proximity.
- Widening the motorway will not have a significant increase in effects for Tawa.

6.2.14 Traffic Management

In relation to traffic management, a range of comments were received from submitters about traffic volumes. The main points are summarised below and representative quotes can be found in Appendix A, section 13.33. Common comments included concerns about increased traffic volumes and traffic management relating to:

- The effect along roads in Petone.
- How the Tawa Interchange will be able to work effectively.
- Impact on traffic levels on SH1.
- Increased pressure on local roads.
- Impact on traffic volumes of Tawa Roads during construction.

A number of submitters commented on the unreliability of forecast data used to project traffic increases and justify increasing road capacity stating that often trends are over-forecasted.

6.2.15 Urban Design

A range of comments were received regarding urban design issues associated with the Petone to Grenada Link Road. The main points are summarised below and representative quotes can be found in Appendix A, section 13.34.

Several people outlined that for the Beach to Bush link to be used it needs to have been integrated effectively with the Petone Interchange with comments relating to:

- How attractive and user friendly the link is may dictate whether people use it.
- Innovation should be used to ensure that the link to BRP is effective and safe.

In relation to the visual impact of the proposal, several submitters made comments outlining that careful design would need to be undertaken to mitigate visual impacts and to preserve the green backdrop the countryside currently provides.

Hutt City Council commented that the area around the interchange is a 'main entrance route' to the city identified within the district plan. It was reiterated that they would like to have involvement in the design of this area.

6.2.16 Climate Change

Climate change and the role that this should have for the decision making concerning the P2G Link Road was discussed by many submitters. The main points are summarised below and representative quotes can be found in Appendix A, section 13.35. Common responses related to:

- The effects of climate change needing to be taken into consideration.
- Needing to preserve the planet.
- Action needing to be taken to limit CO^2 emissions and global warming.
- Road transport is a significant source of emissions.
- We should be encouraging less use of vehicles not increasing usage further.

A few submitters stated that an effect could be lower CO^2 emissions from cars being able to take a shorter route.

Several submitters, particularly from Takapu Valley outlined the need for rural areas near cities as potential key sources of agricultural produce in the future.

Some submitters outlined that although climate factors are important providing routes are also important with more environmentally friendly technologies being developed that will be able to use them.

7 Other feedback

This section outlines those comments received that did not specifically relate to the P2G project.

7.1 Cross Valley Link

The main points are summarised below and representative quotes can be found in Appendix A, section 13.36.

The Cross Valley Link (CVL), a potential roading project that provides a link from Seaview over to SH2 was highlighted by many submitters. Responses generally focussed on the need for the CVL for the full benefits of the P2G Link Road to be realised, and for the impacts on the Esplanade and Petone suburban roading network to be minimised. Common responses related to:

- The urgent need for the CVL.
- A CVL being a priority.

However, a few submitters outlined that with the new proposed full interchange at Petone the need for the CVL is not as crucial.

Some submitters also referred to the Western Corridor Hearing sub- committee which noted that the western corridor needs to be sequenced to ensure that it builds onto an operational cross valley connector to avoid negative traffic impact on other roads. The 2010 Triangle Strategic Study which outlined that 'The building of the Cross Valley Link in conjunction with the Petone to Grenada Link Road would significantly improve Seaview -Gracefield's connectivity to those areas served by SH1 such as northern Wellington, Tawa, Porirua and the lower North Island and as such should be prioritised as well.

7.2 The Esplanade

Many submitters noted the effect that the P2G Link Road could have on The Esplanade and the local roading network in Petone generally. Many also highlighted the need for a CVL as outlined above. The main points are summarised below and representative quotes can be found in Appendix A, section 13.37.

Common responses relating to The Esplanade related to:

- Negative impacts of an extra 10,000 vehicles per day on the Esplanade.
- Increased barrier to accessing the foreshore.
- Increased maintenance costs for HCC.
- The need for more information regarding these impacts.
- The Esplanade not being able to handle the increased traffic levels.

Many submitters gave suggestions with regards to impacts on The Esplanade relating to:

- Crossings/footbridges over The Esplanade should be considered.
- Improvements to the Esplanade or the establishment of a CVL needs to occur before the P2G Link Road is constructed.

Other comments outlined that an improved intersection at Petone could make traffic flow better on the Esplanade during peak times.

7.3 Public Transport Investment

Public Transport investment was discussed by many submitters, although not specifically consulted upon. The main points are summarised below and representative quotes can be found in Appendix A, section 13.38.

Comments about the role of NZTA in public transport development and the decisions around this were put forward by submitters with common responses relating to:

- NZTA being a multi-modal transport agency should be looking at a range of transport solutions including walking and cycling.
- Consideration of the project alongside other public transport investment occurring in the area.
- That it is not desirable remove all congestion as it creates pressure to use more public transport.
- Increasing/upgrading public transport in Wellington should be given priority.
- Rail being more efficient and cost effective.
- Providing additional north-south capacity may effectively undermine efforts to get people to use public transport in peak times.

Many submitters made comments concerning rail development, although again, these were not specifically consulted upon. Common responses relating to:

- With rising fuel costs in the future rail will become a more attractive option.
- A light rail network for wellington should be considered.
- Park and ride facilities and train stations should be improved/increased.
- There are increases in the amount of freight being carried by rail.
- Bus and rail investment would deliver more results than P2G.
- More investment in public transport would further increase patronage.
- P2G may undermine the considerable investment that has been made in rail travel recently.

Many people outlined that they considered that there needs to be greater transparency as to how the plans for P2G Link Road fitted in with Greater Wellington Regional Council's public transport plans for Wellington.

7.4 SH2

Many of the submissions relating to SH2 focussed on improved connections and interchanges, such as those addressed in the specific sections regarding the Horokiwi Connection or Petone Interchange sections of this report. The main points are summarised below and representative quotes can be found in Appendix A, section 13.39.

Also of note, several submitters commented on the benefits of straightening of SH2, such as the removal of the kink under the Petone Interchange.

Several submitters also outlined that improvements to SH2 should be developed as a priority such as adding another lane from Ngauranga to as far as Maungaraki and the removal of traffic lights on SH2. It was also put forward that the hold ups on SH2 will continue whilst SH2 only has limited width.

Significant reference to SH2 was made in conjunction with comments about SH58, and can be found in that specific section of this report.

7.5 State Highway 58

A large number of submitters commented on SH58, although this was not a topic specifically consulted upon. The main points are summarised below and representative quotes can be found in Appendix A, section 13.40.

Common comments relating to SH58 being a priority for investment related to:

- Being the better use for state highway investment.
- SH58 improvements going ahead as an alternative.
- Upgrading to a motorway standard.
- Widening SH58 to 4 lanes and providing a full interchange at Haywards/SH2 intersection.

Many submitters outlined that they thought SH58 should be the main route of resilience. Comments relating to the resilience of SH58 in the context of this project related to:

- Volume of SH58 increasing on completion of TG.
- SH58 being more resilient to earthquakes, and further from fault lines in comparison to P2G.

Many submitters also commented on SH58 being a more direct route. Common responses related to:

- SH58 being more direct northbound route for much of the Hutt Valley.
- That SH58 is a more appropriate route from Porirua to the Hutt.
- SH58 provides better access to Upper Hutt as well as Lower Hutt.
- Everywhere north of Petone will use SH58 over P2G.

Many submissions also highlighted the unsafe nature of SH58 at present. It was outlined that improvements needed to occur before the opening of TG when traffic on the route will greatly increase. Other responses related to:

- Not improving SH58 will result in more deaths and serious injuries.
- It is a known blackspot.
- For safety alone upgrading Sh58 should be a priority.
- Not widening SH1 North of Grenada might cause delays due to an increase in future traffic volume in a few decades time. Not improving SH58 will result in more deaths and serious injuries.

Several submitters commented on the need for improving the intersection between SH2 and SH58.

Several submissions commented on comparative cost of the P2G Link Road with upgrading SH58 and that this is likely to be far less. Several submitters suggested that money saved from not implementing Options C or D could easily cover the costs of these upgrades.

Many submitters also commented on comparative gradients and distances between the P2G route and SH2/SH58 route with many outlining that a SH2/SH58 route north has a less steep gradient than that of P2G/ TG.

Several submitters asked that additional research to be undertaken regarding the use of SH2/SH58 as an alternative to undertaking Options C or D.

8 Process Issues

Several people made comments concerning process issues. This concerned objective definition, option evaluation process and consultation process.

Comments concerning scope change related to:

- There have been numerous studies relating to P2G, most recently WCC Northern Growth Management Plan which set out a corridor for P2G Link Road. The scope now seems to have grown beyond what should have been the principal objective. That is to address the provision of an alternative route between Petone and Grenada linking with the developments now in the process of being implemented.
- Objectives for the Proposed Petone to Grenada Link Road (P2G) are vague to the point of irrelevance.

Many submitters considered that having an Either/Or consultation made it unfair as people would choose the other option to protect their personal interests with comments such as:

- Options C and D were presented as binary alternatives.
- The community has been played off against each other and proper discussion and consideration does not happen in these circumstances

As alluded to throughout this report, several submitters considered that the option evaluation which informed the preferred options to be taken to consultation had flaws. Many also considered that key impacts such as the social impacts of the options were omitted from the evaluation. It was also suggested that the assessment added weight to specific variables or options.

Timing of the consultation:
Many submitters signalled concern over the speed at which the consultation was run and the period over which an option would be chosen with comments such as:

- The costs to this community are enormous and saying this decision will be made in mid-2014 is totally unreasonable given the very recent announcement of the plans
- Tight time constraint for this submission has not allowed residents to do the necessary research to either confirm or dispute the forecast traffic growth on which the need for the Takapu Motorway is based.
- Major transport infrastructure of this magnitude needs extensive community, local council and iwi engagement and consultation. This is why we have a District Plan for the Wellington Region with the associated community consultation processes, where all parties are included and have time to process the information and work with affected groups on impacts and resolutions.

Several submitters outlined that they considered the consultation to be a predetermined outcome with comments such as:

- We have been given the impression that the outcome of the process is already decided, therefore the consultation is not genuine, and it is inevitable that one of the two options (C or D) would eventually be chosen regardless of community feedback.

9 Property Issues

A number of submissions comment on a range of property issues across the entire P2G Link Road alignment. The most common themes are general impact, physical effects and value. The other themes are access, the purchase process and future land use.

Key property issues were:

- Impact on the properties throughout the project extent.
- General impact on property from the alignment and environmental effects associated with the Expressway.
- The impact on the value of properties that the P2G Link Road will have on nearby properties.

10 Pro – forma submission summaries

In total there were four pro-forma type submissions received. All of these involved a series of 'check boxes'. A summary of the findings of each are provided below. Where submitters had attached text to these forms this information was included in the processing above.

10.1 Pro-forma Form 1

A copy of pro-forma submission Form 1 can be found in Appendix E. 621 of this type of pro-forma were received. Effects on community and environment were the most commonly 'ticked' boxes. Air quality and heritage effects were the least 'ticked' with approximately half of the respondents signalling these as issues for the project.

10.2 Pro-forma Form 2

A copy of pro-forma submission Form 2 can be found in Appendix F. It relates primarily to Option C. 41 of this type of pro-forma were received. The highest 'ticked' boxes correlated to those of:

- Increased noise for residents and schools
- Lack of justification to widen that part of the motorway
- Safety concerns for students and residents

The lowest 'ticked' boxes correlated to those for:

- Loss of neighbours
- Can't sell my house while this is going on
- Stress and anxiety

10.3 Pro-forma Form 3

Pro-forma submission Form 3 relates primarily to Option C. Pro-forma submission Form 3 was similar to the previous one above, however a few of the tick boxes had been altered. A copy of pro-forma submission Form 3 can be found in Appendix G. 24 of this type of pro-forma were received. The predominant ticked boxes were "loss of classrooms effect on students" and "motorway closer to houses and schools".

10.4 Pro-forma Form 4

Pro-forma submission Form 4 was similar to the previous one above, however a few of the tick boxes had been altered. A copy of pro-forma submission Form 4 can be found in Appendix H. 249 of this type of pro-forma were received. This form had a spiel about the project and was then followed by a series of 'tick boxes' relating to support for Options C or D.

11 Submissions from Key Stakeholders

These submissions are included in the earlier analysis and are discussed in more detail below to recognise that these organisations are also key stakeholders for the project.

11.1 Submissions from Regulatory Authorities

11.1.1 Greater Wellington Regional Council

GWRC supports in principle an additional east – west link (P2G). They do not support the additional north-south capacity proposed through widening SH1 north of Tawa (Option C) or through two lane connection through Takapu Valley (Option D). The reasons for not supporting these options are;

- This could undermine efforts to get people to use public transport during peak times.
- Investigations should be undertaken to look at other options for addressing this issue as part of a wider approach to maintaining a balanced transport network.
- They have undertaken modelling which suggests that congestion on this area will not be an issue. They seek further evidence concerning the need for 6 lanes in areas of P2G alignment.

Their comments around Option 1-4 and the Belmont Regional Park were as follows;

- They support Option 4 and consider Options 2 and 3 would have an unacceptable impact on Belmont Regional Park.
- They would most likely oppose any location of excess fill in the Korokoro Stream catchment.
- They view the interchange works as a way through which access to the BRP could be enhanced.

Their comments on Option C and D were as follows;

- Do not support Options C or D.
- They specifically do not support for Option D because;
    - The large footprint that will be created through an unspoilt area.
    - Compromising of access to BRP on the Western side of the Belmont Hills.
    - The potential undermining of investment in SH1 and TG interchange at Linden
    - The negative impact on Grenada North Park

GWRC would like to see that the project minimise impacts on existing residential properties as far as possible. GWRC emphasise that good access to Lincolnshire Farms should be provided.

They are in strong support of the upgrade of the Petone Interchange and would like to see that safety for all modes (including cycling) is considered. They feel that not providing for cyclists on the Link Road would be a missed opportunity. GWRC supports rail realignment around Petone interchange.

GWRC considers improving SH58 should be a priority in the short term. They consider that full benefits of the Link Road will only be realised if the Cross Valley Link are progressed, they encourage NZTA to work closely with HCC to facilitate this.

11.1.2 Wellington City Council

Wellington City Council (WCC) signalled support for the proposed Link Road, although they are currently not in a position to express a preference of option C or D. The would like the following issues to be considered;

- Alignment with the Lincolnshire Farm Structure plan.
- Improved access to Horokiwi is desirable.

- Access Roads – connection to proposed roads within Lincolnshire Farm Structure Plan need to be considered.
- Grenada North Park – this sporting hub is proposed for redevelopment – consideration needs to be given as to how effects on this park might be minimised / mitigated.
- Belmont Gully – Ecological area that needs consideration.
- Reserve Strip – in relation to WCC owned land next to SH1 – Council likely to be agreeable to this outcome – provided adequate compensation is provided.
- Consideration should be given to walking and cycling.
- How the effects on landscape will be mitigated is of great interest to WCC.
- It is important that decision timeframes are clarified/updated as soon as possible to create more certainty about the project.
- NZTA should take cognisance of community impacts with particular reference to Takapu Valley, Horokiwi Community, Tawa Community, Grenada Village and Developers (such as Russell Properties).

WCC indicated that they are committed to working with NZTA on its development and implementation of the Link Road.

11.1.3 Hutt City Council

Hutt City Council indicated a preference for Option D because it delivers *"better transport options, is cheaper and has the greatest benefits"*. They particularly support the added network resilience provided by Option D.

On the eastern side of the hill they support Option 4. They also would like to see the following;

- They consider a cycle/pedestrian link between BRP and Petone foreshore essential.
- HCC feel consideration should also be given to cycling along the Link Road and suggests that separate cycle alignment should be investigated.
- They think that the Horokiwi area should be connected to the Link Road.
- HCC supports tolling if it enables building the Link Road sooner (timing and duration dependent).
- They outline a number of District Plan / consenting issues that need to be considered. These are;
    - Consideration of the rezoning of the Western end of Petone.
    - The district plan policies and rules relating to the Petone interchange area that is the entrance/gateway to Hutt City. They would like a high level of input into the design of the interchange.
    - The marble wall at the end of Cornish Street that is a heritage item.
- They also promote that careful design of the Road along with particular reference to the mitigation of visual effects from Korokoro and Petone.

11.1.4 Porirua City Council

Porirua City Council is in agreement that resilience on the Wellington road network should be improved and that congestion on SH1 and SH2 should be reduced. Should the need for extra capacity between Porirua and Tawa be confirmed then they will support the upgrade of SH1.

They do have some concerns around the possible bypassing of Porirua with the currently proposed interchange at Transmission Gully for Option D (referred to as the Takapu Interchange). They would like to see this interchange as a full interchange.

They also iterated the need to improve safety on SH58 as an immediate improvement on connectivity between Porirua and Hutt City until such time as the Link Road is constructed.

11.1.5 Upper Hutt City Council

Upper Hutt City feels that the Link Road is not required and that other options will be more cost effective. Their comments and concerns were as follows;

- Consider the proposed Link Road will merely shift the congestion point and will be putting more traffic on The Esplanade.
- SH58 is currently inefficient as it has not been invested as a national significant corridor. They are not in agreement with this and feel that more investigation and safety improvements should go into SH58 than into the Link Road.
- They are of the opinion that the proposal ignores the northward growth of Hutt Valley
- They are of the opinion that the Link Road will open up new greenfield sites that will develop at the expense of existing Industrial areas.
- Sea level rise needs to be considered and they are of the opinion that SH58 upgrading is far better in this respect.
- Consider that the submission form uses a pro-forma approach which signals that a decision to build a road has been made – and that it is just a final route to be influenced.
- Consider that investment in rail, public transport, and walking /cycling infrastructure would all significantly reduce congestion on existing roads.
- Suggests other methods for encouraging use other than private vehicle use e.g. free Wi-Fi in trains, user friendly cycle ways.

11.2 Groups Representing Community Interests

11.2.1 Tawa Community Board

The Tawa Community Board supports the concept of a Link Road between Petone and Grenada. They further concluded;

- They are not convinced that widening SH1 (Option C) or Takapu Link (Option D) are needed at this stage.
- They do not support the Link Road being tolled.
- They oppose the addition of another roundabout at the Tawa Interchange and would prefer that the Link Road joins SH1 via the Churton Park onramp.
- They have concerns about traffic rerouting through Tawa during the construction should Option C be chosen.
- They are concerned that the detrimental impacts on affected residents such as mentally, financially and socially far outweigh the likely benefits.
- Affected property owners should also include those who will be closer to the motorway and have to face increased noise, vibration and air pollution.
- SH2 and SH58 should be the primary route for Hutt Valley Traffic wanting to go north to TG.
- They are concerned about the Public transport impacts and are of the opinion that the Link Road will increase the use of cars.
- They highlighted the impacts on the Grenada North Playing Fields and would like NZTA to consider providing alternative fields prior to these fields being impacted should Option D be chosen.

They would like to be involved in future discussions on the development of the Link Road.

11.2.2 Horokiwi Residents Association

Horokiwi community is very upset about the road bisecting their community. They recognize that the road will go ahead and would like to work closely with the NZTA to mitigate effects.

Regardless of any mitigation provided the cost of the road for the Horokiwi community will be considerably greater than any benefits that may accrue to the community.

Key issues for the community are:

- connectivity and access
- ecological consideration
- water and air quality
- public transport
- noise and light
- resilience, civil defence, communication, emergency services
- other routes
- managing change.

The key points for consideration are:

- The maintenance of the connection between northern and southern Horokiwi with the following key considerations:
    - Create as little disruption to the community as possible, especially the residents that will be close to the bridge crossing.
    - The crossing should accommodate vehicular traffic, livestock and horses, pedestrians and cyclists
    - Access to Horokiwi via both SH2 and P2G with no Horokiwi Rd connection across P2G is unacceptable to the Horokiwi community
- This connectivity is proposed to be achieved by the following options;
    - Tunnelling or cut-and-cover of P2G where it passes under Horokiwi Road;
    - A bridge across the cut.
    - Re-routing Horokiwi Road through 300 Horokiwi Road. This route could offer a point where on-ramps could be installed to give Horokiwi resident's access to P2G. If the Horokiwi community is to be connected directly to P2G then it must be at the closest point possible to where Horokiwi Road passes over P2G
- The provision of some form of connection to SH2 is essential.
- NZTA needs to recognize that silence and darkness are core values for the Horokiwi community, and provide robust and effective plans to address this significant loss of amenity.
- They would like to continue with the consultative process to find the best access solution for their community.
- Horokiwi residents need more detailed information from NZTA about alternative routes than what is currently available on line.
- The P2G route must take into account and protect the buffer zones, reserves and ecological corridors which have been established and worked on by Northern Ward communities, especially Horokiwi, for many years.
- Planning for P2G must take into account the water and air quality issues for the Horokiwi community which is almost totally reliant upon rainwater collection, and acknowledge the impact on existing water catchments for people and animals, both during construction and thereafter.
- Public transport opportunities for Horokiwi are desired.
- Access to Horokiwi needs to address improved resilience, civil defence, communication, and emergency services provision. Thus, the elimination of the detour to Ngauranga is particularly important.

The community state that there will be adverse effects for the Horokiwi community which cannot be mitigated, such as loss of rural amenity values and rural character, loss of community identity, and the impact on people's plans for their properties. Compensation for these adverse effects will need to be discussed.

11.2.3 Petone Community Board

Members of the board are divided, therefore their submission reflects on areas of concern.
They would like to encourage other alternatives that could enhance transportation. These are:

- State Highway 58 upgrades
    - High crash rates
    - Seismically a better option than P2G
    - More people may use SH58 with TG being built
    - SH58 has a better gradient and lower overall rise than P2G
- Reinstating the Seaview railway branch line would have benefits, particularly for freight movement for only a fraction of the price of P2G.
    - They have concerns about global warming and traffic and feel that the Link Road will contribute to this by;
    - The promotion of private car use and reduce PT usage.
    - Shortening the route could reduce CO2 emissions, but increased car use could negate this.
    - Long term modelling shows that congestions will return to levels prior to changes.

Their concerns specific to the current Link Road proposal are as follows:

- Potential traffic impacts on the Petone Streets as the Link Road will put more traffic onto Petone local roads, particularly The Esplanade and Hutt Road.
- The Link Road should be aligned with the consideration of a CVL.
- Korokoro resident access to Petone and State Highway 2 appears to have not been addressed.
- Construction mitigation should address;
    - Run off, noise, dust and traffic impacts
    - Visual effects – construction and ongoing
    - Using of excess fill for P2N cycleway would have to undergo an environmental impact assessment

Their concerns about the effects on Belmont Regional Park are as follows:

- Board wants assurance that the BRP will not be permanently disrupted by the Link Road.
- They would like to know if noise modelling has been undertaken from popular walking tracks.
- The Beach to Bush connection is a priority.

Their concerns with Petone Foreshore are as follows:

- Would like assurance that water discharged will not result in quality issues for the harbour.

Their concerns with regard to The Woollen Mill are as follows;

- Remnants of this are just north of the Petone over bridge, and would be affected by P2G. Important that this history is protected as much as possible. If it has to be removed the Board would like to be consulted with.

They would like the Link Road to make provision for public transport;

- Board considers that NZTA should work with GW to ensure PT links are in place from day one.
- Provision for cycling should be included.

They have a number of questions relating to the project;

- How would the Link road increase resilience more than a SH 58 upgrade?
- Who is the Link Road shorter for and who would a SH 58 upgrade be shorter for?
- What impact would the Link Road and associated land development have on the Seaview industrial area?

- Is NZTA considering supporting a reinstatement of the Gracefield Branch line as part of traffic solutions for the region? If not, why not?
- Will the Link Road reduce congestion in the long term or simply shift where congestion occurs?

11.2.4 Grenada Village Association

The Association has long supported the concept of a Link Road between Petone and Grenada, which has benefits and potential advantages for Grenada Village. However, they do not consider either Option C or Option D to be acceptable as presented due to the impact on residential homes. They are aware that alternatives are being worked, and will comment on these when they are made available.

11.3 Submissions from Interested Parties

11.3.1 Heavy Haulage Association

This Association strongly supports a new full interchange option at Petone. The current interchange is a cause of bottlenecks for transport operators. They would like to see a similar interchange as that of the Dowse. A full interchange with clearances of at least 6m (and preferably 6.5m) in height and 11.5m in width will provide for oversize loads. The interchange should also allow for overweight and over dimension loads to access the P2G Link road through to Transmission Gully (and vice versa). At present the main route that is used is through SH58 and there are various restrictions on this route that would be resolved if the Link Road was able to be used as the main oversize route. In general a reasonably direct route is preferred. The proposed gradient of P2G should not be an issue for heavy loads, as there are ways of managing this, especially if there are three lanes provided to allow for traffic to travel at different speeds. They prefer Option D and would like to further see Option D widened to two lanes in each direction. They would support tolling of the Link Road if it means the road is built sooner.

11.3.2 Hutt Valley Chamber of Commerce

The Hutt Chamber of Commerce support the P2G Link Road as it provides the key economic benefits of;

- Removal of vulnerability of SH2 between Korokoro and Ngauranga Corridor.
- Removal of pressure at peak traffic time of SH2.
- Provision of a more direct route between the Hutt and Porirua.
- Open up improved access between key retail sectors.
- Improved efficiency of freight movement.
- This will be a key connector to the Hutt Valley after construction of TG.

They would like to see P2G built along with the Cross Valley link in the Hutt. They support option 4 from Petone to the Crest and they have a preference for Option D for extra capacity North of Tawa. They will also support any initiative that can move the project forward, including Tolling.

11.3.3 Wellington Employers Chamber of Commerce

The Wellington Employers Chamber of Commerce support the Link Road in general, has support for both Option C and D and would like both these option constructed. They are in support of future proofing roading access and improved roading connections. They support the project because of the economic growth and development that it will provide for the Wellington Region. The reduction of travel times and congestion is also a key factor for them.

11.3.4 Korokoro Environmental Group

Korokoro Environmental Group (KEG) is opposed to the proposed construction of the Petone to Grenada Link road. They address Option 4 in their submission as it has been stated as the preferred option, with others discarded (none of the options are preferred or supported by KEG). Their comments were;

- They oppose new road in general as this will contribute to CO2 emissions and Climate change.
- They feel the BCR is a narrow benefit analysis and does not sufficiently weigh the issues of fill and the relatively low time savings.
- They in general query the viability of this transport option and feel that there are other more urgent transport options such as;
    - Strengthening the local rail network.
    - Developing infrastructure and encourage the use of electric powered vehicles
    - Enhancing walking and cycling facilities
    - Other roading projects such as upgrade of SH58 and the Cross Valley Link
- They raise their concerns about local environmental impacts such as;
    - The effects on the Korokoro Stream
    - The impacts of dust pollution
    - The effects on Petone Beach with regard to runoff and pollution
    - The use of fill for P2N and the effects on the foreshore and marine ecosystems
    - Potential effects on the Waiwhetu aquifer.
    - The ecosystems of the BRP.
    - The road will negatively impact on the entrance to Belmont Regional Park.
    - Provision of sufficient mitigation for things such re-vegetation.
    - Concerned about chemical spill from vehicles.
    - The effect of mist on traffic- safety concerns.
    - Rock fall from the steep slopes along the road.
    - Change to the iconic landscape of Wellington.
    - The lack of detail around environmental risk.
- Their concerns on the negative effects on the Petone and Korokoro residents are as follows;
    - Negative effects on amenity values- views and lights.
    - Noise pollution.
    - Reduced access to Korokoro.
- Their concerns with regard to historic values are:
    - Fundamentally change the historic pathway that Maori used to access Porirua.
    - There remain sections of the Petone Woollen Mill built in 1886 (one now used by Contherm Scientific Ltd). In addition the section of historic marble wall on the corner of Western Hutt Road and Cornish St that was built in 1920 of Takaka marble left over from the construction of Parliament House. This wall is listed in the Lower Hutt City District Plan Section 14F p8 Heritage Buildings and Structures. This wall should be retained.
- Their concerns relating to resilience are:
    - Questioning any structure sitting on the fault line along with the steep cuts.
    - The usefulness of the road considering the steepness.

In general the KEG believes that the negative impacts of the proposed Petone to Grenada Link Road outweigh the cost/benefit analysis (CBA) that has been provided as part of the Scoping Report.

11.3.5 Stop the Motorway Widening Group

Stop the Motorway widening group represent approximately 60 Tawa households who will be affected by Option C.

They do not object to the Link Road, They do however object to Option C. Their comments can be summarised as follows;

- They do not want a 6 lane motorway in their backyard.
- Would prefer neither option C nor D to go ahead.
- Should one option go ahead they would prefer option D because;
    - Fewer people would be affected.
    - A likely increase in congestion at the Tawa interchange would be avoided.
    - It will provide an alternative route.
    - There will be fewer disruptions for commuters and residents.
    - Better connectivity for People using Transmission Gully on their way to the Hutt.
- They proposed modified options for Option D to reduce the impact on Takapu residents.
- Reasons for alarm about option C
    - Huge effect with little gain.
    - Low need for a six lane motorway.
    - High level of harm for locals.
    - Effects on Schools.
    - Huge financial losses.
    - Increase anxiety, worry and fear.

12 Key Findings from Engagement

The key findings from the first consultation phase for the Petone to Grenada Link road are:

1) There appears to be a preference for Option 4 alignment at Petone as this minimises adverse ecological and visual impacts.

2) Preference to connect P2G Link Road with Horokiwi at a location to be determined. Further consideration for the potential to retain the SH2 connection is urged. The feedback has identified several issues regarding the use and location of the access that can be considered further by the project team.

3) While there is no clear preference for Option C or Option D, the feedback has uncovered a number of issues that need to be considered in more detail by the project team and specialists. This will enable the project team to refine the alignment of the options to minimise adverse effects and to update the assessment of effects. This further work would enable a more robust comparison to be made between Options C and D, further consideration of the impact of P2G on the operation of SH1 north of Tawa, and potential methods to mitigate this.

13 Appendix A Representative quotes from submissions

13.1 General comments on submissions (representative quotes)

Support

- It makes the journey between the Hutt Valley and Porirua faster and shorter.
- It will provide another route between SHI and the Hutt Valley.
- It will improve traffic flow.
- Makes travel times on SH1 and SH2 more reliable.
- Opens up future residential or business growth opportunities by making Porirua, Wellington and the Hutt Valley better connected.
- P2G and Transmission Gully will improve traffic flow and will be a blessing in emergency situations.
- P2G is an essential addition to the region's roading network.
- This link is vital to both Petone and Porirua/Tawa/Grenada regions. The priority for completion needs to be changed to urgent.

Opposition

- Impact of the Link Road on The Esplanade, with traffic along this route increasing drastically.
- Spending huge amounts of money to fix a problem that only exists at peak times is a waste of money.
- P2G is just aiming to create a rat run to avoid congestion.
- Effectively splits Horokiwi community in two.
- We do not support a new roading development between Grenada and Petone. SH 58 is the appropriate option for people wishing to drive between Porirua City and the Hutt and this needs to be improved.

Many submitters put forward issues that they had with the project such as:

- The problem the Link Road will address needs to be more clearly defined and alternative strategies more clearly considered.
- Issues with the assessments and option evaluations that had been undertaken.
- The process of consultation was criticised.
- The speed of the decision making was questioned.

13.2 Petone to the Crest of the Wellington Escarpment (representative quotes)

- I like your preferred Option 4.
- Option 4 seems satisfactory.
- The route passes through mostly farmland so does not affect many people's homes.
- Options 1 and 4 are the most environmentally friendly, other options impact on the Korokoro Stream.
- Out of the options presented Option 4 is the least damaging.
- Support option 4 provided there is adequate provision for freight vehicles (through crawler lanes).
- Avoids traversing the quarry, contaminated sites and Belmont Regional Park (BRP)
- Less likely to be impacted on by earthquakes when compared with Option 1.
- Option 2 and 3 should never have been considered as they cross into BRP.
- You have done a good job to propose such an option avoiding BRP and minimising the visual impact from Petone.
- The BRP is an important recreational area.
- It is the best option given the terrain and the need to avoid BRP.

- Option 4 avoids the BRP and is further from the residential areas at Korokoro in comparison to Options 2 and 3.
- There will be no benefit to me as there will be a 6 lane highway in my view.
- There are no benefits to this option.
- It is still considered to be close enough that Option 4 will have an impact on BRP.
- All options will scar the landscape, with none of the options being satisfactory, esp. with deep cuts.
- We feel a direct Petone to Transmission Gully via Korokoro Stream option has more merit.
- The route passes through mostly farmland limiting the impact.
- Whichever option minimises traffic disruption during construction would be best
- Options for including cycling/walking along the route should be investigated and included since the gradient does not deter cyclists
- Any lighting should be downturned so as to not impact on the night sky.
- Concerned about noise impacts on Korokoro and Petone.
- It is desirable that excessively steep gradients in roads are avoided where possible.
- Would like to see the fill used to widen SH2 between Petone and Ngauranga.
- Reinstatement of the bush around the road will be fundamental.
- Benefits of opening up more land for development.
- Banning heavy vehicles from the route could mean savings through it not having to be 6 lanes
- Would like the original route to be returned to - the one that was consulted on in 2009.
- Realise that Option 4 was only developed very late in the process and are concerned to ensure this is a feasible option, as the other options seem so poor.

13.3 Need for Options C and D (representative quotes)

- Object to either option due to the availability of better options and the lack of evidence of need for either option.
- There is not sufficient demand to warrant the widening of SH1 (and therefore no need for Option D either).
- On completion of TG there will be a huge increase in traffic using SH58 – this will mean a reduction on P2G traffic and negate the need for Widening SH1 (Option C) or the Takapu Option).
- The need for widening SH1 or the Takapu Valley options should be assessed once the P2G Link Road has been operating.
- Options C and are not required at all – the need for them is based on questionable traffic modelling used and stable traffic volumes (despite increasing population).
- The effects of either Option on the communities are too great.
- The process of Option evaluation used was flawed.

13.4 Excess Fill (representative quotes)

General

- OK, great etc. (with no reference to a specific use for fill).
- Leave it where it is (the fill – i.e. the project should not go ahead).
- Creation of so much fill is potentially a reason for not proceeding.
- Will have an impact on sedimentation and runoff that enters the Korokoro Stream and ultimately the Petone foreshore.
- Horokiwi Road must not be used for transporting the excess fill away.
- If you didn't build a road with such large cuts you wouldn't have a problem.

Supportive of cycleway

- Use of excess fill at a close location will reduce the cost of a cycleway.
- Support the use of fill for reclamations for cycleway.
- Good solution.
- It would be great as it would make the cycleway much more affordable.
    - There will be great recreational (including triathlons, marathons races etc.), commuting and possibly tourism options.
    - Would be much more enjoyable to cycle next to the harbour than the highway.
- Use for the cycleway is a great idea.
- Support the use of fill for walking and cycling tracks between Wellington and the Hutt.

Concerns

- A major issue is timing – the cycleway needs to be done now, and construction (excavation) of P2G would not start until 2019.
- Potential consenting issues of reclaiming so much of the harbour.
- There would a significant disruption (to SH2 traffic and the railway) for an extended period of time if the spoil was used for reclamation between Wellington and Petone, as the material would have to cross SH2 and the railway line.
- The Harbour is very deep in the vicinity of Horokiwi Road.
- The environmental impact of such a reclamation would have to be considered, in conjunction with iwi input.

On route

- To minimise the volume of the cut into the hill, improve safety and amenity and possibly reduce its gradient, consideration could be given to providing a cycleway on a separate alignment to the road.

Opposition

- The less reclamation we can do to the harbour the better, we should minimise any use of fill being placed along the Hutt Road.
- Do not like the idea of filling in yet more of the harbour.
- We are cynical about the use of excess spoil on the cycleway to justify the P2G Link Road.
- Impact on the environment has not been quantified.
- Ecological impact would be very costly and unacceptable.

Use for airport extension

- Use of the material to extend the Wellington Airport would be a good use.
- Ideal for use for extending the airport.
- The timing for use in the Airport extension could be perfect.
- Potentially an afterthought by the project team to fend off criticism about the excessive excavation required for P2G.

Gullies

- Could be used to fill in gullies on the way to Tawa.
- Filling up gullies on Lincolnshire farm result in loss of shelter for stock and people in an environment where it is not uncommon to have 100+kmph winds.
- Concern about the effect on streams if the gullies are filled up.
- If gullies are filled then any regenerating forests will be put back 30 years, and there will be issues with weeds.
- Bartlett Road Bush reserve needs to be preserved – can't be filled.
- Fill should be used for the Lincolnshire Farms development.

SH2 / Railway

- Widening and straightening of SH2 would be great.
- Support in widening of the transport corridor between Wellington and the Hutt.
- Should also allow for the protection and potential relocation (and/or widening) of SH2 and the railway.
- Use in reclamation for a cycleway could also provide an opportunity for creating an enhanced sea wall for protecting the railway and SH2.
- Enhance the seaward protection of the railway corridor and SH2.

Other uses

- The fill could be used to create a flyover from SH2 to Horokiwi (improved access)
    - Several submitters requested that this option be investigated and evaluated.
- It could be used on the Rimutaka Hill Road (further straightening).
- Excess soil could be used to mitigate any noise effects of the road through providing noise bunds.

13.5 Horokiwi Connection (representative quotes)

Common responses:

- Access to the P2G Link Road should be as close as possible to where Horokiwi Road will be intersected.
- Connection at Mark Avenue would be unacceptable.
- SH2 access should be open for quarry access.
- Improved access is a way in which the impact of the Link Road on the Horokiwi community can be lessened.
- Petone is the main centre Horokiwi residents use therefore convenient access to Petone is important.
- There needs to be a bridge to link north and south Horokiwi.
- Whatever option is chosen the need for travelling to Ngauranga needs to be eliminated.
- The bridge that is proposed to provide carriage of Horokiwi Road traffic across the cut which contains the P2G road needs to accommodate two lanes of traffic (one in each direction) and a separate (separated) lane for pedestrians, cyclists, stock and children on horses. The length of this bridge (200 metres) makes it unsafe to mix stock, horses, pedestrians and cyclists with vehicular traffic.

Existing Horokiwi connection

- Current SH2 connection must remain as Quarry trucks can't go up Horokiwi (HK) road.
- Provision of some sort of connection from HK Road to SH2 is considered essential.
- Current SH2 is adequate and don't need to do anything else.
- Consider that the existing SH2 connection is adequate.
- The SH2 connection should remain the only access point so as to protect the rural character of Horokiwi and to lessen development.
- Having a SH2 route would have a non-tolled access option for residents, family, visitors, customers, tradesmen etc. coming to Horokiwi (if tolling on the P2G Link was implemented).
- Leave the access as is.
- With the construction of P2G and the re-alignment of State Highway 2 and the railway at Petone, there is a very viable opportunity to provide Horokiwi residents and Horokiwi Quarries Ltd with a safe exclusive access to their suburb.
- Current configuration with SH2 is a death trap.
- No need to retain SH2 connection if a connection to P2G is made.
- The current configuration is problematic and adds to traffic problems of SH2.
- Emergency services access – would be an issue if SH2 access is closed (this is already an issue with the closing of the median barrier)

- SH2 access needs to be moved much further south for safety reasons
- The elimination of the detour to Ngauranga which affects the time it takes emergency services to get to Horokiwi is particularly important.
- Over the last 26 years transport access to Horokiwi has been slowly eroded. Initially, buses would stop at the bottom of the hill on their way north allowing workers to be picked up easily, then the right-hand turn out of Horokiwi was removed, and finally the gap closed altogether.

P2G connection

- An additional connection to the Link Road would give Horokiwi residents an alternative route into and out of their community.
- Avoiding SH2 is desirable as this is frequently blocked.
- A connection to the Link Road will be safe, so no need to retain the SH2 access.
- Access to the Link Road needs to be via a full interchange, or at the very least ramps so that Horokiwi residents can access Petone easily.
- Access to the Link Road needs to be as close as possible to where the Link Road would bisect Horokiwi Road.
- Connection should be via the new Link Road, and the existing road connection to SH2 closed to improve safety.
- A full interchange with the Link Road is required otherwise Horokiwi will get all the disadvantages and none of the benefits.
- It makes sense that there is a connection to the Link Road as Horokiwi Road crosses it
- Access should be via the Link Road to reduce connections on SH2.
- If the only Horokiwi access was via the Link road then those that live at the bottom of Horokiwi Road would be severely disadvantaged if they had to travel to Mark Avenue to get onto it.
- Connection at Mark Avenue would be unacceptable.
- If access to Horokiwi is only via a P2G Link Road connection then any tolls on the road would be very problematic for residents.
- Horokiwi needs to be connected by a bridge otherwise it cuts the community in two.
- Any connection to the Link Road must be via an interchange – i.e. not incorporating stop signs like at Melling.

Support Both SH2 and P2G connection

- The existing SH2 connection should remain and there should be a connection at the top to P2G road.
- Additional link to the Link Road would give Horokiwi residents an alternative route into and out of their suburb. Desirable due to how often SH2 is blocked.
- Access to Horokiwi is not very good, so as many access ways as possible would be good
- Having access at both ends of Horokiwi (i.e. both SH2 and P2G) would go some ways towards compensating for the devaluation of property with the Link Road bisecting it. Would also benefit the community in terms of getting on and off the hill.
- Having both will aid the resilience of the entire community – for instance if one route is closed by natural disaster.

Oppose Both SH2 and P2G connection

- For security reasons there should be only one access point into Horokiwi.
- Horokiwi should only have one access point in and out, so as to minimise any thefts and/or vandalism (which could be the case if it became a 'through road

Alternative connection

- Provision of a full interchange at the bottom of Horokiwi Road is long overdue.

- Would like to see the loop to Ngauranga eliminated, and options put forward by the Horokiwi Community and in particular the Quarry (who have offered to contribute to the cost).

Tunnel Option under Horokiwi

- Have we seen real work by NZTA on the option of tunnelling through Horokiwi hill.
- There seems to be no mention of tunnels under the hills, rather than steep roads over them.
- Tunnelling or cut-and-cover of P2G where it passes under Horokiwi Road should be considered.
- where it is proposed to cut out to an approximate depth of 85 meters and provide a bridge connecting the 2 sides Horokiwi Road we believe it should be changed to a cover and fill option similar to the section of road outside the Carillion in Wellington city
- Installation of a tunnel to mitigate adverse impacts on the Horokiwi community. The area where the greatest adverse amenity value impacts on the Horokiwi community is where P2G and Horokiwi road cross.

13.6 Interchanges (representative quotes)

Petone Interchange

- Urgent changes required as current Petone Interchange is dangerous.
- That there should be no traffic lights.
- It will be good to upgrade the interchange to improve traffic flow and reduce congestion.
- Current configuration is confusing with no north east facing ramps.
- If it looks and works like Dowse interchange that would be good.
- The straightening of SH2 that the interchange will bring will be good.
- Upgrade of this intersection should occur regardless of whether or not P2G Link Road goes ahead, for traffic flows, safety and resilience.
- Proposed interchange would be way better than what is currently there.
- This would encourage commercial development in the Seaview/Gracefield area.

Concerns

- Access impact for Korokoro residents – access from SH2 lost through access to Priests Avenue being removed
    - Means that the hill side traffic would also have to get off at Petone adding future vehicles to the intersection.
- Detrimental to the local industrial area, through loss of area and access – consider adjusting to reduce this impact.
- Access and parking at BRP still needs to be included in interchange design.
- Impact on the parking for the train station is undesirable.
- The impact on local traffic congestion, particularly along Hutt Road and The Esplanade needs to be further investigated – particularly with the roundabout as Interchange traffic would have priority over local traffic coming down Hutt Road.
- The environmental impacts on the BRP (traffic noise, fumes and visual impacts) need to be taken into consideration.
- A roundabout raised intersection will not be safe for pedestrians and cyclists.
- Encourages more trucks and vehicles onto The Esplanade.
- The construction of the interchange could cause considerable delays.
- Impacts on heritage in the area – Woollen Mill built in 1886 and a section of historic marble wall on the corner of Western Hutt Road and Cornish Street which was built in 1920.

- Concerns about similar design to Dowse Interchange – viewed as not being friendly to cyclists or pedestrians.

Further suggestions

- Connecting Horokiwi to the interchange via a slip road (i.e. to take both north and southbound Horokiwi traffic).
- The on and off ramps from /to SH2 need to be two lanes
- Thought should be given to extending the dedicated bus lanes on The Esplanade to the interchange – maximising bus priority meaning more people would use them.
- The CVL needs to happen to get the best outcomes / benefits
- Provision for a pull off area coming down the hill (i.e. a failsafe area trucks can pull into at the bottom of the hill before reaching the interchange).

Tawa Interchange

Tawa Access

- Tawa residents would encounter huge delays trying to enter this system.
- Congestion will occur with vehicles not being able leave Tawa due to traffic coming off the P2G Link Road and going through the roundabouts to go north on SH1 – these will have priority over local traffic coming from Tawa.
- Residents leaving Tawa would have to give way to traffic turning right in front of them to join the northbound motorway on-ramp; the second point of concern is for residents returning to Tawa who would again have to give way to traffic on the roundabout, although there is effectively a left hand turning lane, but already we experience build up at peak times.

Takapu Access

- Puts unnecessary stress on the existing Tawa Interchange, and will make exiting from Takapu Road impossible during the morning peak period.
- There will be 1,000 to 2,000 cars going past the Takapu Road intersection (coming off SH1 to access the Link Road) – this will limit the ability of traffic from Takapu Valley, Rosaveel Estate and the Grenada North Transport hub to travel either north or south.
- Point of concern is for those residents who access the motorway via Takapu Road - including the Woodman Drive/Bing Lucas.

General

- Option C would send significant traffic through the existing roundabouts.
- Concern that an at-grade roundabout system is proposed to handle a large traffic volume.
- Proposed roundabout interchange configuration at Tawa would be unworkable.
- Both options threaten to bring further congestion to the Tawa Interchange.
- Numerous proposed roundabouts will at best impede the exit from Tawa, both western and eastern sides, onto SH1.
- Create considerable traffic jams on the Tawa interchange exits that will tail well back onto SH1 as people slow down for the roundabouts (we are looking at 1,500 + extra vehicles per hour using these exits at peak periods.)
- Options C and D offer a complex new interchange at Tawa, in which slower-moving local traffic is expected to cross and merge at a junction where two high-speed motorways intersect.
- Concern that both Options C and D will block all exits from the valley in the morning peak period for both Valley residents, and all truck traffic from Grenada North. The volume of traffic exiting SH1 going south and onto the P2G Link Road via roundabouts with these two options will stop almost anyone from being able to cross to get onto SH1 and travel into Wellington. At the end of the day a similar problem will occur trying to

get off SH1 at Tawa coming from the city and fighting with the P2G traffic trying to get around the tiny roundabout as they try to get onto the SH1 north bound on ramp.

Comparative impact

- Option D would channel some of the traffic flow from P2G away from the Tawa Interchange lessening congestion issues here.
- Option C will cause more congestion at the modified interchange than Option D.

Existing Tawa Interchange

- Current interchange is in need of urgent improvement as it is very dangerous.
- The present roundabouts are difficult, and to add further cross flow will increase accident potential and congestion.
- Access to/from Tawa and Takapu Road is currently very confusing.
- There is pressure from the existing and developing big-box retailing around the Tawa Countdown.
- At peak times there are now delays at the Tawa SH1 exit because of the creation of the recently installed roundabout/s.
- The present Takapu Road SH1 interchange intersection on the eastern side where Takapu Road joins the loop is dangerous and accident prone.

Suggestions

- That the Tawa Interchange is significant enough that it could be addressed as a separate project.
- A flyover (full motorway interchange) is the only answer.
- If there is no direct connection between P2G and SH1 then NZTA lose the benefits of Link Road as there will be conflicting traffic flows and congestion at this connection and will have a significant regional bottleneck.
- A much more complex reworking of the Tawa / SH1 / TG (Option D) / Link Road interchange should be undertaken.
- In the event that the southern end of Takapu Road becomes the exit point from the proposed Link Road, significant traffic engineering will be required to ensure current issues are addressed and traffic flows are seamless.

13.7 Local Road Connections (representative quotes)

Korokoro

- It appears that little thought has been given to the impact of reduced access from SH2 for Korokoro residents if the current proposal for the Link Road proceeds.
- Losing the Priests Avenue access seemed to be viewed as not a big deal by the NZTA representatives.
- Priests Avenue access is not just used by the hill community (Korokoro, Maungauraki, Normandale etc.) but also people coming from the south to get to the park and ride areas of Petone Station.
- Losing Priests Avenue access would also mean that the hillside traffic would have to divert towards Petone and then come back over the railway line.
- Access to SH2 for Korokoro people may well be compromised. We already suffer from NZTA's transport planning that takes insufficient account of the needs of local communities.
- Residents have at least had access from the south and to the north via Priests Ave. The proposed route closes that option, forcing Korokoro traffic onto the old Hutt Road or back over through Maungaraki to the Dowse Interchange.

- It is essential that Korokoro retains its entrance off SH2 and access to the north from SH2.

Past changes

- As a result of the Dowse Interchange upgrade of SH2 we lost direct, traffic-light controlled access to State Highway 2.
- Since the Korokoro overbridge was built, we no longer have direct access to the highway south, and instead have to join the massive backlog of traffic in Petone- very poor.
- Residents also experience negative changes in our route to Lower Hutt CBD.
- Korokoro has already lost its direct access to the highway. Traffic modelling and promises by those concerned of only an extra 5 minutes to travel time to Wellington were woefully inadequate and made us very wary of 'experts'. It now takes an extra 15 - 20 minutes just to get to the Esplanade roundabout at peak times!
- This has added an additional 20-30 minutes for Korokoro residents accessing the motorway south during peak times.

Commute times

- Korokoro has already lost its direct access to the highway. Traffic modelling and promises by those concerned of only an extra 5 minutes to travel time to Wellington were woefully inadequate and made us very wary of 'experts'. It now takes an extra 15 - 20 minutes just to get to the Esplanade roundabout at peak times!
- This has added an additional 20-30 minutes for Korokoro residents accessing the motorway south during peak times.

Confusing to access

- Our visitors coming from Lower Hutt or from the north on SH2 frequently get lost trying to find their way around the Dowse to Petone area.

Woodridge connection

- Would like to see the Link Road from Woodridge to the proposed new Link Road also included with this plan.
- This will save considerable travel time, usage of petrol and so less pollution for people that live in this area.
- Woodridge neither has good northbound SH1 access nor good connections to the Hutt Valley. This would require an extension of Woodridge Drive through Lincolnshire Farm.

Jamaica Drive

- Consideration could also have been given to the possibility of linking the Mark Avenue roundabout with Jamaica Drive. This would have the benefit of removing some commercial traffic from the Takapu Road intersection with SH1 exit road.

SH2

- The traffic lights at Melling where there are large delays at times.

Cecil Road Access

- Cecil Road runs parallel and adjacent to SH 1. This is the only access route for two dozen or more properties in upper Cecil Road, Mayfair Place, Court Road north, and Carleton Terrace. Properties both to the north and south of this section of road are known to be in line for compulsory purchase and demolition should Option C go ahead. Thus, while it's by no means certain logic tends to suggest that this road will also be affected.
- Certainty about the retention of this access needs to be made.

13.8 Transportation modelling (representative quotes)

- Questioning the sensibility of a large expenditure of money for congestion that covers at most a small portion of the day during the work week.
- Anecdotal evidence suggests that congestion only occurs during the weekday morning "rush hour" peak - 7.00am - 8.30am.

Public transport and existing network

- Generally major projects such as this type should be avoided and the focus should be on adjusting the existing network to get more efficient modal choice and make better use of the existing infrastructure.
- Public transport needs to be factored into the modelling to ensure that the most benefits are gained from P2G Link Road.

Vehicle trends

- NZTA travel time surveys indicate that peak travel times have stabilised.
- NZTA still seem to foresee a quantum leap forward in the number of vehicles and the kilometres they will travel heading into the future.
- NZTA's modelling system is also something of a TUI moment. It seems strange to us that Wellington's traffic flows and vehicle mileage has stayed static or flat-lined for a decade or more as can be seen on NZTA's own website.
- Vehicle kilometres travelled per capita for Wellington is declining, and is already below 2001 levels.
- Vehicle usage is showing a world-wide declining trend, despite increasing population and GDP.
- Traffic volumes on Wellington highways are almost unchanged over 20 years.
- The models used to calculate the traffic produce results that are different from previous calculations and fly in the face of Global data that suggests vehicle volumes are not increasing.
- Traffic volume measurements by NZTA on SH1 Ngauranga Gorge and on SH1 at Tawa College from 2003 to 2012 show that the volume of traffic has been unchanged year by year for 10 years.
- During a period when the petrol prices were hiking up, the number of vehicles on the road took a dive and more people were either car-pooling or increase their use on the public transport system. Does your model plan for petrol prices to fall in the future?

Changes in traffic behaviour

- Insufficient consideration being given to the change in traffic behaviour caused by the interconnection of Transmission Gully (TG) with SH58. These concerns do not lessen the need for the Grenada-Petone Link Road but they do alter the extent of the work proposed and required.

Flaws in traffic modelling

- Traffic modelling tends to over-forecast long term trends, despite evidence showing otherwise.
- The scoping report provides little detail on the traffic modelling, especially the variables that went into the models' underlying assumptions.
- Options C and D are not required at all, based on the questionable traffic modelling used and stable traffic volumes (despite an increasing population).
- We do not believe that the proposed economic growth and movement between Lower Hutt and Porirua will generate the traffic movement that the modelling indicates.
- The computer models that the NZTA use are often very flawed as they are only as good as the information that is fed into them. The rationales for options C and D are often

very, very wrong - to say that the computer models throw these ideas out is not good enough a justification. The computer models are loaded to provide the outcomes to justify decisions.

- Despite level traffic volumes for 10 years - you have them starting to go up from here on in. Both are so unlikely and an obvious bending of what is realistically going to happen and would be laughable if it wasn't playing with people's lives. They make your modelling invalid and would never stand up if put under scrutiny.
- It seems reasonable to us that when looking at road design and planning for traffic capacity peak flow rates should be considered. That is, when the road is under stress. However throughout the Scoping Study the report consistently uses total vehicle per day (vpd) figures. There may be some rough rule of thumb that relates total daily flows to peak flows, but if this is so it is not mentioned. According to international research a 4 lane road can handle at peak around 4,000 vehicles per hour in each direction. Therefore if the flow rate was consistent throughout the day such a road could handle 192,000 vpd, and there would be absolutely no need to widen any road anywhere in the Wellington Region. Patently we have peaks in traffic flows, so the average daily figure is actually meaningless. What is needed is more analysis of the flows at peak times - that is what we should be designing the roads to meet.
- NZTA's prime rationale for both Option C and Option D is to alleviate the increase in traffic volumes predicted by NZTA's traffic modelling. There is however no technical justification for this position in the Scoping Report - no analysis of road capacity, peak flows, comparisons with other roads, vehicle usage trends, and other applicable factors

Remodelling

- Recommend that the project is re-modelled using accurate systems.
- Unfortunately spend more taxpayer money to reinvestigate the preferences and need for either widening SH1 or undertaking the Takapu Valley Option.
- That certainty and transparency of process is followed through this process.
- As with major transport infrastructure of this magnitude there needs to be extensive community, local council and iwi engagement in the process.

Predicted volumes

- As a regular user of SH1 during these times it can be seen that the primary cause of this congestion is the SH1 / SH2 merge at Ngauranga. Traffic turning left onto SH2 (to the Hutt Valley) is largely unaffected. The roading project proposed is unlikely to resolve this congestion.
- The predicted volume of traffic on SH1 does not by NZTA's own modelling, road plans, or comparable roads, require any expansion of the road anyway, so there is no volume problem to solve.
- Land Transport demand planning is going to need to account for a greater variety and risk associated with urban living and working options that we haven't seen in the past. It is likely to result in a reduction in the need for either Option C or D
- There is no clear evidence that the model used to develop the proposal to widen the motorway between Grenada and Linden is robust. Current statistics show that the volumes of traffic we have now will be the volumes of traffic we can expect in the future. By adding another road and moving some traffic along another route will not increase the number of cars travelling between Linden and Grenada to the extent that two more lanes are needed on the existing motorway.
- The traffic analysis is not convincing, and does not prove a case to widen SH1 between Tawa Interchange and Linden, or support the need for Option D to connect to Transmission Gully.

- Once you start seriously considering overall flows with TG and SH58, especially in reference truck movements, there may be no need to make the 9% hill section on P2G six lane, it may only need to be 4-lane, thus providing savings.

Comparison to SH2 and TG (projected) numbers

- That the forecasted vehicle numbers on SH1 through Option C are less than those put forward by the Transmission Gully Project which did not have a requirement for widening.
- The traffic modelling predicting a rise to 57,500 vehicles per day is suspected at best. There are no technical calculations that prove that 57,500 vehicles per day cannot be handled by the current 4 lane road. "SH2 from Petone to Ngauranga already carries 66,000 vehicles per day and there are no plans to widen this road now".

Short term congestion relief.

- Modelling work on roading proposals being considered for the Wellington airport to Levin corridor shows they will only reduce congestion in the short to medium term. In the long-term they will encourage more vehicle movements resulting in congestion returning to levels prior to the proposed changes.

Advancing technologies

- Car sales are breaking records at the moment and electric car technology is reducing the cost per km very rapidly.

13.9 Network Resilience (representative quotes)

Supportive

- At present you are relying on 3 roads, SH1, SH2 and SH58 and when one has a major accident it impacts on the others.
- Access between the Hutt and Kapiti is crucially important because makes Wellington residents less vulnerable to being cut off in a major earthquake and gives another option for the movement of freight.
- Resilience of the present roading network is weak. It is easily blocked by natural or man-made disasters. For this reason the new Link Road to Petone and an upgraded SH58 are both needed.
- The resilience of the existing Petone to Ngauranga corridor must be improved for rail, vehicle and active transport modes.
- An additional road also improves the robustness of the roading network and its ability to enable travel when various disruptive events occur.
- I do support Transmission Gully and the link from Petone to Grenada which will relieve congestion in Ngauranga Gorge and provide alternative routes in emergencies.
- The Transmission Gully and Petone/Grenada link will improve traffic flow and will be a blessing in emergency situations.
- It has one further benefit, which is indirect, but is probably the most important which is that it will help to reduce congestion at the bottom of Ngauranga Gorge. This will benefit all traffic travelling to and from Wellington.
- P2G forms a strategic alternative in the event that SH2 between Ngauranga and Petone becomes unusable. This suggests that the bulk of traffic using the Link Road in these circumstances would emanate from the south when travelling from Wellington

General comments against

- I doubt that the Grenada Road would increase the resilience of Wellington in an earthquake as well as upgrading the Haywards road would, as it is still passing through the bottleneck area with fault, sea, hills, trains and roads altogether).

- Such a steep and cut and fill highway as the proposed Petone to Grenada one would not be likely to survive storm or earthquake induced damage any better than SH1 and SH2.
- We do not believe that any P2G route materially improves resilience for the region.

Options C and D

- Would prefer option "D" over "C" as provides an alternate route north should issue such as earthquake or accident close SH1 or SH2
- I think if the widening of the motorway option was to happen it would be far less beneficial than having a completely different road that could be utilised in case of an emergency. If there was a major incident the motorway would still be gridlocked if it was wider, a different route altogether makes far more sense.
- Option D would provide far better resilience in the event of crashes, roadworks or other events affecting roads
- Option D is the obvious choice. The more roads (and choices) the better particularly with regards a major natural event or serious crash.
- Option D will give a separate route which will be helpful in times of accident on SH1 blocking that road or if earthquake disrupts one or other road.
- Option D will provide the Wellington Motorway System with greater flexibility and diversity. It provides an alternative route into Wellington which may prove crucial during a natural disaster.
- I think the more access roads to the city the better, therefore I like option D.
- I am astounded that option C is a genuine proposal. If one of the main outcomes of this new roading system is to make Wellington more robust after an Earthquake then it is a no brainer. Option D gives us an alternative.
- The motorway widening will not increase the resilience of Wellington in an earthquake as it will not provide an alternative route.
- Option C does not provide more travel options or reduce risk of closure/ blockage through vehicle accident etc. Option D is clearly the better choice.

Limited resilience of Option D

- Option D does not provide connectivity between the Hutt Valley and Porirua, but instead bypasses Porirua and only provides a connection from Petone straight to (the future) Transmission Gully near Cannons Creek to continue north.
- In my opinion Option D presents very little benefits over Option C, if any. It seems there will only be very minor additional resilience gained for the SH network through Option D. An additional highway, running in parallel with the existing one, traveling to the same location, for such a short distance, is very unlikely to be any more resilience to natural disaster events that may threaten access to Wellington city.
- Option D - As a presumed "benefit" of Option D, the specialist says that "This route provides a complete bypass" of parts of SH1 and Transmission Gully - except that the one-way ramps at the TG interchange do not actually allow this.

Not considering either Option C or D to be resilient and flaws in assessment.

- The resilience study for P2G is fatally flawed. P2G will provide no EQ resilience to the Hutt, and options C and D are the worst options for regional traffic resilience. Options A or B provide network resilience, and SH58 presents a much better option for overall network and earthquake resilience, and work on it needs to commence immediately.
- Neither Option C nor D provide any significant enhanced regional network-resilience for the northern suburbs reliant on SH1. The best traffic (network) resilience is provided by options A and B. The best resilience option for the Hutt is to improve SH58.
- Minor improvements are then compromised by the negative impact of the moderate cuts required by Options C and D (and the potential seismic problems with D), as compared to the "good natural hazard resilience" of the "limited height" cuts and fills of Option A.

If these options were subject to proper objective assessment, then the "improvements" these two options provide to the overall holistic resilience of the Wellington Region would be minor at best; at worst, they could be a liability.

- The resilience specialist is displaying a clear subjective bias toward Option D. The resilience positives of Option D - another redundant road in an area already served by multiple alternate routes - are almost entirely negated by the fact that it cannot actually be used to route around blockage on the parallel stretch of SH1.
- None of the P2G options provide increased earthquake resilience for the Hutt Valley, because all of the roads connect to Petone.

Concerns and suggestions

- Query as to whether any roading structure that sits directly on the Wellington fault line would be able to withstand a significant earthquake, probable liquefaction and a possible tsunami.
- The proposed route cuts up the side of an escarpment sitting on the fault line.
- The sides of the cutting route through which the road will pass will be composed of shattered rock, and its stability will be exacerbated by the size of the cuts and the embankments.
- The objectives of network resilience and improved access to SH1 North would be better met by a cross valley link to Dowse interchange and improvements to SH58 to link with Transmission Gully or the existing SH1.

13.10 Pedestrian and Cycling Facilities (representative quotes)

- That the Takapu road option could also include a suitable cycle way this would provide a very safe and scenic option for cyclists on training rides.
- Any interchanges must also have facilities for cyclists and walkers, unlike the most recently built interchange across SH2 in the Hutt Valley.
- Neither a walking nor cycling opportunities are currently brought into the calculation of the total cost of building this new road but only as an optional add-on – these should be considered from the outset of a project.
- It is essential to ensure physical separation of vehicles and pedestrians/cyclists at the Interchange.
- Dedicated pedestrian and cycling access needs to be incorporated into the planning. This should NOT be a later add on that is perceived as an additional cost, it should be a key feature of any new roading.
- If new roads are to be built, they need to be fully future proofed for a wide range of transport options, as they need to cater for future generations
- Horokiwi residents need access to public transport and cycle access onto the new public road.

Concern around safety factors

- I do not like the twin bridge roundabout intersection option. This is based on my experience of using the Dowse Drive interchange. The Dowse Interchange is very pedestrian unfriendly and seems to be designed for the agile and quick witted only. Pedestrian access has been provided across the interchange on one side only and is poorly considered for anyone pushing a baby stroller or wheel chair.
- The current interchange areas need considerable work to make them suitable for cyclists and pedestrians.
- We are concerned the design will be as poor as the pedestrian access across the Dowse Interchange, which we think is dangerous.
- Interchanges cannot be designed for cars only. Cyclists MUST be provided for in all future roading interchanges.

Cycling along the route:

- To minimise the volume of the cut into the hill, improve safety and amenity and possibly reduce its gradient, consideration could be given to providing a cycleway on a separate alignment to the road.
- Given that there are large cuts and fills an elevated path be provided for foot and cycle traffic
- I fully support a cycleway being built alongside the full route of the proposed Link Road. This will provide a popular route for commuters and recreation riders.
- I think ability to bike this road would be very worthwhile over longer term.
- The current route via the Ngauranga Interchange to Grenada is much longer so provision for safe cycling use should be included. Addressing cycle access at interchanges or crossing points will also be important.
- If the new road does go ahead, I would like to see much better provision made for cyclists at the proposed roundabout i.e. something along the lines of the pedestrian/cycle tunnel at the top of Ngauranga Gorge so that cyclists aren't exposed to vehicle traffic entering or leaving SH2, as they are at present.
- This just needs to have cyclist provision. Gradient does not stop cyclists and touring cyclists will go where the road goes but must be provided with safe riding space.

Not necessary to provide for cyclists along P2G.

- The gradient will be too steep to attract cyclists
- The Link Road should be designated as a motorway so as to ensure cyclists cannot ride on it.

NZTA's focus

- NZTA is a multi-modal transport agency and should be looking at its transport network and putting forward projects that will address FIRST the highest needs mode - walking, cycling and PT.

Link between Grenada North and the Tawa Interchange

- Removal of walking route between Jamaica Drive and the Tawa Interchange would be a huge loss.

Location of a pedestrian crossing

- A potential location for a pedestrian bridge connection from reserve land at the end of Mervyn Kemp Drive (between no. 26 & 30) across to the area of bush immediately beside Bartlett Grove.

Support Beach to Bush

- Extremely beneficial.
- I like the idea of a cycle link.
- Would result in greater recreation and commuting opportunities for cyclists and walkers.
- This link is badly needed.
- Safe, convenient and improved facilities will result in more usage.
- Both are popular recreation areas so it makes sense to link them.
- This is important as there are not enough cycle ways in the area.
- It would open up the BRP as it would be more accessible - people are put off by the long detour to get there.
- Could be a potential tourism loop.
- Would be good to reduce the severance that SH2 has between the two areas.
- This needs to be done as promised when the pedestrian overbridge was removed.
- NZTA is a multi-modal agency and therefore must include such items as this.

- Enhancing pedestrian and cycling access to the Cornish Street entrance to the BRP needs to be addressed as part of the project.

Oppose Beach to Bush

- Unsure of the benefits as does not cycle in the area.
- Would have minimal benefits when compared to providing a separated cycle link from Petone to Ngauranga – it should be the priority over the Beach to Bush.
- Other cycle initiatives could be a priority i.e. P2N cycleway.

13.11 Public Transport (representative quotes)

- That thought should be given to extending the exclusive bus lanes on Petone Esplanade through the interchange, to maximize the number of commuters without increasing traffic.
- If it is commuters that are intended to use the P2G Link Road then the first step is to improve proposed public transport links along it.

Horokiwi public transport

- Horokiwi residents need access to public transport.
- It would be great if during the planning for P2G that public transport options for Horokiwi residents could be taken into account. This would be especially beneficial for children in the area.
- The P2G road needs to accommodate access to public transport for Horokiwi residents. This can easily be achieved by ensuring there is a bus layby and bus stop in each direction in a location as close to Horokiwi Road as possible. Car parking would also need to be provided, but this would not need to be on the P2 G road (i.e. could be on Horokiwi Road with walking tracks down to the bus bays.
- Provision should be made for public transport to and from Horokiwi which would allow Horokiwi residents to get to Lower Hutt shops and schools.
- Horokiwi Community Association (HCA) would like NZTA to provide access for Horokiwi residents to bus services which travel on the P2G.

13.12 Gradient (representative quotes)

Heavy vehicles

- Support the Option 4 route proposal provided adequate provision is made for freight vehicles given the steepness of the route (crawler lanes proposed).
- Good idea having six lanes wide to help with the slower trucks and vehicles as long as it's not too steep.

Gradient too steep for trucking

- I would question whether or not trucks would use it.
- The route is too steep.
- We query how useful this road will be in the long run considering its steepness.
- It is also too steep to be a good freight road and freight should be moved as much as possible to railways.

Gradient of Option D

- The consistent height seems a benefit.
- Think it makes more sense to link to Transmission Gully and the fact that it will be steadier gradient which makes the route better for cars and trucks.
- The gradients for Option D are far more attractive for this road.

- The route through Takapu Valley is about two and a half kilometres shorter and of a more constant grade.
- It is most practical to keep the road at a consistent height and link this proposed Link Road to Transmission Gully and modify Tawa's slightly difficult interchange.
- This minimises total travel times, fuel consumption, exhaust emissions and noise production and consequent impacts on people.

13.13 Previous TG Route (representative quotes)

PCE

- TG route going up the Takapu Valley had impacts that were too great, and this was the basis of TG being routed around Takapu Valley. There is talk about PCC but no mention of this report.
- As per the original proposal Option D (PCE report) The Parliamentary Commissioner for the Environment's audit on Transmission Gully (1990) states very clearly that the impacts on Takapu Valley are too great for a road to be put through.
- The Commissioner determined in 1990 that the impact on Takapu Valley by this large road project was too high.

Going through the same process again…

- We have already experienced the trauma of having NZTA's predecessor try to put Transmission Gully through the valley. That was successfully fought through the Environment Court and the road was moved further north. This sudden new plan to put a road through Takapu Valley again, feels like an almost lemming-like desire by NZTA to get a road through the valley at any cost. The Valley residents will fight this proposal as they did last time. We shall also be looking for ways to permanently protect the valley from any future road construction dreams.

Re-look at TG route.

- Brings the Takapu Valley back into contention, should result in the southern end of the TG Project being placed into review.
- Most important of all, now that the Takapu Valley is back in contention, a fresh look must be given to restoring the southern end of the TG Expressway to just south of the Countdown site on SH1.
- That the Cannons Creek to Linden section of the Transmission Gully highway be abandoned and that instead, Transmission Gully be redirected down the Takapu Valley to meet with State Highway One at the Tawa/Grenada interchange.

13.14 Width (representative quotes)

3 lanes

- The demand will not justify this amount of earthworks
- It is also unnecessary to have 3 lanes - 2 lanes would suffice in the steep gradient part and 1 lane on the level.
- SH1 and SH2 should remain as the main transport routes with no need for this to be a 6 lane road.

Option D

- Limiting it to a two lane link as proposed seems short sighted; especially considering the prime motivation for the link is to provide for heavy vehicle traffic on a significant gradient. A four line highway from the outset should be planned for to allow a slow lane for the heavy vehicles.

- It may be that only 2 lanes are built initially but this must be done in such a way that the second 2 lanes can be built within the available easement and on one side of the first 2 lanes.
- We question the decision to make it single lane. We urge NZTA to build for the future and consider making this stretch of road at least 2 lanes each way. NZTAs prediction of everyone driving along at the 100K speed limit, achievable because of the gradient, seems pointless if we are all sitting behind a truck doing its legal speed limit of 90 KM/Hr.

13.15 Straightening work on SH1 (representative quotes)

- It could be argued that NZTA have done little (if anything) by way of speed restriction and / or signage to alert users to improve the safety of this section of road.
- Curves in the alignment on SH1 at the Tawa Interchange. Currently there are no advisory curve signs or other speed limit advisory signs in either direction of these bends. It can then be concluded that there has not been any justification to either put up advisory warning signs or reduce the speed limit to improve the safety record of this section of SH1.

No engine braking

- 'No engine braking' signs for the trucks

13.16 Tolling (representative quotes)

Not supporting

- Specific impact on Horokiwi would be undesirable, especially if this was only access.
- Any sort of toll should be forgotten as this Link Road should have been built long ago.
- There are no benefits to tolling.
- Stupid idea – no one will use it if it's tolled.
- Opposed to the whole concept of tolling.
- Would still use the gorge if it was tolled.
- As a person that commutes between the Hutt Valley and Porirua I would prefer it takes a bit longer but is free.

Supporting

- Yes, as a temporary measure.
- If it was cheap enough ($1 or less) and could be automated.
- I would support tolling.
- If it's a reasonable toll and it gets built faster then go for it.
- We need the road to be completed sooner rather than later.
- Tolling is a realistic and good way to get these roads built and paid off sooner.

Specifics / further information

- How much would it cost?
- I believe modern tolling systems should make collection relatively painless and have little adverse economic impact on the Wellington community.
- Suspect that tolling would just encourage more use of the SH58/Transmission Gully option.
- To make it work I would imagine it would need to be a very affordable toll road.
- A charge of $2 to $3 one way I think is reasonable.
- It would depend on the method of tolling.

- I'd also want to know that the toll would not become a permanent feature of the road - rather it would have a definitive lifespan until the road was paid for as has happened with some other roading and bridging projects in the country.
- It would depend on (a) the amount of toll, and (b) how automated collection would be implemented.
- Depends on the amount of the toll, how many years earlier the road will be built, and length of time the road will be tolled.
- I think those who benefit from it should in some way pay a small amount towards it as it's used.

13.17 Benefit cost ratio (representative quotes)

- The cost-benefit analysis is done for project costs only - they are only looking at the construction of the road, not the ongoing cost to operate and maintain it. Option C and especially Option D are both building new stretches of road instead of utilizing existing routes. It will necessarily cost more to maintain two roads than it will to maintain one.
- Cost benefit (BCR) is evaluated against very vague capital costs only, and selected benefits. The maintenance and operational costs are ignored.

Use of other factors

- Mitigation for the environmental, visual and noise impacts and accommodation for walking/cycling along the new road must be costed and taken into account now to be able to work out a credible benefit-cost-ratio to assess whether this road should be built at all.

Option D BCR

- The extra costs of building the Takapu Link is rationalised on taking those 7,500 vehicles off SH1 and improving efficiencies for 375 trucks a day (based on a proportion of vehicles to HCVs).
- The cost of 6kms of new road 2 interchanges associated with Option D would surely bring the BCR right down – esp. if money could be put towards SH58 improvements.
- This addition must have a very poor Benefit to Cost ratio.
- The cut and fill volumes (and costs) for Option D are far more significant compared to Option C. It feels like a technical option (a "Link Road from a Link Road") designed on computer and not practically tested in practice as Takapu Valley is small and narrow.
- Removing the proposed Takapu Valley Motorway significantly reduces the overall cost of the upgrade projects.
- How can the road double in length and add four interchanges to the PFR alignment and still come out cheaper? I've looked at the Quantum model results, and it looks like you've saved some money on the costs of the earthworks, but that does not explain where the rest of the savings has come from.

SH58

- None of the options are evaluated against HCV efficiencies to TG over SH58 to Judgeford, although this route is shorter and has both a lower saddle and easier gradients. This evaluation fails the criteria to maximise value for money.
- Look at ways to improve SH 58 (Paramata Highway / Haywards) and encourage traffic to and from the Hutt Valley using Transmission Gully to also use this link I understand, the benefit to cost ratio for Options C and D is 2.1 (low to medium) and the justification for going ahead with either of these options is based on this figure plus an additional connectivity and resilience benefit.

Range of cost estimations

- The scoping report says the costs of each option will be: a) $175 to $396m b) $179m to $405m c) $179m to $381m d) $165m and $375m e) These figures are too loose and they are not useful to compare benefits or options.
- The margin of error in the ranges is around 140% ($165m - $390m). A general statement in the Scoping Report that all four options will cost approximately the same amount of around $250m is highly misleading.
- It seems to be quite illogical to believe that any of these additions could be absorbed into the original constructions cost of $250m.

Comparative cost of options

- A lot of Quantm analysis is done to find the cheapest possible routes for Options C and D, but not A or B. If Option A or B had been analysed and cheaper routes found, it would have changed the BCR (Benefit Cost Ratio) and made C and D look less desirable.

Influence of traffic levels

- The possibility of declining traffic levels in the future may require a re-analysis of the entire P2G road. If traffic levels are lower, and if many Hutt-bound vehicles use SH58 (due to the construction of TG), then P2G may be able to be a smaller road. This could have significant cost savings, leading to a higher BCR, a quicker build time, and a decreased burden on the NZ taxpayer. Specifically, the extra crawler lanes on the steep bits of the Petone end may be redundant, if all the HCVs are taking Haywards Hill, or if the overall traffic loads are low enough that 4 lanes is sufficient to allow passenger vehicles to easily overtake the "crawling" HCVs.

Greenfield vs active construction environments

- NZTA's advice that Project Costs for Option C and Option D are similar is questionable, particularly when comparing the operational impact assessments of undertaking a road widening project in a live environment compared to a roading project undertaken on what is effectively a greenfield" site.

13.18 Road design (representative quotes)

Barriers

- All steps need to be taken to reduce the noise impacts on Horokiwi through the provision of noise barriers.
- Noise barriers would have to be installed along the length of the SH1 if the motorway was widened through Option C.
- In other cities in NZ (i.e. Auckland) there is precedent for sound walls/barriers to be erected if the motorway is being widened / upgraded.
- In relation to Option D mitigation measures such as earth / noise fences ad use of subways should considerably reduce the negative effects.
- In the more rural areas mitigation measures such as earth / noise fences should reduce the effects.

Safety barriers

- Strong safety barriers would have to be installed to prevent trucks/cars coming off SH1 and onto the roofs of house.
- A sound wall/barrier would also provide some protection from errant vehicles.

Stock barriers

- Need to have sufficient barriers in place to help with keeping stock off the road, and to limit them being spooked.

Interested

- We are very interested to know what planting, fencing and earth sound barriers NZTA will be using to repair damaged hillsides, obscure light pollution and dull sound pollution.

Operational Network Connectivity

- Both Options will cause loss of amenities, loss of easy access to recreation areas, poor traffic routing into and out of both communities, economic devaluing of properties and significant stress to residents without a commensurate benefit to the wider Wellington community.
- Access on to the P2G is imperative for the Lincolnshire farm development to be successful for both our community later down the track. Putting a road through our rural community is going to change our community hugely, NOT giving access would mean we lost so much and gained nothing.
- The proposed route will result in the loss of the current north-south motorway access for Korokoro residents. As a result of the Dowse Interchange upgrade of SH2 we lost direct, traffic-light controlled access to SH2. This has added an additional 20-30 minutes for Korokoro residents accessing the motorway south during peak times.
- The glancing approach between the extension road up Takapu Valley and SH1 is basically designed to put people off using it as a P2G link. Vehicles coming from Petone wanting to go to Porirua have two choices to exit P2G - either at Lincoln Farms, or at Grenada North. The second would involve exiting P2G via a motorway interchange at Grenada North; winding their way down a steep hill and corners through Grenada North; turn left onto a new roundabout, go under the motorway and then negotiate a very small roundabout to gain access to the north bound SH1 on ramp at Tawa. Given that, it would not be surprising if those drivers actually chose to get off P2G at Lincoln Farms in Grenada and drive down Mark Avenue to get onto SH1 at the existing Grenada/Churton Park interchange.
- There were submissions made that suggested the Petone to Grenada Link road did not satisfy the connectivity demands of residents in communities
- There are very few residents that frequent the northern suburbs. Connecting to P2G at Grenada is not an alternative for most residents, as it means travelling either north or west to access Petone or the Hutt Valley and the existing connection at SH2 is the most preferred option. A connection to P2G at Grenada for Horokiwi residents will have detrimental effects on the rural character of Horokiwi.
- If option D goes ahead there will be significant restriction of access to and from Takapu Valley via the intersection to SH 1, due to the proposed design of the P2G roundabouts. As someone that works for a crisis service, there are many times when I need to be in the CBD without delay, we fear option D will severely impact on my work.

13.19 Congestion (representative quotes)

Petone Interchange

- The interchange is badly needed to reduce congestion and improve travel times.
- There is already significant congestion at the Hutt Road/ Esplanade intersection, adding a further road intersection here and brining more traffic to this pinch point won't help.
- I am in favour of a new Petone interchange because I live in Korokoro and see the huge amount of traffic that piles up there every weekday morning.
- I am concerned that there will be significant delays at the Petone interchange with the proposed layout.

Tawa Interchange

- Current designs for Options C and D will create severe congestion at the proposed Tawa/SH1/TG/Link Road interchange roundabouts.

SH1 Congestion

- Changes to SH1 infrastructure are required to reduce congestion, improve safety and make journeys more reliable and efficient.
- SH1 does not currently experience congestion that would warrant improvements such as widening or straightening.

Further Themes

- Whether or not congestion occurring at the Petone Interchange and on SH2 would be resolved by the proposed road, or simply shift the "congestion points".
- Whether or not Option C would contribute to congestion around the Tawa interchange, through bottleneck effects from reducing six lane traffic to four lanes on State Highway

13.20 Construction Effects (representative quotes)

- We depend on rain collection for all our water supply. We are very concerned that dust created from the road construction will contaminate our drinking water and dirty our property.

Concerns

- Loss of privacy
- Contamination of waterways (Horokiwi, Takapu Valley) and degradation of vegetation.
- This was particularly applicable for areas where communities are reliant on rainwater collection for water supply. And it was suggested that NZTA would need to compensate them for needing to freight in water for the extra damage to their property through dust nuisance.
- Personal/ Animal wellbeing
    - The resulting stress, anxiety and inconvenience that will be experienced through the process.

Site worker access through properties

- Workers and their heavy machinery entering our property to access the work site. What hours will they be working?
- I would expect full compensation of any damage to my property as a result of this.

Privacy and construction effects issues:

- While the road is being constructed, workers and heavy machinery will undoubtedly be working in very close proximity to our property, which would result in workers being able to see into our property. Furthermore, the work undertaken for the construction of the road would undoubtedly be noisy, and would heavily impact on our enjoyment of our land.

Traffic managements and diversion of traffic through Tawa

- We are acutely aware that any widening to the motorway will grind this suburb to a halt, for traffic will likely leave the motorway at Porirua to travel down Kenepuru Drive and the Main Road of Tawa before hopping back on the motorway at Grenada or Johnsonville.
- The construction period will delay and frustrate SH1 motorists for five years. SH1 traffic is likely to travel through the Tawa community as a result of the delays on SH1.
- As construction is proposed to take five years, the toll it would take on Tawa roads would be great. Would the cost of the offset to these roads be taken into account under this project?

Concerns about traffic management through the Petone interchange

- An improved SH58 connecting to TG from the Hutt also provides a backup route in case the P2G construction results in significant problems. I know that NZTA does everything it can to mitigate the traffic effects of construction, but the simple fact is that the Petone interchange is already overloaded with traffic. Congestion can be extremely non-linear in conditions of near-maximum capacity. A small problem can quickly compound into monumental delays.

Construction dust

- Planning for P2G must take into account the water and air quality issues…and acknowledge the impact on existing water catchments for people and animals, both during construction and thereafter.
- There is no piped water supply to the valley. Rain, bore and spring water sources are relied upon. The proposed Takapu Motorway will impact approximately a quarter of residences in the valley on spring water. The remainder of the residents in the valley are on tank water which will be at risk of contamination during construction of the road.
- We are also concerned about what impact the road construction and use will have on Petone beach and the harbour as a result of silt and other pollutants in run-off via the Korokoro stream and the smaller stream south of the Korokoro Stream.
- Construction dust will adversely affect animal feed and health.
- Construction dust will downgrade the quality and price of our fleece clip.

Construction noise and vibration

- Long drawn out construction period will expose residents in affected area to adverse effects from dust and noise.
- Workers and heavy machinery entering property to access the work site.
- Noise from machinery.
- Vibrations from machinery.
- The road work that would be required to implement the P2G Link Road would lead to heightened excessive noise exposure for a significant period of time
- Particular impact of noise and vibration on schools and residents associated with Option C

13.21 Contaminated Land (representative quotes)

Option 4 bypassing contaminated land

- I am in support of option 4 for the Petone interchange – it seems as though it will bypass Belmont Regional Park and any contaminated sites.
- Preferred option is my favoured solution also. Avoid traversing through the quarry, contaminated sites and Belmont Regional Park.

Use of pristine land over contaminated land

- It seems very wrong to be avoiding the contaminated sites and pushing the road into the more pristine land. Sure it would likely cost more to build on the contaminated land, but surely preserving our uncontaminated countryside is worth some extra expense

13.22 Ecological Impacts (representative quotes)

Ecological areas other than the BRP

- A great deal of consideration has been given by NZTA to the effects of P2G on the Korokoro Valley and the Belmont Regional Park, but the ecological corridors being established across northern Wellington seem to be receiving much less consideration.

Marine effects

- If the spoil is dumped into Wellington harbour that will be very costly and unacceptable for ecological reasons.

Weed and pest control

- Roads create a void which would allow gorse and weeds to thrive.
- This will negate land owners weed and pest control programmes that have been being implemented for a long time.

Korokoro / Belmont Regional Park ecological effects

- My preference is option 4. This avoids the Belmont Regional Park.
- I am in favour of the proposed P2G link provided the Korokoro Valley, Korokoro Stream and Belmont Regional Park are not encroached.
- I like the idea that is avoids the Belmont Park and is more resilient in case of earthquakes.
- We applaud the efforts made to avoid any compromise of Belmont Regional Park (option 4).
- The negative impact of the proposed Link Road on the Belmont Regional Park, and flora and fauna, the waterways.
- Please keep Korokoro Stream protected this is a very valuable resource and area for recreation and the new road and junction should do everything to avoid damage to this environment and the animals in it.
- Runoff into the Korokoro stream tributaries, and down all excavated surface will damage the flora and fauna of the whole catchment as well as the Korokoro Stream itself.
- I strongly support the protection of the Korokoro Stream.

Horokiwi / central area of the project ecological effects

- The disturbance to the regeneration of the both flora and bird life that is so necessary for the region and the wildlife in itself. The construction of P2G will have such wide ranging effects on all of Horokiwi, people, flora, fauna and our environment.
- Horokiwi is an ecological enclave of old growth forest and regenerating bush, and increasingly an established haven for native flora and fauna, some of which is rare. The buffering of Horokiwi by reserve areas to maintain its rural character has been a key platform in every submission and plan presented by Horokiwi residents to WCC, Greater Wellington Regional Council, and other bodies over decades.
- The P2G route must take into account and protect the buffer zones, reserves and ecological corridors which have been established and worked on by Northern Ward communities, especially Horokiwi, for many years.
- The construction of P2G will interrupt the bush corridors, buffer zones and new areas, dedicated to preserving and retaining our wildlife.
- NZTA have a clear plan for native bush re-vegetation, and that fire-prone gorse will not be allowed to take over. This is a very significant issue now, as there are a lot more people living in the area than in the past. A cigarette thrown from a car on the road in windy, dry conditions (that are likely to become more common as a result of climate change) could cause a fire.

Takapu Valley

- Option D is unnecessary and to date NZTA have failed to advise how they will protect the fragile and vulnerable ecology of the region they propose to effect.

Takapu Stream and aquatic life

- Takapu Valley is the last undeveloped headwaters of the large Porirua Stream catchment. It has no introduced trout and significant vegetation, resulting in a very high abundance of native Kokopu and long finned eels.
- Takapu Stream (headwaters of Porirua Stream) has diverse fish life and is the only catchment with Upland bully. The catchment is characterised by high density native fish such as the Banded Kokopu.

- The Takapu Stream provides 'mini' wetlands up and down the Valley which support a variety of water fowl (Pukeko, ducks, quail, blue heron, kingfishers and geese) and large concentrations of frogs which will also be affected by any change to the quality, volume and course of the stream and it's feeder tributaries brought about by road construction.

Birdlife in Takapu Valley

- Takapu Valley residents believe there is significant risk for the wildlife should the proposed motorway through Takapu Valley goes ahead. Residents report that Birdlife has continued to increase over the past ten years with new species, for example Kereru, now commonly seen in the valley.
- Kereru have an extremely disconcerting habit of getting hit by cars while flying low across roads or flying into windows. A motorway through Takapu Valley would be detrimental to the kereru who have made the Valley their home.
- Takapu Valley is providing a haven for the birdlife in Wellington, adding to the corridor from Zealandia through to Kapiti and beyond. Residents are proud that their on-going work planting and controlling pests is having such a benefit for the birdlife.
- Endemic bird species now commonly seen in Takapu Valley are Kereru, Piwakawaka (Fantail), Tui, korimako (Bellbird), Karearea (NZ Falcon), Riroriro (Grey warbler), kakariki (Parakeet) and putangitangi (Paradise shelduck). The native bird species now commonly seen in Takapu Valley are kotare (Kingfisher), Ruru (Morepork), pipiwharauroa (Shining cuckoo), tauhou (Silvereye/waxeye), plover and Pukeko. Of these, the Karearea is nationally vulnerable so its presence in the valley is valued.
- Flora Native/Regenerating Bush Several stands of native and regenerating bush are present in the many gullies running downhill into Takapu Stream. There have been hundreds of native species planted, specifically to attract native birds and other wildlife, creating bird corridors where before it was just plain sheep pasture.
- There is now an abundance of birdlife due to this effort.

Weed and pest control

- The property owners of Takapu Valley do extensive weed control to fight gorse, blackberry and a range of Wellington Regional Council defined weeds. There is significant concern that the presence of a significant traffic thoroughfare will reduce the commitment to weed control as properties are acquired by NZTA to complete the project.
- The Takapu Valley rural community currently forms a sympathetic buffer zone between the park and the more heavily settled residential areas in Porirua East. Residents undertake planting, weed control, and pest trapping projects that are beneficial to have on the park's border.
- Areas of no-man's-land (between houses, roads and rail lines) are a haven for weeds and litter and are adversely affected by habitat loss, storm-water discharge, sewage overflow, pollutants, soil erosion and sedimentation
- Valley residents actively participate in pest control through the trapping of possums and stoats and keeping the numbers of magpies and rabbits down.
- Property sections above the roadway be purchased by NZTA and offered to extend Belmont Regional Park forming part of a ridgeline ecological corridor.

13.23 Economic Effects (representative quotes)

- We believe that the options suggested would be built at huge $ cost and personal cost to communities - but that is the case with any major road building and must be weighed against general community benefit.
- None of the modelling is consistent with any other statistics for traffic movements in and out of Wellington. We do not believe that the proposed economic growth and movement

between Lower Hutt and Porirua will generate the traffic movement that the modelling indicates.

- HCVs departing the Grenada North industrial area will be required to merge with a traffic stream of about 2,000 vehicles per hour as they depart SH 1 to Petone. This will inevitably result in queuing and significant delays which negate the planned benefits for HCVs with respect to travel times and network efficiency.
- A figure of $250m is being put forward to construct the road, though NZTA indicate that it is it is likely that the cost will be higher. The figure of $250m is an enormous sum just to save a few minutes at peak time on SH2.
- Experts conclude the economic value of a scheme can be overestimated by the omission of even a small amount of induced traffic. We consider this matter of profound importance to the value-for-money assessment of the road programme (SACTRA 1994) quite small absolute changes in traffic volumes have a significant impact on the benefit measures.
- I feel the money which would be spent on this large project should be put to more good use – i.e... sealing our roads properly rather than tar sealing and stoning them that impacts on my vehicle's body and mechanical well-being. I am sick of seeing very poorly attended roads and the money should go towards attending to/maintaining what we already have.
- It will become increasingly important that there are reliable transport routes between these centres
- P2G will provide benefits, especially in terms of LCV (and occasional HCV) movements in the Wellington area, but considering it as a means for getting trucks to the north seems to ignore trends in long-haul freight movements.
- We support both options C and D. We believe that these options together will complete the current roading network to provide greater connectivity, reduce travel time and distance, make it more accessible for freight movement and further maximise the economic benefits for the region.

Future development

- Roads have been at the core of social development and governance for millennia. Rome could not have governed without its roads. Building and maintaining quality roads influences every aspect of our economic, social, cultural and governance arrangements. In the same way that the Johnsonville-Porirua motorway initiated a whole range of new developments and growth, further development of the major arterial components of our regional highways will create opportunities for the majority of the next century. It is therefore very important we think of them within structures which are simple, consistent with the difficult geography of the area, and provide opportunities for a future with an evolving technology and economic and political environment.

Intensification

- Intensification of both residential and commercial activity will be essential if we are to create traffic densities which support frequent services on those routes. Encouraging and planning development in these ways is clearly going to be an important role for local authority administration in the region.
- The Petone/Seaview/Gracefield area represents one of these areas that is overdue for transformational redevelopment… the shortage of alternate suitable flat land for large scale activities will mean that it continues to be used for this purpose for some decades to come.
- The growing Grenada North industrial area is positioned as an ideal hub and logistics distribution location. The existing Broken Hill and Elsdon industrial areas also provide a growing area for support and service industries.

Loss of commercial/industrial area

- Shortage of Industrial development areas may be a constraint on local job provision and economic development.

13.24 Health Effects (representative quotes)

Noise:

- Traffic noise has been proven to have wide effects on human health. Unwanted noise has wide-ranging effects on human health to a far greater extent than merely to cause damage to hearing. Noise results in cardiovascular issues, sleep disturbance, headaches, nausea, impaired task functioning, depression and is implicated in many other health problems as well as inducing anti-social behaviours.
- Low frequency sound, as produced by trucks, has a significant detrimental effect on health and causes sleep disturbance.
- We won't be able to sleep with our windows open for ventilation at night as the noise and fumes/pollution from cars and trucks will be harmful to our health.

Dampness

- As the bank that will be developed through bringing the motorway closer this in turn will stop us having the sunlight on our eastern side of our house. This then will create a damp area causing our house to create mould and dampness which will be harmful to all living in this house

Pollution:

- The two prevailing winds will not remove pollution from the valley without first channelling it up or down through the valley.
- Exhaust fumes from diesel trucks contain a toxic mixture of gases and particles that are harmful to our health.
- Fine particulate matter in diesel exhaust can bypass the body's natural defences, penetrating deep into the lungs where it may cause or exacerbate respiratory and cardiovascular illnesses, and even cause premature death.
- The updated HAPINZ findings show that man-made air pollution is associated with over 1,100 cases of premature mortality- that is people dying earlier than they would have if they had not been exposed to air pollution.
- Those of us on roof water would have it fouled with road dust and toxic exhaust particulates after the road is complete. Toxic runoff into paddocks and streams would be bad for children, bad for stock, bad for wildlife.

Respiratory effects

- Air quality: exhaust fumes day and night, plus any other pollutants, dangers to our health, our children's health and pet's health.
- I am asthmatic and would not cope with dust and car fumes from the Option D.

Stress and Anxiety

- Stress and Anxiety emanating from but not limited to the inconvenience, noise, pollution, the risk of structural and physical damage to properties due to earthworks, loss of the use of external parts of habitations due to noise and pollution, drainage and risk of flooding and contaminated run off from motorway works.
- Nearby residents would be highly likely to experience stress, and a loss of ability to enjoy their property (certainly the outdoor areas) or to carry on their lives in peace.

Artificial light

- Concerns that light pollution would interfere with the circadian rhythms of humans and animals.
- Melatonin, the naturally occurring hormone that regulates the sleep and wake cycle, is acutely affected by light pollution and deficiency can result in anxiety, mood disorders and insomnia.

- The circadian clock regulates physiologic activities such as brain wave patterns, hormone production, and cell regulation. Disrupting these rhythms can result in a variety of health problems, including sleep disorders, anxiety, depression, diabetes, cancer (particularly breast and prostate cancer), cardiovascular disease, immunological disorders, and obesity.
- The feeding, mating and migration cycles could be impacted.
- Nocturnal bird hunting and migration behaviour could be affected.
- Birds, such as owls, use moonlight and starlight to hunt and migrate at night.
- Amphibian feeding and mating behaviour could potentially be impacted through confusion and disorientation and impairing their ability to defend themselves against predators. Similarly for reptiles.
- Artificial light affects amphibians, causing confusion and disorientation, which causes a decrease in feeding and mating. It also impairs natural instincts that protect amphibians against natural predators and elements.
- Insects drawn to light, such as moths, would have increased predation vulnerability as well as interfered migration and mating behaviour.
- …moths are naturally attracted to lighting and may use all their energy to stay near a source of light. This interferes with mating and migration as well as makes them vulnerable to natural predators, which reduces their population.

Active lifestyle effects

- Sport, leisure and educational groups or individuals would have reduced or restricted opportunity to continue participating in their sports of choice.
- A number of sports groups, leisure groups, educational groups and individuals who will be greatly impacted by this proposal. These include, but are not limited to, Walkers, Tramping Clubs, Horse Riders, Cyclists, Schools and Sports Clubs, such as Athletics, Rugby, Shooting, Soccer, who currently use the Grenada North Sports fields.
- Consequences of diminished active lifestyle included, but are not limited to reduced social interactions and childhood obesity.
- The extra effort required to transport children to extra-curricular sport or social activities would become challenging and children will be withdrawn from such activities as a consequence. Furthermore it was raised that increased driving time and the reliance of private vehicles meant increased sedentary time which too had negative health implications.
- Families who use the sports grounds will withstand driving their children all over the place to play sports until it becomes too difficult, with the result of children withdrawing from sports. Which leads to childhood obesity, affects social skills, impacts the health system.
- The current reliance on private vehicle transport has negative impacts on health through road traffic crashes, air and noise pollution, greenhouse gas emissions and increased sedentary time.

Health related policy

- The lack of legal requirement on reduced car emissions. In particular it was raised that there is no legal obligation for catalytic converters to be fitted on cars. The implication being higher car emissions. As such it is concluded that air pollution in New Zealand contains higher amounts of carbon dioxide, hydrocarbons and nitrogen dioxide.
- Motor vehicles in New Zealand emit the air pollutants listed above to the same extent as in other countries, except that there is no legal requirement here to fit catalytic converters on cars, which makes our emissions of CO, N02 and hydrocarbons higher than in countries with more widespread use of these devices.
- It is difficult to quantify the likely harm on our members without having the full details. We expect they would be major and could possibly result in long term health impacts
- NZTA have recognised that noise is a nuisance and a health problem but they have not quantified the actual impact of noise on community health.

13.25 Heritage Effects (representative quotes)

- The Woollen Mills stone wall on SH2, built in 1886. Demolition, relocation or reconstruction of this heritage structure was not seen as an acceptable course of action. If it were to be moved, it was emphasised that discussions would be required with concerned stakeholders, including the Petone Community Board.
- The Athfield Architects house at 200 Horokiwi Road (circa 1977), which has been published as an important early work of the architects in several books dedicated to their work. Destruction of this property was not seen as an acceptable course of action.
- The two heritage listed houses in the (Takapu) Valley, associated with farms operating by the same families since the 1800s, as well as other historic houses in the valley. It was felt that the integrity of the valley as a historical farming community was worth protecting.
- That the proposed motorway would damage the heritage fabric and feel of Takapu Valley forever, a site with rich background and heritage in early New Zealand history, and a site at which 35 families currently live and many others visit. It was emphasised that some families currently farming in the area had done so for four or more generations.
- That the proposed road would impact the heritage aspect of the farms in the Valley, including one of Wellington's oldest continuously settled farms.
- That the route is historical and had possible archaeological importance, not yet explored. It was also a passage of importance to Maori and in the settlement of Tawa.
- That the land on which the proposed Option D road is to be built is currently used by a range of people for different sporting and recreational uses, which would be impacted by its development. These include walkers, tramping clubs, horse riders, cyclists, schools, sporting clubs and historical re-enactment groups.
- That the long equine history in the area may not be preserved. It was emphasised that a horse and stock friendly method of crossing the Link Road needed to be considered for horses on Lincolnshire farm. This was seen as important to ensure the farm remained an asset to the Wellington equine community. It was also commented that the crossing could be used by pedestrians and cyclists if there were future housing developments in the area.
- Option D and the modified Option D eliminate most, if not all, social and land use impacts, because it does not split the residential-rural community.
- Takapu Valley is becoming increasingly urbanised and less rural in character and as such has no archaeological, cultural or heritage qualities.

13.26 Rivers, Streams, Hydrology and Access to Water (representative quotes)

- A concern that the road would spoil the Korokoro Stream environment and Horokiwi area, which currently has a reserve and rural nature. Korokoro stream was emphasised to be a very valuable resource and area for recreation. The Petone Community Board would like assurance that the Korokoro Stream and wider Belmont Regional Park will not be negatively impacted by the Link Road. Any roading option which travelled through the Regional Park or negatively impacted the Korokoro stream was seen as unacceptable.
- It was suggested that the stream should be brought out from underground or other measures taken to restore its health and biodiversity in the project process
- A desire for NZTA to provide assurance that only water safe for recreational use will be discharged into the harbour from the new road, and so will not impact recreational activities on the Petone foreshore.
- A concern that vehicle exhausts would form deposits in roadside areas, which would then dissolve in rainfall and contaminate water and soil.

- A concern that loss of topsoil and waterway contamination during construction could cause silting downstream and adversely affect wildlife, including the two threatened species of native fish (Longfin Eel and giant Kokopu) which live in it.

Farming and residential effects on hydrology

- That water access could become an issue for stock through development of the road. Underpasses were identified as important to ensure livestock and horses were kept safe.
- That existing water catchments needed to be considered, and their impacts on people and animals during construction and thereafter. Toxic runoff was specifically identified as a concern.
- Many of those living in the area rely on rain collection for their water supply, and there was a concern that the dust created from construction of the road would contaminate drinking water. Where drinking water needed to be shipped in, it was suggested that NZTA should compensate for this. It was emphasised that the project needed to take into account water and air quality issues for residents.
- Water quality for residents after construction from 35000 vehicle movements per day was also identified as a concern.
- There was a concern that those who rely on spring water or bore water may lose their water supply, depending on the road alignment and damage to the hills. Where current water supplies are disrupted by the construction of the road, it is emphasised that the Council will need to provide reticulated town supply water to the residents.
- There was a concern that the change from pastoral land to motorway would negatively impact water catchment in the Takapu area, the second largest Porirua Stream sub-catchment at 900ha.
- There was a concern that residents who currently collect food from the stream (e.g. watercress) would no longer be able to post construction of the road due contamination of the stream from toxic run-off.
- There was also a concern that the new road would negatively impact educational opportunities at the river, as local colleges currently used the river for this purpose.
- There was a concern that increased runoff is not accounted for in the existing bridges and culverts.

Management of hydrology

- The management of storm water run-off during construction and after its completion would require careful design and management.
- There was a concern that water running down the road at speed will be an issue when there is heavy rain and potentially cause flooding issues and scour damage to the road surface. Comments were also made that debris flowing across the roadway is a storm event where gutters are blocked could create hazardous driving conditions.
- There was a concern that the construction of the road could lead to higher risk of flooding for some residential properties, due to increased run off and the extended width of impermeable motorway surface. It was emphasised that these increased drainage needs should be considered carefully, as well as potential flooding impacts for residences near the motorway. A reduction in the size of ponds behind the dam formed by the motorway was also identified as a concern, meaning that less water could be held in the ponds therefore contributing to flooding in the valley as the excess water spilled over the motorway.
- The proposed project could provide the opportunity to mitigate flood risks in some areas depending on the option selected.
- There have been no details of storm water drains for the excess surface run-off, and I would like to know where these would be placed and if this would involve mine or others' properties being dug up in order to install/connect to drains.

13.27 Landscape and visual effects (representative quotes)

- Option C of the new linked road will go through the middle of our section - this is not what we want. Option D will not go through our section at all but instead run through the section in front of ours. I strongly disagree with option C as this means it will completely shatter our life & Dreams.
- We do not want our house devalued by this project and do not want our current outlook destroyed.
- The Option D proposal changes all that, with any potential property sale price being likely to be heavily discounted as a result of the negative impact of the proposed development. This is a significant loss of equity with no right to compensation.
- From the moment construction commences the serenity of our property that we have enjoyed for 15 years will be destroyed forever.

Changes to the look of the landscape.

- All of the options will scar the landscape and in my opinion none of the options are satisfactory. The visual impact will be huge. The cuts that are 100m deep will be up to 220 m in width at the natural hillside. It will be an ugly eyesore and alternative options such as tunnelling should be considered or a longer route that does not cut into the hillside as much.
- The huge cuttings proposed are going to look very ugly from Petone and the Southern end of the Hutt Valley, and from areas of Petone, Maungaraki, and Belmont Regional Park.
- The visual and sound pollution of the escarpment should be minimised - esp. the effects on people using Belmont Regional Park and Korokoro residents (esp. Korokoro Rd and Titiro Moana Rd.
- Korokoro people living in about 200 homes, only 700-800 m across the quiet valley from the road, will see the massive sides of the trench and retaining walls (up to the height of a 20 storey building), the lights, and effects of the earthworks and radical modification of the shape of the land. Our landscape will be permanently changed.
- The visual pollution is another major factor worth considering. The large black strip of road replaces our vista of an unspoilt rural valley, all the rubbish that clean green kiwis tend to throw from their vehicles would be ever present.

Visual impact on night sky – light pollution.

- Visual impacts aren't just limited to daylight hours. Night time lighting will produce an equally significant impact in a different way.
- Similarly lights from P2G vehicles will cut through the darkness, and given the frequency of thick fog at Horokiwi' s elevation, roading lights for safety will further destroy the night sky.
- At night we hear moreporks, a pin drop. We have a terrific night sky view. P2G will destroy all of this forever,
- P2G light pollution will ruin our fantastic views of the night sky.
- The quiet acoustical environment and dark sky amenity values of Horokiwi will be seriously compromised both during the construction phase and afterwards.
- One of the joys of Takapu Valley is the darkness and being able to see the night sky. There is no lighting in the valley beyond very low density house lighting. The diurnal impact of a motorway through Takapu Valley during the day will be significant, but the nocturnal visual impact will be massive.

Wildlife

- I'm especially concerned about impacts on the significant population of Morepork (Ruru) that lives in Takapu Valley. Road lighting detrimentally impact these birds and will also impact and change behaviour of insects that moreporks rely on.

- This work will destroy a whole stand of mature trees (including natives with resident bird populations, including Tui and Morepork).
- Luminous pollution affects the feeding, sleeping, mating, and migration cycles of all wildlife. Birds, such as owls, use moonlight and starlight to hunt and migrate at night. Artificial lights sources can overwhelm natural light sources, causing birds to be drawn to or fixated on the artificial lights.

BRP

- They all will have a negative impact on Belmont Regional Park, visually and to wildlife.
- However, in general terms, a new interchange at Petone would really need to: Provide easily access to Belmont Regional Park… and minimise the impact on the park from traffic noise, fumes, and visually.

I am opposed to this proposal since it is unnecessary and would ruin the beautiful surroundings of this valley. As a visitor to this area for certain outdoor activities, I have come to appreciate the natural environment it provides and the semi-remote access it has. I vote to keep it this way."

13.28 Operational effects (representative quotes)

- Option D will cause significant damage to the Takapu Valley local environment. This will include damage to waterways and aquatic-life, reduced air quality, significant noise pollution, light pollution and negative visual impacts
- Submissions made with regard to operational effects of Option C focussed more on personal impact of residents in Tawa. This included, but was not limited to the effect of the road on students as any of the affected school, and restricted or reduced privacy due motorway proximity to homes
- "We won't be able to open our windows as the noise is going to be closer to our house and louder, this will take away our privacy and being able to outside in particular areas"

Operational dust

- We rely on roof water as our household water supply. This will become contaminated from the diesel fumes and brake dust in the atmosphere from passing vehicles.
- The bug bear of living close to the motorway is road dirt on the house and cars, this can be extremely hard to remove.
- The result will be a lot of extra noise, light and the visual impact, plus again dust and noise during construction affecting our water supply which comes directly off our roof. The northerly is the prevailing wind and comes straight up the valley where construction will occur and over our land.

Operational Noise

- The quiet acoustical environment and dark sky amenity values of Horokiwi will be seriously compromised both during the construction phase and afterwards. If, on a still day, a barking dog can be heard from Korokoro, the sound of earthmoving machinery and truck brakes will change the acoustic environment irrevocably.
- We won't be able to open our windows as the noise is going to be closer to our house and louder, this will take away our privacy and being able to outside in particular areas.
- From the moment construction commences the serenity of our property that we have enjoyed for 15 years will be destroyed forever.
- Due to the 'v' shape of a valley, significant noise reflections and echoes from the opposite valley slope can be expected. This phenomenon is already apparent on still days, when conversations and low level animal sounds on the opposite side of Takapu Valley can be heard from quite a distance

- If Option D goes ahead, the noise in the valley will become considerably greater, not only during the construction, but once complete, the sounds of constant traffic, including many HCV's, will take over our once quiet valley.
- The shape of the proposed road is a giant funnel which will blast us with the sound of trucks engine braking down the steep incline of P2G.
- Heavy vehicles are not subject to the ONT's (Objective Noise Test) and no consideration is given to the fact that they become noisier with age. NZTA have recognised that noise is a nuisance and a health problem but they have not quantified the actual impact of noise on community health.
- We would want this practice prohibited in this area. We would like signs put up now please, it can get very loud in the middle of the night.
- The proposed road through Tawa will increase noise and pollutants to the area due to Tawa existing in a geographical basin, resonating operational noise caused from the motorway.
- Increase of noise and pollutants to all around Tawa, as Tawa is a basin and the noise will carry afar from the streets around the motorway to other streets around Tawa.
- Increased noise for residents and schools - when we come home at night we don't want to hear excessive noise during the night/early morning
- At present, noise from the motorway is already disruptive when road works are undertaken. The existing land barrier between State Highway One and the roadside properties is covered by dense bush, which mitigates this to a degree. However, if this natural barrier were removed, increased noise would be increasingly problematic, especially given that two additional lanes and an increased flow of traffic are envisaged.
- NZTA needs to recognize that silence and darkness are core values for the Horokiwi community, and provide robust and effective plans to address this significant loss of amenity
- We are very interested to know what planting, fencing and earth sound barriers NZTA will be using to repair damaged hillsides, obscure light pollution and dull sound pollution.
- …double glazing and blackout curtains for residents together with other mitigating factors such as acoustic fencing will be needed.

13.29 Pollution (representative quotes)

- The proposed highway would impose noise, dust, air pollution, light pollution at night, toxic run-off, rubbish thrown into paddocks, and risk of brushfire from cigarette butts and crashes
- Toxic exhaust fumes from trucks
- Runoff from roads
- Putting in a few trees and token wetland would be little better than fitting a hook to the stump of an amputated hand - it may meet the technical definition of "mitigation", but it cannot change the fact that the fundamental nature of the valley would be irreparably crippled.

Air pollution

- Geographical features affect the dispersion of air pollution. Settlements in locations with geographical features such as valleys or low-lying land surrounded by hills are often more susceptible to a build-up of pollution. This would certainly be the case in Takapu Valley which is quite a narrow valley with steep inclines on either side.
- Increased air pollution from vehicles will affect the quality of the rain water collected. The Council will need to provide reticulated town supply water to all residents.

Light Pollution

- The proposed new Takapu Motorway will introduce light pollution, with intermittent, irregular exposure due to traffic, as well as permanent lighting along the motorway.
- Currently Takapu Valley is a dark rural valley with great visibility of the night sky. Light trespass, also known as spill light, occurs when a light fixture casts illumination beyond the property lines, unintentionally illuminating other areas. Spill light is the most subjective form of light pollution because there are no guidelines to determine when, where, or how much light is unwanted. A common example of light trespass is light from streetlights coming through a window and illuminating a bedroom.
- Luminous pollution affects the feeding, sleeping, mating, and migration cycles of all wildlife. Birds, such as owls, use moonlight and starlight to hunt and migrate at night.
- Artificial lights sources can overwhelm natural light sources, causing birds to be drawn to or fixated on the artificial lights. Artificial light affects amphibians, causing confusion and disorientation, which causes a decrease in feeding and mating.

Water pollution

- All Horokiwi residents depend upon rainwater collection for their water supply via roof-top collection. There is serious concern about the dust and pollution which will be generated during the four years of construction, and once the road is built, by the effect of 35,000 traffic movements each day on both water and air quality.
- The introduction of significant extra traffic in the (Takapu) Valley (7,500 vehicles per day) will result in a high level of air-borne contaminants that will severely compromise our water supply.
- Loss of topsoil and waterway contamination during road construction are also a major concern, causing silting further downstream, adversely affecting wildlife.

13.30 Recreational (representative quotes)

- Recreational use of Korokoro Valley will be compromised. At present an estimated 50,000 people a year from around the Wellington region visit Belmont Regional Park from the Cornish St entrance along the Korokoro Stream, to walk, run, cycle, fish, or picnic. Their experience now is of being in a quiet peaceful valley. From most places there are no houses or other structures can be seen.
- Detrimental effect on the Petone Esplanade and its use as a recreational facility would be catastrophic.
- ...the road will adversely impact the Cornish Street Entrance to the Belmont Regional Park in particular and have a general detrimental impact...
- Scale of interchange impacts on amenity value of the walking track, at the end of Cornish Street, through to Korokoro Dam.
- The Beach to Bush link has been mentioned in the scoping report, but in fact the result is likely to be more of a bush to beach disjunction than we currently have.

Petone foreshore

- People would be unable to use the Petone Beach, Belmont Regional Park (via Cornish Street entrance) as the road would be too busy to get across.
- There is already concern about traffic on the Esplanade creating a disconnection from the beach and harbour.
- Safety of recreational users given the immediate proximity of road and heavy traffic volumes.
- Concerned at the destruction of tranquillity – for users of the valley, of Petone Bach and the foreshore, and for Korokoro and Horokiwi residents.

Beach to Bush

- The main benefit would be greater recreation and commuting opportunities for cyclists, walkers/hikers, families etc. This in turn would encourage people to participate in the above activities, encourage people from around the region to come to Petone and allow for increased economic opportunities as business moves to capitalise on the increased patronage
- Valuable thing to do. Both are popular recreation areas and the Belmont Regional Park is already well used by bikers.
- I think this would be used on a regular basis by keen cyclists, walkers, runner and the like. One of the key benefits is increased appeal for people to get out and exercised in the area through their preferred mode.
- Renewing connection between the Petone Beach and the most used entrance to the Belmont Regional Park.
- Safety and improved facilities = improved/more usage.
- It is essential to provide a very good pedestrian and cycle link between Belmont Regional Park and Petone Foreshore and to reduce the severance that State Highway 2 creates. Previous, road focused, projects have reduced access and diminished the amenity of these areas. Access between the suburb of Korokoro and Petone would also be improved for walkers using the old mill workers track.
- The importance of this connection will only increase, in the future, once the Petone to Ngauranga cycleway is completed. The pedestrian and cycle link is important for health, recreation, tourism, environmental and community resilience.
- A children's cycle park by the beach would be a great facility and could add a fun aspect to the infrastructure.

Access to BRP

- With the north-western corner of the park severed by Transmission Gully, Takapu and Grenada North are the best remaining places to develop new or improved linkages to the park from the west, and both of them will be cut off from the park by the proposed Option D.
- Access to the Belmont Regional Park will be detrimentally affected as access will be compromised.
- Good natural recreation opportunities that close to Wellington and Porirua are rare, and it would be terrible to lose this one.
- Takapu Road is a key gateway into Belmont Regional Park and the Takapu Track offers breath-taking views across Takapu Valley, Kapiti Island (below) and to the South Island.
- The western side of Belmont Regional Park is not mentioned, despite the fact that the Takapu Road entrance - which will be compromised if not removed by Option D - is shown in the Regional Parks Management Plan as a major entrance to the park, is one of the few entrances on the western side of the park, and is the only entrance actually within Wellington City.
- There has been little consideration if not any consideration for recreational users of Takapu Valley, Belmont Regional Park users and the greatly impacted Grenada North Sports clubs.
- The only access to the park from Horokiwi is a track 6.5 Km up Horokiwi road from Sh2 and I would like to see provisions made for access lower down.

Recreational use of Takapu Valley

- I am opposed to option D because I regularly visit Takapu valley as part of a historical re-enactment group and the proposed road will ruin the property at which I do that.
- Removal of recreational opportunities in Takapu Valley.
- We do a biology field trip to the Takapu valley where we look at the stream.
- The stream is used as an educational tool as it is easily accessible to schools etc.

Grenada North Playing Fields

- Opposed to Option D the road is unnecessary and to date NZTA have failed to advise how and when they will replace the lost sports fields.
- We also are part of sporting groups which use the Grenada North sports fields and the proposed road will eliminate all of these without any suitable alternatives being presented in any of the documentation provided or presented at the public meetings.
- With ongoing population growth the region needs to ensure planning for sports fields aligns with likely future demand both in terms of field capacity and field location.
- Surely losing any existing fields will be extremely detrimental to the sporting activities of the younger Wellington population.
- Option D will run straight through all the sports grounds in Grenada North. The implications are not mentioned at all in the scoping project.
- Move the existing proposal further east, thereby missing the sports fields at Grenada North Park, miss the new sub division on Havana Rise and keep the road at a more consistent height with Transmission Gully. It would provide improved access to the sports fields, especially teams travelling from the Hutt.

13.31 Safety (representative quotes)

- There is often thick fog throughout Horokiwi
- The thick fog needs to be considered in terms of safety of drivers and other users
- It will be subject to extreme winds and frequent cloud and mist cover. How will these affect drivers? Will they increase the likelihood of accidents, especially of high-sided and heavy vehicles, like trucks, or smaller, lighter vehicles?
- Cyclists should be provided with safe access along the P2G route.
- Significant traffic management would be required if traffic levels were to increase through Tawa during construction.
- Many school children walk to school.
- Other routes may have to be developed to take traffic flows.

13.32 Social/Community Effects (representative quotes)

- I don't agree that either Option C or D should go ahead. Option C would be devastating to a lot of families, losing homes, disruption to Tawa itself, unsafe with 2 major schools. As for Option D, Takapu Valley is a lovely rural area and families' lifestyles would be shattered with such a road going through.
- At the local level both options will have a serious effect on Tawa, either the residents near SH1 or the considerable amenity value of Takapu Valley.
- Withdraw both Option C and Option D while they are still in the scoping stage. The short, middle and long term cost to this community are enormous.
- The upheaval in the community is starting to cause concern. The uncertainty that will hang over both Tawa and Takapu is not good for residents or businesses.
- People need to be provided with certainty concerning the proposals so that they can plan ahead. Affected families have ten years' worth of stress and anxiety in store for them (some of whom are elderly and may not have ten years).
- It is stated explicitly that the "preferred" option should be the one with the least social and community impact, but then the NZTA pointedly do not do any comparative evaluation to figure out how much impact each option would have.
- This is a hole in the evaluation criteria.
- Social and Community impacts are discussed but then removed before the comparative evaluation.
- This could consume my life until this project is approved for construction. This all takes time that I could be spending with my children or at work being a productive member of

society. People are losing sleep worrying about these proposals. There should be some compensation for this disruption/stress.
- Given the disruption to residents in the affected area and to the Tawa Community as a whole, the costs, the destruction of new sub divisions where housing has been planned for and sections sold, access to existing properties, drainage issues and the negative effect on the schools, not taking action would appear to be a common sense decision.

Horokiwi Social Effects
- prefer it to go up through the Quarry, so it would have less impact on businesses and the Horokiwi community
- A route for P2G through Horokiwi Quarry and undeveloped land above the quarry was proposed in a detailed consultation process with WCC and NZTA in 2009-10. This option would have skirted Horokiwi, with much less impact on the community.
- The social impact is so great that we can really only focus on this aspect.
- All Horokiwi residents would be directly affected by this proposed Link Road.
- The Link Road has no benefit at all to the residents of Horokiwi. However, it slices the close knit community in two.
- The costs to the Horokiwi community from the P2G Link Road will be considerably greater than any benefits that may accrue to the community.
- Any benefits of the P2G road will be to the wider community with a cost to the Horokiwi community.
- There will be adverse effects for the Horokiwi community which cannot be mitigated, such as loss of rural amenity values and rural character, loss of community identity, and the impact on people's plans for their properties.
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- Any benefits of the P2G road will be to the wider community with a cost to the Horokiwi community.
- There will be adverse effects for the Horokiwi community which cannot be mitigated, such as loss of rural amenity values and rural character, loss of community identity, and the impact on people's plans for their properties.
- We recognize that the P2G expressway is likely to go ahead. Our focus now is on mitigating its effects on our lifestyles, properties and community.
- The Horokiwi community is united in wanting Horokiwi Road to remain the connection between the northern part and southern part of the Horokiwi community and that this connection should be an integral part of the P2G project.
- It is imperative that Horokiwi Road remains connected between the northern and southern part of the community.
- Over many decades Horokiwi has been inextricably linked with Petone. Petone is our centre for schooling, shopping and other activities. Many residents work in the Hutt Valley.
- For security reasons there should be only one access point into Horokiwi.
- Having only one exit point from a suburb is like only having one door in your house. What happens if there is a fire at your door? We need 2 exits from Horokiwi.
- Horokiwi can be a target for crime, especially burglaries and stock theft. The community has installed a camera on Horokiwi Road providing a higher level of security for the community which would be more difficult to maintain if access to Horokiwi was provided via the Grenada to Petone Link.
- If the goal of the project is to increase network resilience Horokiwi should not miss out on this

- Horokiwi residents need access to public transport and cycle access onto the new public road.

Korokoro Social Effects

- We already suffer from NZTA's transport planning that takes insufficient account of the needs of local communities.
- The visual and sound pollution of the escarpment should be minimised.
- Many residents are concerned about what they will see from Korokoro.
- Living on the hills next to and overlooking the Korokoro Valley is very important to our sense of place.
- Very surprised to find in the Scoping Report that there was absolutely no reference to Korokoro in the Community and Social Considerations Section.

Grenada Social Effects

- This has completely dashed our plans to build our retirement home.
- This is very stressful.
- We have no other option to go forward with our build, even though our new home could be demolished with these plans.
- Serious consideration be made to move the position of both option C & D to be further east and not pass through the residential area of Grenada Village as planned at present.
- The loss of the sports grounds is especially significant as it affects not only the residents of Grenada North but the sporting community as well.
- Removal of the sports grounds which is the only community facility that exists in Grenada North.
- Removal of the walking route between Jamaica Drive and the Tawa Interchange.
- Stress that will be added to the Residents will be horrendous with trying to negotiate the walk down Jamaica Drive and this increase in activity. We are all for progress but let's not forget about tiny communities like ours and the huge impact it is going to have on them.
- The greater project will have an effect on the Grenada, Grenada North, Tawa and Linden communities in a wider sense with respect to the way they go about their business and their lives in general.

Takapu Social Effects

- Option D will have serious negative impacts on the community in Takapu Valley: a. Loss of homes and property. b. Loss of community. c. Increased noise and pollution. d. Increased anxiety and stress for all nearby home owners. e. Devaluation of nearby properties.
- Option D, will cause irreparable damage to a currently peaceful community and environment that at present does not have a motorway passing through it.
- We visit the valley frequently for recreation and held several events on farms in the area that would be hugely negatively affected.
- I do not support the Option D route through Takapu Valley. This would have a severe impact on the quiet rural character of Takapu Road.
- Our Way of Life/Community spirit in Takapu Valley is a rural community on the outskirts of Tawa that is home to a range of people from early settler families through to relative newcomers. Though there is a diverse range of backgrounds and personalities, there is a common sense that this is a great place to live and a there is an appreciation of the many benefits that the rural lifestyle has to offer.
- Thirty five families currently live in Takapu Valley and enjoy its unique, quaint rural character, as do the many visitors to this little slice of paradise.
- The Scoping report talks up how valuable Horokiwi is, and how effects on the community there should be minimised, because there is no "choice" presented as to whether the route will go through there -the route goes through Horokiwi under all of the proposed options. The project team will not present the social and community values of Takapu Valley in a

similar way, because an honest appraisal of the negative impact on Takapu Valley would damage their chances of getting their pre-determined preferred route.
- Because of the lower population density in the Takapu valley and because of the position of the proposed road on the East side of the valley, the impact of noise and pollution on people will be significantly less than Option C.
- Less people and properties would be affected by Option D in comparison to Option C. A variation that is less harmful to Takapu Valley residents should be NZTAs preferred alternative.

Tawa Social Effects
- The loss and destruction to families' homes and lives does not justify the small benefit of having a few extra lanes to the motorway.
- Making SH1 wider I perceive could impact more people and properties rather than having an additional road through the countryside.
- Option D is the best option, I oppose option C due to the fact the motorway widening will impact hugely on people's homes and the Tawa Intermediate and Tawa College Schools.
- I have read up on both proposals and find it hard to believe that Option C is even on the table. It will cause major destruction to the Community of Tawa during its construction phase and even after it is complete I fail to see how it will elevate traffic congestion, or insulate against traffic jams after an accident or if there is a major disaster.
- Concerned of the effect it will have on Tawa College which will affect many families in Tawa including my own in the future.
- Tawa College will be adversely affected, losing classrooms and resulting in children being much closer to the motorway (with the associated dangers of being closer to traffic and being exposed to increased levels of exhaust fumes).
- The closer proximity of the extended motorway to the College means a greater risk factor for the Tawa College community
- Tawa College and Tawa Intermediate are cornerstones of the Tawa community and these schools would both be negatively impacted if their teaching space/capacity were reduced.
- Option C is very disruptive to a large number of Tawa home/land owners and would affect greatly the local college and intermediate school that in turn would affect many Tawa residents.
- Additional traffic through Tawa would cause a heightened risk for the large number of young school students walking and cycling to and from school along Main Road.
- The community and landscape surrounding option C, already encompasses the existing SH1 therefore additions and works to this section of road will not alter the current social and environmental landscape to the same degree.
- While option C will also impact on a number of properties, the motorway in Tawa already exists, and widening it will not significantly increase its impact on Tawa.

13.33 Traffic Management (representative quotes)

- This concern is about traffic volumes more than congestion. We want to see more information about what impact more traffic will have on the Petone area and how an increase associated with the Link Road will be managed.
- Both options C and D will cause a large increase in the traffic exiting SH 1 at the Tawa interchange which will have a major effect on traffic from Takapu Road trying to get on the interchange.
- The most obvious problem is likely to be increased pressure on local roads, particularly Main Road (which is often busy and slow-moving as it is).
- Our street is a very, very busy street as it is during school pick up and drop off times and with the number of extra vehicles on our road due to the widening of the road would create a lot of chaos for our street.

- Traffic modelling tends to over-forecast long term trends, despite evidence showing otherwise.
- I do not believe that extra capacity on SH1 between P2G and TG has been adequately justified

13.34 Urban Design (representative quotes)

- How attractive and user friendly the link is may dictate whether people use it.
- Innovation should be used to ensure that the link to BRP is effective and safe.
- Careful design mitigating visual effects as much as possible would be required to preserve the green backdrop that the hillside currently provides.
- The area around the interchange is a 'main entrance route' to the city identified within the district plan. District Plan policies and rules are in place to lift the appearance of new buildings and structures in this area so Hutt City Council would want to have a high level of input into the design of the interchange.

13.35 Climate Change (representative quotes)

- Climate change is a real factor and public transport should be encouraged, especially the rail networks. We're supposed to be trying to save the planet for future generations to enjoy as we have.
- World-wide there has been an acknowledgement that CO^2 emissions and global warming is becoming such a problem that the world has to act.
- Perhaps with climate change and the resulting changes in agricultural and horticultural possibilities, we will need rural areas such as this valley to produce food.
- The Link Road will incentivise the use of private motor vehicles and reduce public transport usage.
- In 2007, transport contributed 14.9 million tonnes carbon dioxide equivalent (20 per cent) of New Zealand's total greenhouse gas emissions, an increase of 70 per cent from 1990. Road transport is the largest contributing source of these emissions. We should be taking vehicles off our roads, not investing in more roads."
- On one level, the road, by shortening journey times, could be seen to reduce CO2 emissions. However, if it results in more vehicle movements it may lead to increased emissions.
- The future will include means of personal mobility, probably requiring much less energy than those we use today, but for such mobility, appropriate routes and capacity will be essential. The technology we use on them will be different, but significant personal and personalized movement will remain.

13.36 Cross Valley Link (representative quotes)

- The CVL must be addressed at the same time as the P2G Link Road rather than be left to be addressed later.
- Would prefer that traffic was directed to a CVL rather than along The Esplanade.
- Increasing congestion along the Esplanade will lessen the benefits that the P2G Link Road can deliver.
- The CVL would provide a superior alternative to use of the Petone Esplanade for cross-valley traffic.
- CVL should be a priority over the P2G Link Road.
- A CVL is essential to allow heavy traffic to avoid The Esplanade.
- If P2G goes ahead a CVL must be investigated ASAP.
- A CVL is needed to support transport flow and economic centres of the Hutt Valley.
- A CVL in conjunction with upgrading of SH58 would be preferable to the P2G Link Road.

- Lessens the need for a CVL having a full interchange at Petone and traffic being able to use The Esplanade.

13.37 The Esplanade (representative quotes)

- Impact of 10,000 extra vehicles onto an already overburdened Petone Esplanade.
- The community would have an even busier/dangerous road to get across to reach the beach.
- Maintenance would fall to HCC ratepayers.
- Need more information about the impact that this will have on The Esplanade.
- Currently the Esplanade is under huge pressure from heavy transport and local traffic – we should be discouraging heavy traffic from using it, not encouraging it.
- There are already 10 minute delays during peak times along The Esplanade. It cannot handle an extra 30% of traffic as forecasted by each of the options.
- The impact on The Esplanade needs to be considered during the design stage.
- Impact on the use of the Petone foreshore would be detrimental.
- Crossings/footbridges over The Esplanade should be considered.
- Improvements to the Esplanade or the establishment of a CVL needs to occur before the P2G Link Road is constructed.
- Increased traffic would impact on safety and recreation along The Esplanade.

13.38 Public Transport Investment (representative quotes)

- NZTA is a multi-modal transport agency and should be looking at its transport network and putting forward projects that will address FIRST the highest needs mode - walking, cycling and public transport.
- The NZTA proposals and in particular the expected congestion north of Grenada North needs to be considered alongside wider investments planned in public transport which would have a significant impact on public transport patronage and a reduction in car journeys in this area.
- It is not desirable to remove all congestion, some is good as it creates a pressure to use more public transport.
- So please as you spend my taxpayer money consider this: Is another highway what we, as Wellingtonians, really need? How about upgrading, and increasing the capacity of our public transport options instead? NZTA should be further encouraging transport firms to ship long distance loads via rail, not road. Rail is a more efficient and cost effective mode of transport, especially considering the ever increasing cost of transportation fuel
- Consideration must be given to the impact of significantly increased road capacity as part of this project. Providing additional north-south capacity may effectively undermine efforts to get people to use public transport in peak times.
- Increase rail capacity alongside SH1 was 60% funded by NZTA. Funding rail on one hand which would have had modelling completed to move forward on and also at the same time saying that modelling shows traffic will increase despite fairly stable population numbers is contradictory. The projections for the rail transport indicates an increase of 53% in peak times, surely the same peak times that it is stated the motorway needs to be widened to allow for…

Rail

- With rising fuel costs in the future rail will become a more attractive option.
- I suggest spending the money on a light rail network around Wellington City that makes for better continuous links and makes it easier for people to leave their cars at home.

- A much more cost effective solution for traffic reduction and a more ecological solution would be to spend some of the proposed cost on greatly improving & increasing the parking at all of the stations along SH1 & SH2.
- Transport companies such as Toll and Mainfreight, are using rail more now.
- The money from P2G Link Road would be better spent on upgrading the railway network.
- I believe that the money for this proposed project could be put to better use by further improving Wellington's bus and train networks.
- Public Transport initiatives following the substantial rail network overall and upgrade, along with integrated transport tariffs and bus renewals will see continued growth in public transport patronage.
- Consider the considerable investment in rail travel that has been made recently and ask why roading schemes that undermine that investment are being made

Greater Wellington wider transport plans.

- How does the proposal work in with GW public transport plans?
- GW plans for increasing rail patronage need to be considered

13.39 State Highway 2 (representative quotes)

- The removal of the kink under the road and the single lane on ramp would seem to have the potential to solve most of the problems.
- Improvements should also be made to SH2, an extra lane from Ngauranga to the Maungaraki interchange, removal of the lights at Melling, Avalon, and Haywards Hill.
- Consider that the upgrading of SH2 from Petone to Ngauranga to be of more importance than this Link Road.
- I also note that a large proportion of the hold ups on SH2 are caused by traffic accidents and that these delays will continue while SH2 is limited in width.

13.40 State Highway 58 (representative quotes)

SH58 being a priority

- The most effective use of this investment would be to upgrade SH8 (Haywards Hill) to a motor way standard (dual lanes separated grade) and link it to the Transmission Gully Motorway, thus providing access to Johnsonville and Tawa.
- I think the Haywards hill should be upgraded and no new road built.
- Improvements would entail, at the least, widening the Haywards Hill to 4 lane and probably taking 20 metres off the crest of the hill as it is straightened. The road probably then needs to be widened to 3 or 4 lanes as far as the house storage area near the top of an existing three lane stretch of road.
- use the money saved by not building option D to:
    - widen SH58 to a 4 lane road
    - build a full interchange on SH2 to SH58 at Haywards instead

Resilience of SH58

- SH58 should be the primary commercial route and main route of resilience
- The volume of SH58 is going to increase already when Transmission Gully is completed.
- It is also has far less risk than the proposed road to the threat of a significant earthquake given that the new road is planned to be on top of, or very near a known fault line.
- As far as keeping Wellington and the Hutt Valley open for business after a major earthquake and/or Tsunami it would be optimal to free up State Highways 2 and 58.

- Neither Option C nor D provides any significant enhanced regional network-resilience for the northern suburbs reliant on SH1. The best traffic (network) resilience is provided by options A and B. The best resilience option for the Hutt is to improve SH58.
- Most of SH58 is quite low risk for earthquake damage. There is one high risk section which lies over Haywards Hill, up to the interchange with SH2.
- SH58 has a low earthquake damage risk other than slope failure at its junction with SH2.
- SH58 is an existing road, is well separated from the Transmission Gully route, is an easy slope for HCVs, and is presently being upgraded for safety reasons. As such, it can be argued that the best option for improving 'resilience' is to plan to further upgrade SH 58 using money identified for the Takapu Valley Motorway and make it the major alternative route to the northwest of Wellington. That would provide three geographically well separated routes into and out of Wellington - the present coastal route, Transmission Gully and SH58.

Direct route

- SH58 being more direct northbound route for much of the Hutt Valley.
- SH58 is the appropriate option for people wishing to drive between Porirua City and the Hutt
- NZTA's spiel talks about improving connectivity between the Hutt and Porirua. However, SH 58 fills this function from the Hutt Valley at present and with work to further upgrade it, it would then be a far better option than the proposed Link road.
- The proposed Link Road in fact would really only service traffic from round Petone and Seaview. SH58 is the option traffic currently takes to avoid congestion on SH2.
- We would prefer upgrading of SH58 as it gives better access to the both Upper and Lower Hutt Valley.
- Upgrade SH58 as the primary Hutt access road from/to Transmission Gulley
- The construction of Transmission Gully will shortly commence and will push more traffic, flowing between the Hutt Valley and the Kapiti coast or further north, to use the SH58 route.
- The movement of the main North - South trunk road eastwards changes the traffic dynamics. Critically, the distance Judgeford to Petone is about the same either via SH58 or the new Petone to Grenada link. By definition then, everything north of Petone in the Hutt valley, which is everything, will have a shorter journey by taking SH58 and the Haywards.
- The most efficient route for a truck travelling from Petone to the north (Paekarkariki and beyond) after Transmission Gully is completed is to take SH2, to SH58, to Transmission Gully.

Safety

- SH58 needs investment before Transmission Gully is opened as there will be a lot more traffic after this.
- Not improving SH58 will result in more deaths and serious injuries.
- There is also the safety issues of SH58. It is a known blackspot, with fatalities and injuries too common. For this reason alone SH58 should be a priority for improvement.
- If traffic levels on SH58 increase, the probability of more serious or fatal accidents also increases (probably nonlinearly with traffic volume).
- Not widening SH1 North of Grenada might cause delays due to an increase in future traffic volume in a few decades time. Not improving SH58 will result in more deaths and serious injuries. The probability of more deaths is grim statistics.

Costs

- I believe the cost would be no more than the cost of proposed Tawa options C or D.

- The money saved not implementing Options C and D can be spent widening SH58 and making this a resilient route out of the Hutt Valley.
- Take the money from not widening SH1 or building a motorway up Takapu valley and improve SH58. It will have benefits for the Hutt (resilience, travel times, economics), and may prove an invaluable backup for handling traffic flows during the P2G construction.
- An upgraded SH58 will provide better value for money.

Gradient and distances

- The SH2 and SH58 route has far easier gradients than the proposed Link Road.
- Traffic from the Hutt Valley heading north should be directed onto Transmission Gully via SH2 and SH58. The SH2/58 route is more straightforward with less climb than P2G and is likely to be more attractive to heavy vehicles in any case.
- SH2/SH58 has a direct link onto Transmission Gully at Judgeford. Hutt Valley traffic, especially heavy traffic, going north will use this road north because of its more gentle gradient.
- Option D predicts a daily traffic volume of 7,500 vpd on the Takapu Valley highway. I question if this number is even close to realistic. Because of the 1-way interchanges with TG, this road can only effectively service traffic to or from the north (north of Judgeford) going directly to Petone (not points further north in the Hutt). And as it has been demonstrated earlier, much of the north- Hutt traffic will find SH58 a more efficient route.
- Routing traffic over SH2 and then SH58 to the new Pauatahanui-Transmission Gully I/C is the same distance (19km) as P2G and then Option D through to Transmission Gully.
- It's the same distance to the SH58/Transmission Gully interchange as going via P2G and Option D, but it only has a 6.5% gradient as opposed to 9% on P2G. Further, SH58 only has a maximum height of 166 metres, as opposed to 290m on P2G.
- The distance from the Petone area to Judgeford via SH 2 and SH 58 is about 19 kilometres and the distance from the Petone area to Judgeford via the proposed P2G route and the proposed Takapu Valley Motorway is also about 19 kilometres. However, the P2G route climbs almost 300 metres at about a 9% slope with a further long climb of about 4% required up the proposed Takapu Valley Motorway, while the only major climb on the SH 2 - SH 58 route is to about 160 metres with a 6% slope.

13.41 Process issues (representative quotes)

- Options C and D were presented as binary alternatives, in a clear attempt to divide the community. a. This has caused disruption and disharmony in an otherwise peaceful community, with neighbours turning on each other, out of fear that they will end up with the motorway in their backyard. b. Engendering an "us versus them" approach is clearly favourable to NZTA, as it turns the "option selection" process into nothing more than a popularity contest (that is subsequently won by the best resourced or best represented party) and leaves NZTA free to proceed with their plans.

Appendix B Brochure

(Available on Project website)

Petone to Grenada Link Road

Issue 01
February 2014

We are considering a potential new transport link between Tawa/Porirua and the Hutt Valley to improve travel on two of Wellington's main highways and to resolve some critical issues that affect both day-to-day travel and our ability to manage major events.

The Petone to Grenada Link Road (Link Road) has been talked about for many years. It's been investigated most recently as part of the Ngauranga Triangle Strategy Study and included in the 2011 Hutt Corridor Plan. The diagram on this page shows the existing route travelled and the potential new route options being considered.

Over the past year we have been looking at the benefits of the Link Road more closely. Not only does it have the ability to reduce congestion on State Highway 2 (SH2) and State Highway 1 (SH1), it also has the ability to:

- Make peak morning journeys between the Hutt and Porirua around 10 minutes faster and 7km shorter
- Provide another route to/from the Hutt Valley when SH2 is blocked or Wellington City when SH1 is blocked
- Support better public transport access (particularly for buses) to/from Wellington, Porirua and the Hutt Valley by improving traffic flow and creating the opportunity for new routes
- Support more walking and cycling opportunities, particularly if combined with the Wellington to Hutt Valley Walking and Cycling Link
- Make travel times on SH1 and SH2 more reliable
- Open up future residential or business growth opportunities by making Porirua, Wellington and the Hutt Valley better connected.

Last year we considered the key issues and talked with our partners at Hutt City Council and Wellington City Council, as well as other key stakeholders, before considering potential route options in more detail. The implications for future land use in the region was noted as a key consideration. Discussions on land use opportunities will be lead by the local authorities.

Work has now reached the point where we want to share our ideas with you and get your views before making any decisions about the options we have developed.

This newsletter explains the key issues, outlines the proposals we have developed so far and asks questions about different aspects of the options we are considering. It also provides some information on how the Link Road may integrate with the Wellington to Hutt Valley Walking and Cycling Link proposed along SH2.

Please take some time to read the newsletter and familiarise yourself with the information, then come along to find out more about the Link Road at one of our information days in February. Members of the team will be on hand to discuss our proposals. You'll find details about information day dates and locations on the back page of this newsletter.

The importance of the Link Road

Transport in the Hutt Valley and through the Ngauranga Gorge plays an important role in our everyday lives. These corridors support public transport links, walking and cycling, freight movement and community travel along Wellington's two primary highway routes. The SH2 route in particular is vulnerable as it is affected by daily congestion in peak hours, unreliable journey times, delays and a lengthy detour via State Highway 58 (SH58) if the road is closed or blocked.

For SH1 through Ngauranga Gorge, the Link Road provides a valuable opportunity to reduce congestion and support the efficiency of the Wellington Northern Corridor between Ngauranga and the SH1 connection with Transmission Gully.

Improving travel between Porirua and the Hutt Valley is important because the current issues create personal, business and economic problems for the region. It limits our potential for growth, our ability to get goods and services to market quickly and easily, causes people difficulty when travelling for work, education, health or family reasons and can isolate parts of Wellington in bad storms, earthquakes and when sea levels rise.

We want to resolve these issues and improve safety and efficiency for people travelling between the Hutt Valley and Porirua. This will ensure there is an alternate route for people to take if the road is blocked or closed, which is important to the transport network's resilience. It's also vital to improve freight connections, which will help support economic growth and productivity in the Wellington region. This is particularly relevant for the Link Road given its support for the industrial areas in Porirua and Lower Hutt, including the port in Seaview.

Overall, the Link Road represents a substantial investment in the region's transport requirements. It benefits all road users, supports public transport and may provide more walking and cycling opportunities if combined with the Wellington to Hutt Valley Walking and Cycling Link. The Link Road can also support other projects around the city by maintaining efficient transport links to and from the three Central Business Districts in Lower Hutt, Wellington and Porirua, as well as connections to Upper Hutt and Kapiti.

Help us make the decisions

After considering a number of different options, we need your help to make some key decisions about the Link Road. Your views will be used to:

- refine our proposals
- help us determine a final route
- understand what connections you feel the Link Road needs, and
- consider potential ways to get it built sooner.

You can help us by giving feedback at one of our information days in February, on our website or in writing. Our contact details are on the back page of this newsletter.

If you want any help to understand the issues and what we're trying to achieve, you can talk to us directly by calling our freephone number.

At the end of the month, comments will be summarised into a report that we will make publicly available later this year.

The Link Road proposal

The Link Road will generally be a new four-lane road with two lanes in each direction divided by a barrier down the middle. The road is likely to be six lanes where the road is very steep at Petone so faster moving vehicles are not held up by slow moving trucks. If Option D is preferred, only two lanes would be required between Grenada and the proposed Takapu Interchange on Transmission Gully.

At the eastern end, the road begins at Petone, goes over the hill and connects with SH1 at Tawa, the Link Road's western end. It includes a new interchange at Petone, which will provide significant congestion relief for the problematic SH2/Petone Esplanade merge. It also includes the potential to connect the new Link Road with Transmission Gully as well as SH1 at Tawa. This will provide quicker and more direct northbound travel from the Hutt Valley and northern Wellington suburbs.

Because of the local terrain the new road has to travel over, the incline will be relatively steep (similar to the gradient of Ngauranga Gorge). This requires us to excavate the hill, producing around eight million cubic metres of soil and rock, which is equivalent to almost eight filled Westpac Stadiums. We could use this material for other improvements, like the Wellington to Hutt Valley Walking and Cycling Link.

The Link Road itself includes two distinct sections:

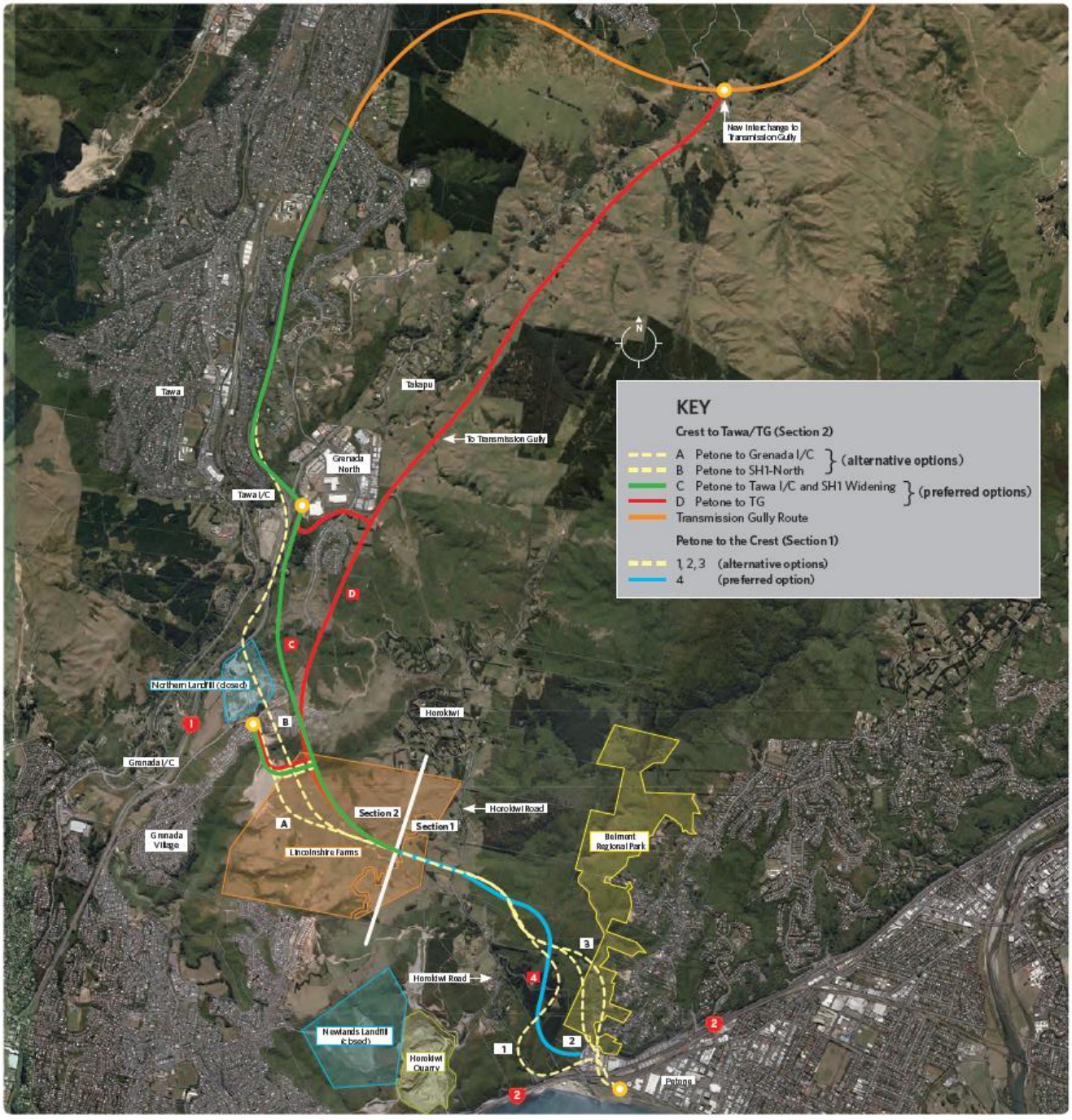
- Petone to the Crest of the Wellington Escarpment, and
- The Crest of the Wellington Escarpment to Tawa or Transmission Gully.

More details on the proposals for these two sections are on pages 4 and 5.

The route options

We considered a shortlist of four different options for the Link Road and a further four options for the section that includes the Petone interchange. These options were evaluated to consider criteria such as ecology, archaeology, cost, resilience and landscape/visual/recreational implications. A map of the options is shown below while more information is available on pages 4 and 5.

Once you have reviewed this information, we would like your comments on a number of questions. This will help us refine our proposals and select a preferred route that we will investigate in more detail.



Options between Petone and the Crest of the Wellington Escarpment

We considered four options between Petone and the crest of the Wellington escarpment.

Through our option evaluations we identified Option 4 as our preference because it:

- avoids the Belmont Regional Park, and
- improves our resilience to earthquakes.

Because of the steepness of the route, this section of the road is likely to be six lanes wide, providing two 'crawler lanes' for slow moving vehicles. The road will be in a cutting on the hill.

A key feature is a new Petone interchange. This is likely to be similar in design to the nearby Dowse interchange, an elevated structure with on and off-ramps and SH2 running underneath. This interchange also marks the start of the new Link Road which will travel up over the western hillside. As well as providing better vehicle travel, the interchange could be used for improving walking and cycling connections between the Petone foreshore and Belmont Regional Park.

An image of a potential Petone interchange is shown on page 5. We still need to do more work to determine how this interchange could look.

We also need to consider how the Horokiwi community will be connected to the new Link Road. One option is to provide a new connection to the Link Road and close the current SH2 connection. Another is to keep the SH2 access and not provide a new connection from Horokiwi.

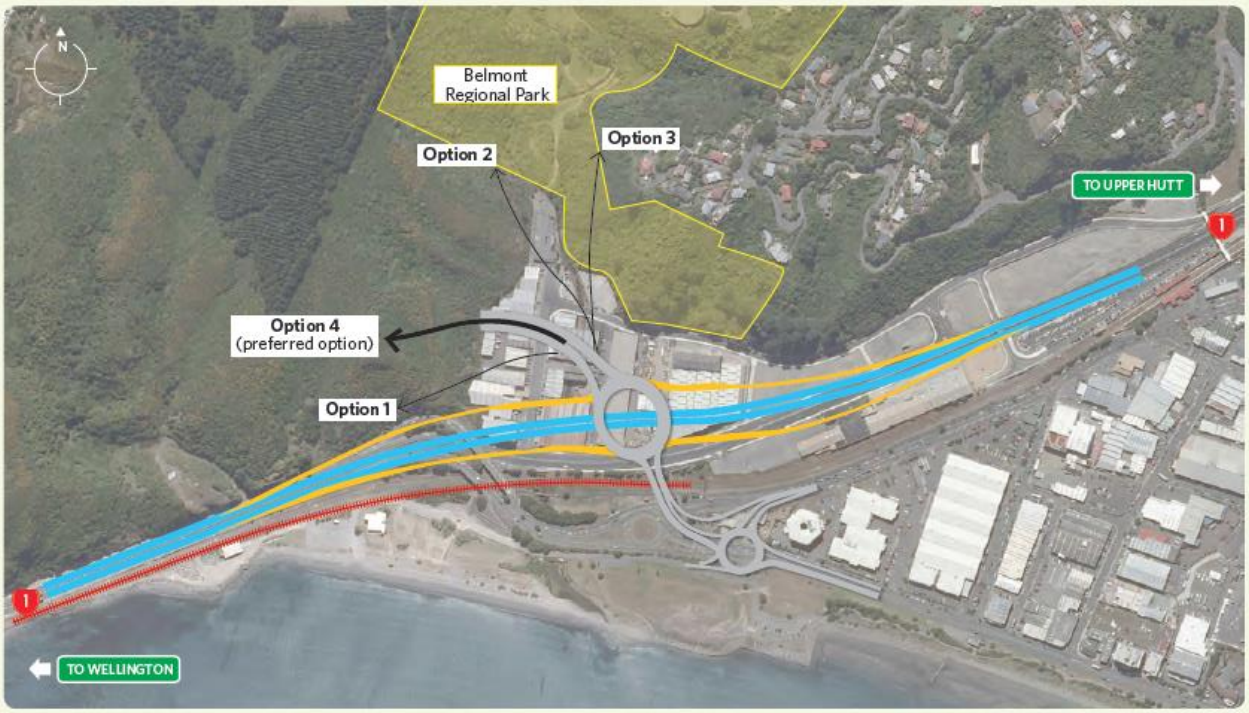
We would like your feedback on these options.

What do you think the benefits are of our preferred option for this section?

What do you think the benefits are of providing a pedestrian and cycle link between Belmont Regional Park and Petone Foreshore?

Should Horokiwi be connected to the highway network by the current SH2 connection or a new connection with the Link Road?

Is there anything else you want us to know regarding this section?



Potential layout of a new Petone interchange

Options between the Crest of the Wellington Escarpment and Tawa/Transmission Gully

For this section we also considered four options, narrowing these to two preferred options.

Both are feasible and we would like your views on their respective benefits.

We prefer these options because they make us more resilient to earthquakes, are more cost effective than the other options we considered, and connect with the Grenada and Tawa interchanges, which provides people with more travel options. Option D also connects with Transmission Gully, providing people with more travel flexibility.

Option C connects to Grenada and Tawa (as previously proposed) and would include widening SH1 to six lanes between Grenada and Linden, affecting properties alongside the highway.

Option D provides connections to Grenada and Tawa and provides a two lane connection with Transmission Gully, affecting different properties. However,

this option may defer the need to upgrade SH1 between Tawa and Linden. It also keeps the road at a consistent height, which is more efficient for long-distance travel because road users do not have to climb or descend at Grenada.

What do you think the benefits are of Option C relative to Option D?

Is there anything else you want us to consider?

How this fits in the wider network

We completed three transport studies to help inform our decisions on the Link Road. These studies considered the benefits of improvements to the existing highway routes of SH2 and SH58 and the potential of creating a new Seaview Link. A brief summary of these studies is listed below.

SH2 Petone to Ngauranga Six Laning

This study looked at the potential widening of SH2 between Petone and the Ngauranga Interchange, including potentially making the highway six lanes wide (three lanes in either direction). While widening this section of SH2 (via seaward reclamation) is feasible, it would be expensive. A better investment focus for the short to medium-term is a new Petone Interchange, which, when combined with our Ngauranga to Aotea Quay SH1 Improvements, will significantly improve congestion and travel times.

SH58 Efficiency Improvements

This study looked at SH58 efficiency upgrades from the future Pauatahanui Interchange (created by Transmission Gully) to the Haywards intersection with SH2. Efficiency upgrades to SH58 are not a suitable alternative to the new Link Road as they would deliver significantly less transport and economic benefits. With the new Link Road in place there will be no need to consider efficiency improvements to SH58 for quite some time. There is, however, a need to improve the safety of SH58. We are currently investigating safety improvements with a range of possible options being considered, including guardrails, realigning the road, better road marking, median wire rope barriers and widening the road.

Seaview to SH2 Transport Link

In conjunction with the Hutt City Council, we investigated improving the transport link between Seaview and SH2. We looked at a variety of options, including upgrades to the rail network and identified that roading upgrades were feasible, generating positive transport and economic benefits. We also identified that the new Link Road would not trigger the need for any improvements to the road network. The Council is now considering the outcomes of this study and "next steps".

Tolling

An important issue we need to consider for the Link Road is how to fund its construction. At the moment, construction is planned from around 2019, but this would be subject to funding being available at that time.

One option we are considering is tolling the new Link Road. This could enable it to be constructed earlier, realising the transport and wider economic benefits sooner.

Based on some early assessments, we believe this road could be a good tolling prospect because of the significant travel time savings and high traffic volumes expected to use it, particularly at peak times.

Before tolling is considered any further, we need to consult all the affected communities and stakeholders more widely on a detailed proposal that would include:

- The likely operational costs and economic benefits/impacts of tolling,
- Potential impacts that tolling infrastructure (ie location of gantries) would have on the proposed road alignment, connections and interchanges, and
- Possible toll prices.

At this early stage, the key questions we would like your thoughts on about tolling as an option are:

Would you support a toll on the Link Road if it enables building it sooner?

What are your thoughts on the benefits of tolling the Link Road in order to help realise its benefits for the region?

How the Link Road connects with walking and cycling

The Wellington to Hutt Valley Walking and Cycling Link

In parallel with our Link Road investigations, we are investigating options to deliver a safe and efficient route for cyclists and pedestrians between Ngauranga and Petone along SH2.

The Wellington to Hutt Valley Walking and Cycling Link aims to 'close the gap' along the existing cycleway on SH2, improve the current facilities for pedestrians and cyclists and encourage more people to walk, run or cycle between the Hutt Valley and Wellington.

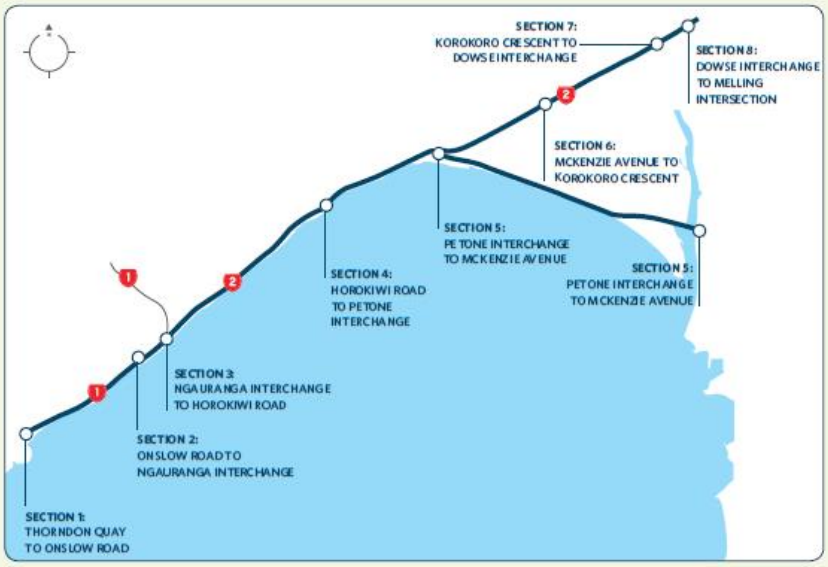
We are working in partnership with Wellington City and Hutt City Councils on this proposal to ensure that the Walking and Cycling Link effectively connects with each council's facilities at either end of the highway.

Since the end of last year, we have been asking key stakeholders, interested user groups and the public what we could do to improve walking and cycling between Wellington and Lower Hutt. So far, we have come up with two preferred options, listed below.

Option 1 – upgrade the existing cycleway to provide a 3m wide dedicated path from Petone to Ngauranga with connections to other existing walking and cycling paths. This option would require us to reclaim a minor amount of the shoreline at Petone. We expect this option could cost between $12 and $16 million.

Option 2 – a new 3m cycleway on the seaward side of the rail corridor with new connections to existing walking and cycling paths at Petone and Ngauranga. This option would require us to reclaim a significant amount of the shoreline. We expect this option could cost between $36 and $48 million.

How to fund the options and the cost differences between the two will be key decision making criteria. Option 1 costs less and would be a similar amount to what we have previously anticipated. Option 2 is more expensive. However, its costs might be reduced if we were to use the excess soil and rock to be taken from the nearby hillsides for construction of the Link Road. This would mean that the timing of the two proposals would need to be considered further as construction of the Link Road is currently scheduled for 2019.



More information on these proposals will be available at the 22 February information day. A separate newsletter has also been issued and is available on our website.

If you haven't already taken part in our survey, please fill it out online before the end of February at **www.nzta.govt.nz/w2hvlink** or send us an email to **w2hvlink@nzta.govt.nz**.

We will be summarising this feedback and letting you know what our investigations have concluded later this year.

What do you believe are the benefits of Option 1 compared with Option 2?

Which is your preferred option?

Does your preference change based on its construction timeframe?

Will an improved walking and cycling link encourage you to walk or cycle to work?

Location and time of Information Days

Come and see us at one of our Public Information Days. We will have more information available about the Link Road and team members will be on hand to take your feedback or talk to you about your ideas and concerns. Information about the Wellington to Hutt Valley Walking and Cycling Link will be available at the first information day. The dates are:

When	**Saturday 22 February 2014**
Where	**Opus Research and Training Facility**
	33 The Esplanade, Petone
Time	**10am–3pm**
or	
When	**Wednesday 26 February 2014**
Where	**Linden Community Centre, Tawa**
Time	**3pm–8pm**

We're providing a children's play area so please bring the kids along!

If you can't join us at information days, Link Road information and questionnaires will be available at your local library:

Petone: Britannia Street, Petone

Johnsonville: 5 Broderick Road, Johnsonville

Tawa: 158 Main Road (Cnr Cambridge Street and Main Road), Tawa

Porirua: 17 Parumoana Street, Porirua

You can get more information by visiting **www.nzta.govt.nz/petone-grenada-link-road** (you can fill in a questionnaire there too).

Freephone: 0508 P2G INFO

Emailing: petone2grenada@nzta.govt.nz

Writing: Petone to Grenada Link Road Team
Freepost 225938
PO Box 5084, Thorndon
Wellington 6145

Next steps

We welcome your feedback as it will help us refine our plans for the Link Road and will inform our next steps for the Wellington to Hutt Valley Walking and Cycling Link.

Please either visit us at one of our information days in February or send us your feedback before the end of March via our website or email address. We will summarise everyone's feedback in a report that we will make publicly available later in the year. Your personal details will remain private.

We expect to refine our proposals further and make decisions on the Link Road at the end of the year or in early 2015. We will then complete a scheme assessment report and consult with the community on our proposals. This will include discussions about how we mitigate potential construction and operation impacts. You can expect to hear about these from 2015.

The Link Road is currently scheduled to begin construction around 2019. This timing will depend on when consents are granted and how we agree to fund construction.

Indicative project timeline

Early 2013	Link Road work starts
2013/2014	Options investigated
Early 2014	Public consultation on proposals
Late 2014	Preferred option confirmed
Mid 2015	Seek RMA approvals
2016-2018	Detailed design
2019-2023	Construction (subject to funding)

Contact us

For the Petone to Grenada Link Road:

Website: **www.nzta.govt.nz/petone-grenada-link-road**

Email: **petone2grenada@nzta.govt.nz**

Freephone: **0508 P2G INFO (0508 724 4636)**

Freepost: **Petone to Grenada Link Road Team**
Freepost 225938
PO Box 5084, Thorndon
Wellington 6145

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Appendix C Feedback Form

(Available on Project website)

Petone to Grenada Link Road - feedback form

Consultation

Note: Fields marked with (*) are mandatory.

Name*

Postal address*

City/Town*

Email address*

Organisation

Submissions are public information. Please indicate if your comments are commercially sensitive or, for some other reason, you consider they should not be disclosed. This field is optional.

Your comments – You can answer as many or as few questions as you wish.

Petone Interchange

What do you think about the Petone Interchange options?

How often do you visit Belmont Regional Park and how do you access it?

What do you think the benefits are of providing a pedestrian and cycle link between Belmont Regional Park and Petone Foreshore?

Petone to the Crest of the Wellington Escarpment

What do you think the benefits are of our preferred option for this section?

NZ TRANSPORT AGENCY WAKA KOTAHI

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Petone to the Crest of the Wellington Escarpment continued

Should Horokiwi be connected to the highway network by the current SH2 connections or a new connection with the Link Road?

What do you think of the suggestions we've made for the excess soil and rock we will have?

Is there anything else you want us to know regarding this section?

Crest of the Wellington Escarpment to Tawa/Transmission Gully

What do you think the benefits are of Option C relative to Option D?

Is there anything else you want us to consider?

NZ TRANSPORT AGENCY WAKA KOTAHI

New Zealand Government

Petone to Grenada Link Road - feedback form

Tolling

Would you support a toll on the Link Road if it meant building it sooner?

What are your thoughts on the benefits of tolling the Link Road in order to help realise its benefits for the region?

What else would you like to know about tolling?

Any other comments?

Please indicate whether you prefer to be contacted by ☐ **post** or ☐ **email**.

Thank you for helping us develop our plans for the Petone to Grenada Link Road.

Please return this form by:

Email: petone2grenada@nzta.govt.nz

Freepost: Petone to Grenada Link Road Team
Freepost 225938
PO Box 5084, Thorndon
Wellington 6145

NZ TRANSPORT AGENCY WAKA KOTAHI

New Zealand Government

Appendix D Media Statements

(Available on Project website)

Keeping the Hutt connected – Public info day tomorrow

21 Feb 2014 05:01pm | NZ Transport Agency: Central region

The NZ Transport Agency is encouraging the public to attend public information days to share proposals for a new link road between Petone and Grenada to better connect the Hutt Valley with Porirua and Tawa.

The first information day, being held tomorrow in Petone, will also provide information on proposals for a new dedicated cycle and pedestrian link between the Hutt Valley and Wellington.

Transport Agency Wellington highways manager Rod James says the information days, being held tomorrow and Wednesday, will give people a chance to learn more about the projects, and talk directly with our team.

"The Petone to Grenada link, if built, would provide a direct connection between the Hutt Valley and Porirua and Tawa, providing for shorter, safer journeys, and transforming how people and freight travel between these centres."

"While this proposed link would provide major transport benefits for the region, the options being considered would also have some major effects on people and properties along the proposed routes."

"We want to ensure the public understands both the pros and cons of these proposals. This is a valuable opportunity for the community to influence how we develop these proposals to help us make sure we get it right.

Mr James says the Open Day will also give the public to look at options for a new dedicated cycleway and walkway between Hutt Valley and Wellington.

"Together these projects have the potential to really change how people get around, by providing safer, more flexible, and far more user friendly options for travelling to and from the Hutt Valley."

"We want to promote transport choice by making walking and cycling safer and more attractive between Wellington and the Hutt Valley, and we're keen to share our early proposals with the public."

"These information days will give people the chance to talk directly with project teams about the proposals, how they might benefit you, how they might affect you, and how you can have your say."

"We'll have information boards, animated video and maps to illustrate the options, and an area for kids to play."

The Public Information days will be held at:

Saturday, 22 February 2014 – 10am – 3pm
Opus Research and Training Facility
33 The Esplanade, Petone

Wednesday, 26 February 2014 – 3pm – 8pm
Linden Social Centre, 10 Linden Avenue, Tawa

Mr James says that if people can't make it then they can always contact the project teams directly:

Petone to Grenada:
Email **petone2grenada@nzta.govt.nz** or call us on Freephone 0508 P2G INFO (0508 724 4636)

Wellington to Hutt Valley Walking and Cycling Link:
Email **w2hvlink@nzta.govt.nz** or call us on Freephone 0508 W2HV LINK (0508 9248 5465)

For more information please contact:

Anthony Frith
Media Manager - Central

T: 04 894 5251
M: 027 213 7617
E: **anthony.frith@nzta.govt.nz**

The NZ Transport Agency works to create transport solutions for all New Zealanders - from helping new drivers earn their licences, to leading safety campaigns to investing in public transport, state highways and local roads.

More time for community to have its say on Petone to Grenada

21 Mar 2014 02:13pm | NZ Transport Agency: Central region

The value of positive community engagement is at the heart of the NZ Transport Agency's decision to extend its submissions period for the Petone to Grenada Link Road for a further three weeks.

Wellington Highways Manager Rod James says the Transport Agency originally intended to close submissions at the end of March on the Link Road proposals after releasing information in early February. However, following community requests for more time, the Agency has decided to extend the submissions period to 17 April, just prior to Easter.

"We made this decision because we're committed to positive community engagement, and we are listening. The community have indicated that more time will help them make informed and thoughtful submissions, and we think extending the submissions period is in the best interests of everyone," Mr James says.

"We've seen fantastically constructive community involvement, and we want to let this momentum continue. We want people to know that their voice counts, and we're eager to give the public ample opportunity to help guide our development of this important project."

As well as the submissions period being extended, the Transport Agency is taking further steps to ensure people from the Tawa area, affected by two potential options for the route to connect with the state highway, are well informed.

"This community have asked us to re-issue our newsletter to the Tawa/Linden/Redwood area as there were some people who didn't receive it last month. We've agreed to this and it will arrive in mailboxes from later this week."

Mr James says the Transport Agency will continue to work with the various community boards involved with the Link Road proposals.

"This means that we will have more workshops or meetings with the community groups involved and will work with them on developing and refining our plans."

He says the level of response to the Link Road proposals had been encouraging so far with nearly 100 submissions received since consultation began.

"This feedback is very useful in helping us to understand what people need to know, what they like and what our next steps will be. When combined with the more than 600 people who came to our information days, it shows us there's a lot of interest and willingness to take part in the process, which is what we need.

Mr James urged others who have not yet made a submission to do so.

"This is your chance to be involved in shaping the outcome. The more that people get involved, the better we can make the project. Consultation is open to anyone of any age and it's great to see feedback coming from some of the students in the Tawa area, who would be the people using the road in future."

Once the submissions period has closed the Transport Agency will prepare a report summarising all the feedback it has received. This report will be made publicly available later in the year. A decision on the Link Road is expected at the end of the year and, depending on approvals and funding, could begin construction from 2019.

For more information check the Link Road website at **www.nzta.govt.nz/petone-grenada-link-road**.

For more information please contact:

Anthony Frith
Media Manager – Central
NZ Transport Agency
T +64 4 894 5251
M 64 27 213 7617
E **anthony.frith@nzta.govt.nz**

The NZ Transport Agency works to create transport solutions for all New Zealanders – from helping new drivers earn their licences, to leading safety campaigns to investing in public transport, state highways and local roads. Follow us on twitter @nzta_news.

15 May 2014 | NZ Transport Agency MEDIA RELEASE

Community feedback pivotal as region works together on Petone to Grenada Link Road

Feedback from the public will be pivotal as the region works together to develop the Petone to Grenada Link Road.

The Wellington Regional Transport Committee (RTC) agreed on Tuesday that the CEOs of all councils in the region will work with the NZ Transport Agency to oversee the approach to designing the improved transport links between Hutt Valley and Porirua.

Transport Agency Regional Director Jenny Chetwynd says the community's response to public consultation was heartening and has attracted over 1,400 submissions.

"Fourteen hundred submissions is a phenomenal response, and we can't stress enough the valuable role that local insight will play in guiding the development of the project. We're thrilled that the community have shown so much interest in the proposals."

Ms Chetwynd says submissions have continued to roll in, and it was pleasing that the submissions deadline had been extended.

The collation of feedback is in its early stages but some key themes have been identified from the submissions.

Ms Chetwynd says most submissions appear to be supportive of a link road in principle, but a number of concerns have been raised relating to a range of issues.

"Enabling safer, quicker, more reliable journeys between Porirua/Tawa and Hutt Valley appeals to a high number of submitters, and now the question is how we go about it."

"While there is strong support for a Link Road, many residents have questioned the need for a Takapu Valley link or the widening of State Highway 1 at Tawa, and raised concerns about loss of land affecting homes and community facilities.

"We're very conscious of community concerns about property loss and the impact it will have on the lives of people. We don't make decisions about property acquisition lightly, and we are actively exploring all possibilities with our regional partners to keep property impacts to an absolute minimum.

"We are also committed to improving the safety of SH58, which remains a valuable link to the north."

Regional Transport Committee Chair Fran Wilde says she understands that submitters have shared broad agreement that resilience to disruptive incidents is crucial, and there is wide recognition that in the event of a major crash or earthquake, a Link Road would provide a valuable alternative route.

Among other matters raised in submissions were:

- Support for improvements to SH58
- Broad agreement that the preferred route between Petone and the Crest is the best option
- Broad agreement that a Petone Interchange is required
- Concerns that more capacity is required at Tawa Interchange
- Concerns about access for Horokiwi residents
- Support for using the excess spoil (dirt and rock from earthworks) from Petone to Grenada to go towards a potential walking and cycling facility on the harbourside.

Submitters have also stressed the importance of supporting public transport, and Ms Wilde says the region will be exploring options to help manage or avoid forecast congestion on SH1.

Ms Chetwynd says numerous other issues have been raised in submissions, and those outlined here are not exhaustive or necessarily the 'top ranking' overall, but rather what has surfaced in the early stages of the assessment of feedback.

Where to from now?

Over the next few months, feedback will be collated and analysed. This feedback will be used by the steering committee to help inform, change and refine the Petone to Grenada proposals. A consultation report summarising submissions will be released in winter and a preferred route is expected to be released late this year.

Feedback and queries are welcome at any time, and people can contact the project team at petone2grenada@nzta.govt.nz or freephone 0508 P2G INFO (0508 724 4636)

For more information please contact:

Anthony Frith
Media Manager – Central
NZ Transport Agency

T: 04 894 5251
M: 027 213 7617
E: anthony.frith@nzta.govt.nz
W: www.nzta.govt.nz

Appendix E Open Day Material

(Available on Project website)

NZ TRANSPORT AGENCY
WAKA KOTAHI

Petone to Grenada Link Road

Welcome

We are considering a potential new transport link between Tawa/Porirua and the Hutt Valley to improve travel on two of Wellington's main highways and resolve some critical issues that affect both day-to-day travel and our ability to manage major events. Please take some time to read these boards, talk to a member of the team and familiarise yourself with the information before completing our comments form.

About the Petone to Grenada Link Road

The Petone to Grenada Link Road (Link Road) has been talked about for many years. It's been investigated most recently as part of the Ngauranga Triangle Strategy Study and included in the 2011 Hutt Corridor Plan. The diagram on this page shows the existing route travelled and the potential new route options being considered.

Over the past year we have been looking at the benefits of the Link Road more closely. Some of the benefits of the Link Road are to:

- Reduce congestion on State Highway 2 (SH2) and State Highway 1 (SH1) south of Linden
- Make peak morning journeys between the Hutt and Porirua around 10 minutes faster and 7km shorter
- Provide another route to/from the Hutt Valley when SH2 is blocked or Wellington City when SH1 is blocked
- Support better public transport access (particularly for buses) to/from Wellington, Porirua and the Hutt Valley by improving traffic flow and creating the opportunity for new routes
- Support more walking and cycling opportunities when combined with the Wellington to Hutt Valley Walking and Cycling Link
- Make travel times on SH1 and SH2 more reliable
- Open up future residential or business growth opportunities by making Porirua, Wellington and the Hutt Valley more accessible.

Last year we considered the key issues and talked with our partners at Hutt City Council, Wellington City Council and Greater Wellington Regional Council, as well as other key stakeholders, before considering potential route options in more detail. Future land use was also noted as a key consideration. Discussions on land use opportunities will be led by local authorities.

Work has now reached the point where we want to share our ideas with you and get your views before making any decisions about the options we have developed.

Help us refine our proposals

After considering a number of different options, we need your help to refine our proposals for the Link Road. Your views will be used to help us to determine a final route, understand what connections you feel it needs and consider potential ways to enable the Link Road being built sooner.

You can help us by giving feedback to one of our team members, by completing a comments form online or in writing and posting or emailing it to us. You're also welcome to call us on our freephone number **0508 P2G INFO** (**0508 724 4636**) to discuss any further issues you have.

Your comments will be summarised into a report that we will make publicly available later this year. This is likely to identify our preferred route and outline our next steps.

A simulated image of what the new Link Road could look like towards the Petone end of the route.

www.nzta.govt.nz/petone-grenada-link-road

New Zealand Government

The case for the new Link Road

Transport in the Hutt Valley and through the Ngauranga Gorge plays an important role in our everyday lives. These corridors support public transport links, walking and cycling, freight movement and community travel along Wellington's two primary highway routes.

Why we need it

State Highway 2 (SH2) is particularly vulnerable as it is affected by daily congestion in peak hours, unreliable journey times, delays and a lengthy detour via State Highway 58 (SH58) if the road is closed or blocked.

State Highway 1 (SH1) is also congested in the morning and afternoon peak periods – a situation which needs to be addressed to support the efficiency of the Wellington Northern Corridor between Ngauranga Gorge and the SH1 connection with Transmission Gully.

The link road is also needed because:

- Travel issues on SH1 and SH2 affect more than 3000 vehicles an hour in each direction creating personal, business and economic problems for the region
- Both SH1 and SH2 are reaching capacity during peak periods
- Improvements need to be made to ensure the transport network in Wellington does not limit our potential for growth, our ability to get goods and services to market quickly and easily, cause people difficulty when travelling for work, education, health or family reasons or isolate parts of Wellington in bad storms, earthquakes and when sea levels rise
- It provides a valuable opportunity to improve safety and efficiency for people travelling between the Hutt Valley and Porirua and ensure that there is an alternate route for people to take if the road is blocked or closed
- It's vital to improve freight connections to help support economic growth and productivity in the Wellington region
- By improving freight we make improvements that benefit everybody, as it allows food to be delivered to your local grocery store, delivers goods you've purchased to your home and provides companies with the ability to access markets more easily and make products more affordable.

Background

A number of previous studies have been carried out to consider developing a link road between SH1 and SH2. The first time it was identified appears to be in the 1975 Wellington Region Land Use and Transport Study. This was followed by the Greater Wellington Land Use and Transport Strategic Review indicating the route deserved further study in 1988 and resulted in the first detailed study of the link in 1991.

Further studies have included:

- SH1 Inland Route Review of Southern Sector – Petone to Grenada North Link 1991 (Works Consultancy Services)
- Petone to Grenada Link Study 1995 (BECA)
- Hutt Valley – Porirua Link Initial Appraisal of Possible Links Working Paper for Steering Committee Consideration 1996 (Works Consultancy Services)
- Hutt Valley – Porirua Road Link Study Feasibility Investigation Report 1997 (Opus)
- Ngauranga Triangle Strategy Study – Detailed Technical Report 2009 (SKM)
- Ngauranga Triangle Strategy Study – Petone to Grenada Link Road Project Feasibility Report 2010 (SKM).

A common link identified between the different studies has been the need to relieve congestion on SH1 and SH2 north of Ngauranga Gorge and improve regional connectivity between the Hutt Valley and areas north of Grenada.

We have drawn on information from all these studies, helping us to identify key issues and develop potential options. A variety of routes have been considered between Petone and Grenada, including a link to the former Transmission Gully route near Tawa, which was identified in the 1991 study.

Early studies proposed routes that travelled over the hill north from SH2 at Petone through the Korokoro Valley in Belmont Regional Park. The most recent study avoided this area by travelling over the hill west across the coastal escarpment of the Wellington fault from Petone at SH2. This study also proposed a full interchange at Petone, south facing ramps at its connection to SH1 at Tawa and a connection midway to provide access to the Lincolnshire Farm Development and Horokiwi Road.

Interesting historical fact

The general location of the route options we're suggesting for the new Link Road have historically been used for travel between the Hutt Valley and Porirua.

Our research has found that early European settlers in the district writing about how they travelled in the early part of the 19th century did so for the most part on well-used old Maori tracks.

In the 1880s, prominent Wellington settler James Coutts Crawford wrote about his journey from the Kapiti Coast to Port Nicholson following his arrival in New Zealand in late 1839.

"Passing Titahi Bay, and the pretty shores of Porirua, we entered the main bush, and travelled up the stream, in a line with whose course the present road stretches. We crossed and re-crossed the stream about seventy times, until at length the path ascended and led us over the summit of the range overlooking Korokoro. The whole distance traversed, with the exception of some few patches of cultivation at Porirua, was through dense and uncleared forest. ... The Hutt Valley presented a dense forest of gigantic trees, and a large pa was visible at Pitone. As we descended the hill, our advance was hindered by a mass of newly-felled forest, which was cleared and ready for burning off. Our escort now commenced firing guns to attract the attention of the fishermen; and as we descended the hill the canoes approached the shore, so that when we reached it, they were there to meet us."

(Coutts 1880: pp 27-28)

Elsdon Best also reports that many of the first journeys by Europeans through the district were made using "old Maori trails", the main one running over the hills from the Korokoro Stream to Tawa Flat and on to Porirua.

After the Petone settlement was removed and relocated to its current site of Wellington City, the track from Kaiwharawhara across Paarau hill was used more. This track joined with the Korokoro track at Takapu and then carried on to Porirua.

Best describes the Korokoro track as beginning on the south side of the Korokoro Stream, close to the mouth. It then ascended through bush up a steep hill and followed the ridge line to the Takapu Valley to the Kenepuru Stream and on to Porirua.

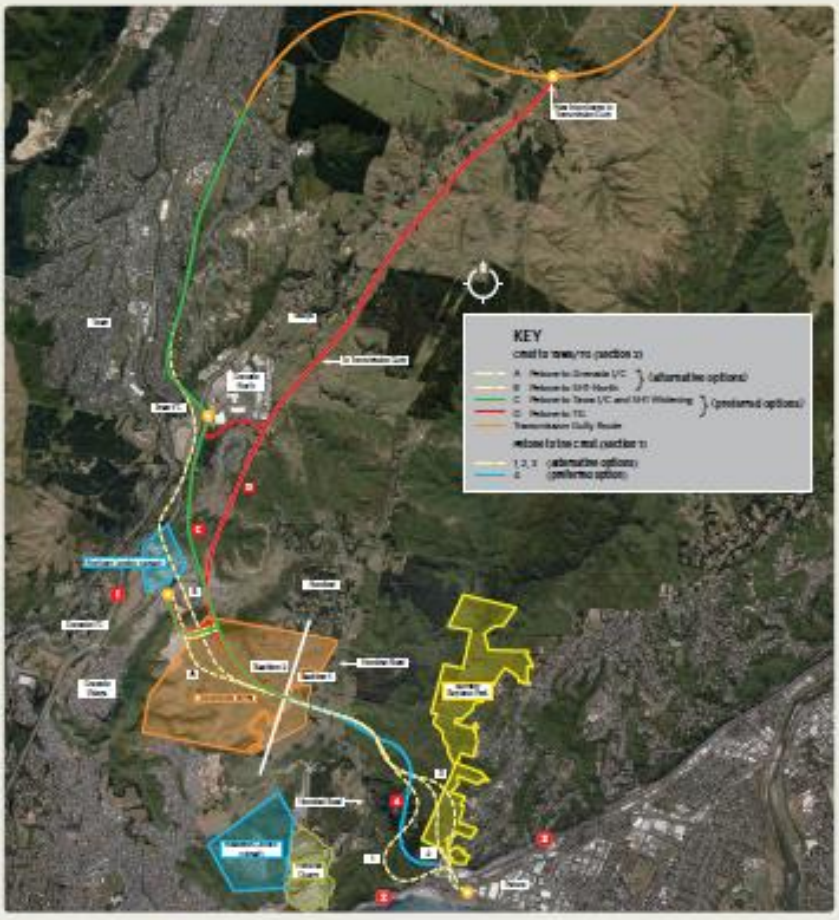
(Map from Hamer and Nicholls 1990:14)

www.nzta.govt.nz/petone-grenada-link-road

New Zealand Government

The Link Road proposal

The Link Road will generally be a new 80km/h four-lane road with two lanes in each direction divided by a barrier down the middle. The road is likely to be six lanes where the road is very steep at Petone so faster moving vehicles are not held up by slow moving trucks. If Option D is preferred, only two lanes would be required between Grenada North and the proposed Takapu Interchange on Transmission Gully.



Issues and constraints

In developing our options we have identified a number of issues and constraints that have informed our selection of routes, including:

- Ecological impacts (ie issues associated with proposed routes passing through open spaces and parks or crossing the Horokiwi Stream)
- Geotechnical issues associated with the rock structure
- Ecological and consenting issues with earthworks required through contaminated former landfill sites
- Topographical constraints regarding horizontal curves and gradients because of the steep and hilly terrain
- Land acquisition issues
- Visual impacts
- Other social concerns.

Route description

At the eastern end, the road begins at Petone, goes over the hill and connects with SH1 at Tawa, the Link Road's western end. It includes a new interchange at Petone, which will provide significant congestion relief for the problematic SH2/Petone Esplanade merge. It also includes the potential to connect the new Link Road with Transmission Gully as well as SH1 at Tawa. This will provide quicker and more direct northbound travel from the Hutt Valley and northern Wellington suburbs.

Because of the local terrain the new road has to travel over the incline will be relatively steep (similar to the gradient of Ngauranga Gorge). This requires us to excavate the hill, producing around eight million cubic metres of soil and rock, which is equivalent to almost eight filled Westpac Stadiums. We could use this material for other improvements, like the Wellington to Hutt Valley Walking and Cycling Link.

The Link Road itself includes two distinct sections:

- Petone to the Crest of the Wellington Escarpment, and
- The Crest of the Wellington Escarpment to Tawa or Transmission Gully.

Proposals on the two sections are more widely understood for the area between Petone and Grenada North as they were considered as part of the Ngauranga Triangle Study. As part of our investigations into the new Link Road, we have identified a need to respond to future traffic growth on SH1. This is needed because the Link Road will draw traffic away from the SH58 Haywards route and southbound traffic will instead travel along State Highway 1 between Porirua and Tawa en route to the new Link Road.

Given that the Link Road reduces journeys by approximately 7km, traffic modelling predicts that more capacity will be required either on SH1 north of Tawa or through a new link to Transmission Gully as road users take advantage of this shorter, more fuel-efficient route.

We know both options for the section between the Crest of the Escarpment and Tawa or Transmission Gully have considerable property impacts. Our choice of a preferred option will not be made lightly.

There are more details on our proposals on five other information boards.

www.nzta.govt.nz/petone-grenada-link-road

New Zealand Government

The route options

We considered a shortlist of four different options for the Link Road and a further four options for the section that includes the Petone Interchange. These options were evaluated to consider criteria such as ecology, archaeology, cost, resilience and landscape/visual/recreational implications. A map of the options is shown below.

Petone Interchange

In considering a preferred route for the Link Road, we considered a number of alternative locations, other than Petone, for the SH2 intersection that would form the start of the new route. These were at:

- Dowse Interchange
- Korokoro Crescent and
- Horokiwi Road.

The Dowse Interchange and Korokoro Crescent options were discounted because they were more expensive and they both pass through Belmont Regional Park. The Dowse Interchange option also affected residential areas while the Korokoro option would also pass through the Korokoro Valley Stream.

The Horokiwi Road option was discounted because of a number of challenges. These were:

- Needing to upgrade SH2 to six lanes (three in each direction) because of increased traffic between Horokiwi and Petone
- Not enough separation between Horokiwi and Petone on and off ramps to meet safety recommendations
- SH2 would need to be widened to build a new interchange, resulting in a large part of the Petone foreshore needing to be reclaimed and complicated by the location of the railway line.

Interchange styles

Two interchange styles have been considered - one with north facing ramps only and the other, a full interchange.

We found that the full interchange with full accessibility delivered more benefits than the north-facing ramps option. A full interchange also allows for more connectivity through Petone because it is more effective in linking to both SH2 and the new Link Road.

The benefits of the Petone Interchange are that it improves the flow of traffic and reduces congestion and delays on The Esplanade, particularly in the eastbound direction in the morning peak period. There is a slight downside in that the Link Road's improved connectivity will also increase the number of vehicles travelling along The Esplanade. This latter issue is being considered separately as part of a study we have been carrying out in conjunction with Hutt City Council. Some information on this is available on the board considering how the Link Road fits into the wider network.

As well as providing better vehicle travel, the interchange could be used for improving walking and cycling connections between the Petone foreshore and Belmont Regional Park.

An interchange may look similar to the SH2 Dowse Interchange, with an elevated roundabout, or it may take another form. We will work on the interchange's design once we have finalised the route the Link Road will take.

An image of a full interchange concept at Petone

The north-facing ramps interchange concept at Petone

Walking and Cycling

In developing options for the new Link Road at Petone we considered how a "beach to bush" connection between Belmont Regional Park and Petone Foreshore could be included for pedestrians and cyclists.

This connection was previously proposed in the Ngauranga Triangle Strategy Study in 2010 and relates to a condition of the SH2 Dowse to Petone Upgrade Project to investigate a pedestrian and cycle bridge near the existing Petone overbridge.

We know that providing a connection between the Korokoro Valley mouth of Belmont Regional Park and the sea is important to the community and will be a key factor in designing the new Petone Interchange.

The new interchange needs to allow a better connection for recreation activities, separate pedestrians and cyclists from traffic, support urban intensification in the western area of Petone and fit well in the local community context from a visual and urban design perspective.

It also provides an opportunity to improve the current entrance to the Regional Park from the Korokoro Industrial Area. This area is not currently designated as open space and the approach through the industrial environment is not attractive. This means there is no visual or physical link between the foreshore and Regional Park and no enticement to cross to it.

Providing pedestrian and cycle facilities on the new Link Road itself is something we are still considering and would be keen to receive feedback on. This will help us to decide if we should consider developing a dedicated pedestrian cycle path along the route or continue to have cyclists use the shoulder of the road as they currently do on other parts of the highway and local road network. Issues we will need to consider for pedestrians and cyclists will include:

- The gradient of the route
- Whether it will be attractive to pedestrians and cyclists
- The cost of providing walking and cycling facilities
- The number of vehicles using the route, and
- Whether trucks would use the shoulder.

Please let us know your thoughts.

Questions

What do you think about the Petone Interchange options?

How often do you visit Belmont Regional Park and how do you access it?

What do you think the benefits are of providing a pedestrian and cycle link between Belmont Regional Park and Petone Foreshore?

What would be the benefits of providing a pedestrian/cycle path along the Link Road?

Petone to the Crest – Discarded options

For the southern section of the Link Road, the team originally considered three options between Petone and the crest of the Wellington Escarpment. These three options did not deliver the best results so the team considered a fourth option. The main difference between the four options is the routes they follow going over the steep hill slopes from Petone to the hilltops of Lincolnshire Farm. The main similarity is that they all require soil and rock to be cut from the hillside to create a new road. Several challenges were found with options 1, 2 and 3 leading to them being discounted. These are outlined below.

Option 1

This route would be very visible to people travelling on the highway and on trains as well as from within Belmont Regional Park. The cuts to create the road would also result in an extensive number of bare areas.

There were further concerns about this route's ability to withstand a large earthquake as it travels along the coastal escarpment, which is located directly above a fault line. In the event of a large earthquake the Link Road and SH2 could both be compromised, closing this half of the Link Road and the Petone Interchange for months.

Option 1: From the proposed Petone interchange, this option climbs to the west and travels along the face of the coastal escarpment before curving to the northwest and running along the west of the ridgeline. From here the route swings back to the northwest and crosses Korokoro Road before linking up with the eastern section of Lincolnshire Farm. The gradients of the steep sections range between 6 and 9% and the largest cuts into the hillside are up to approximately 60m high.

Option 2

This route would also create visual impacts, but they were contained within the valley. Its biggest impact would be it directly encroaching on Belmont Regional Park and the Korokoro Stream.

Other concerns were also raised with this route. Travelling along the Korokoro Stream makes it vulnerable to earthquakes while storms could close the route for weeks.

Option 2: From the proposed Petone interchange, this route climbs to the north and travels along a section of the Korokoro Stream. It then continues northwest. This route is shorter in comparison to Option 1, but is steeper as a result. Its gradient is still within 6 – 9%. The largest cuts are near Korokoro Road and are up to roughly 100m in height.

Option 3

This route also encroaches on Belmont Regional Park, creating significant impacts on users. It would also affect Korokoro Stream, requiring an extra stream crossing.

Although it is located further away from the Wellington fault zone, in the event of an earthquake or storm it could still require weeks to clear the route and provide access.

Option 3: From the proposed Petone interchange, this route climbs to the north on a parallel embankment east of the Korokoro Stream. From this point the route climbs the eastern side of the Korokoro Valley within Belmont Regional Park. It then deviates northwest across the Korokoro Stream. The route climbs a branch of the Korokoro Stream before reaching the eastern hilltops of Lincolnshire Farm. The gradient starts at approximately 6% rising to 9% with cuts of up to roughly 100m near Korokoro Road.

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New Zealand Government

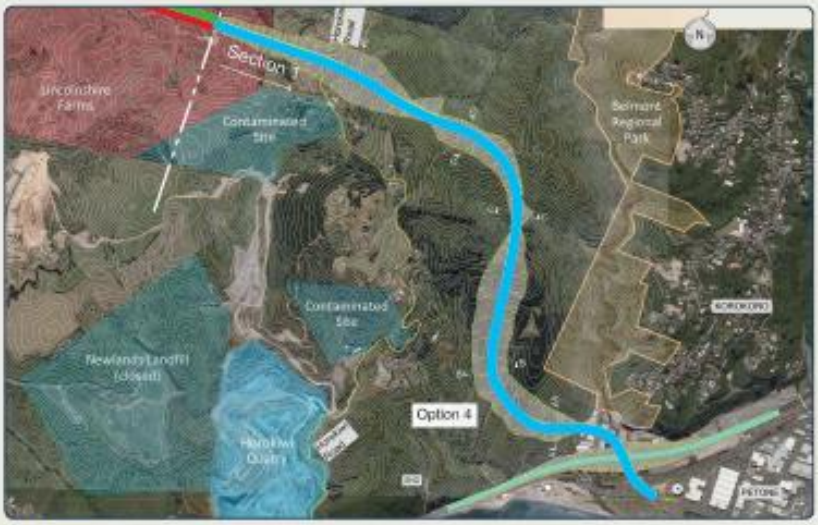
Petone to the crest – Preferred option

After considering Options 1, 2 and 3, Option 4 was added and investigated further. This became the preferred option because it does not go through Belmont Regional Park and it provides better earthquake resilience than Option 1.

In selecting this route as a preference, we took into account previous studies on the Link Road. These clearly identified the public were against any impact on Belmont Regional Park. We also noted that this option meets a key objective of improving the highway's earthquake resilience.

Although the route for Option 4 avoids the coastal escarpment and the Korokoro Valley, it will require more earthworks than the other options. Other issues and opportunities have been identified, including:

- It will create a number of bare areas as a result of cuts into the hillside
- From Petone, the view of the hillside cuts will be significant
- It is located away from the Wellington Fault zone
- If the route is closed by an earthquake it could be reopened within a few weeks without compromising the Petone interchange
- It provides substantially more network resilience than the current highway route
- It is the most expensive option.



Option 4

From the proposed Petone interchange, this route climbs west to the face of the steep hill slope at the intersection of the coastal escarpment and western flank of the Korokoro Valley. It then runs through the steep sided hill in large cuts before curving north. After crossing a branch of the Korokoro Stream, the route curves northwest, to reach the eastern section of Lincolnshire Farm. Option 4 starts at a 6% gradient and increases to 9% for the majority of the route. There are a series of cuts along the route, the largest roughly 85m near Horokiwi Road.

Excess soil and rock

To understand the scale of the cuts we are proposing to make into the hillside for Option 4, take a look at the below picture which shows similar cuts made to Muldoon's Corner on the Rimutaka Hill route of SH2. They are about 59m while the Link Road proposal has cuts of up to 85m near Horokiwi Road.

The cuts will excavate a substantial amount of soil and rock from the hillside. Roughly eight million cubic metres will be generated, which would fill almost eight Westpac Stadiums. This provides us with an opportunity to potentially use this material for other improvements in the region, including:

- Reclaiming the foreshore for the Wellington to Hutt Valley Walking and Cycling Link
- Providing infill material for the proposed Wellington Airport extension, or
- To fill in gullies around the Lincolnshire Farm area creating further residential development opportunities.

Muldoon's Corner on the Rimutaka Hill

Connecting Horokiwi

Although we have a preferred route for this section of the new Link Road, we still need to consider how the Horokiwi community will be connected to the highway network. One option is to provide a new connection to the Link Road and close the current SH2 connection. Another is to keep the SH2 access and not provide a new connection from Horokiwi.

The latter option would mean keeping the current SH2 access and connecting the Horokiwi community with a bridge over the new Link Road, similar to the one shown below. An access road could be established later linking to a new interchange at Lincolnshire Farm. The SH2 intersection would then be closed.

Potential bridge style for a road connecting Horokiwi

Questions

What do you think the benefits are of our preferred option for this section?

Should Horokiwi be connected to the highway network by the current SH2 connections or a new connection with the Link Road?

What do you think of the suggestions we've made for the excess soil and rock we are creating?

Is there anything else you want us to know regarding this section?

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New Zealand Government

The Crest to Tawa - Options

For this section we considered four potential options. Three are variations on the previously considered idea of a new Link Road that connects with the existing highway at either Grenada or Tawa. The fourth offers the potential of a connection to Transmission Gully. The options are:

Option A – Petone to Grenada

Option B – Petone to Tawa with north facing ramps to SH1

Option C – Petone to Tawa with a full interchange to SH1 and the local network

Option D – Petone to TG with connections to Grenada and Tawa

Challenges

There are a number of challenges with the different options, including the need to provide extra capacity on SH1. The challenges include:

- SH1 needing to be increased from four to six lanes between the new Link Road connection and the Transmission Gully interchange for Options A, B and C
- SH1 travel will be disrupted during construction of a new Link Road connection
- The Tawa interchange would need to be removed with Option B
- Increased ecological impacts through the Takapu Valley with Option D.

Having already selected our preferred option at Petone, the team then considered how Options A, B, C and D fit with Petone's Option 4.

Specialist investigations regarding ecology, archaeology, landscape/visual and resilience were carried out and through further analysis we determined all the options were similar in terms of archaeology and landscape/visual issues.

Regarding ecology and resilience, Options A and B are similar, but Option B was eventually eliminated because we found it did not deliver the benefits we are seeking given its costs.

We compared Options A and C and found their ecology ratings were similar. However, as Option C provides more earthquake resilience, we have discounted Option A.

This leaves us with Options C and D, which have similar costs and provide similar benefits. We prefer these options because they make us more resilient to earthquakes, are more cost effective than the other options considered, and connect with the Grenada and Tawa interchanges. This provides people with more travel options. As Option D also connects with Transmission Gully it provides people with even more travel flexibility.

We still need to choose a preference and need your views on the options' respective benefits. This will help us to clarify whether we will proceed with Option C or D.

The importance of gradients in Option D

One of the reasons why the newer proposal of a Transmission Gully connection was considered is because routes between Petone and SH1 near Tawa cross very steep terrain. This will result in a section of road with steep gradients. We investigated this issue and found a connection between Petone and Transmission Gully will be 20% more efficient than a route connecting at Tawa and 40% more efficient than the existing route along SH1 and SH2 for heavy vehicles. This would be a significantly positive contribution to the local and national economy because it would reduce vehicle operating costs. That means freight operators spend less time and money on travel, which may result in lower prices for goods and services.

There is still more work to do to consider how Option D would fit with Transmission Gully as they are at very different stages of development. Should this be the direction we take we will look into this issue further.

The discarded options

Option A

At the eastern section of Lincolnshire Farm, Option A runs northwest across the broad, undulating hilltop plateau of Lincolnshire Farm before turning north to the Mark Avenue roundabout area. Just before Mark Avenue, the route crosses a steep-sided gully at an existing crossing point and at the Mark Avenue area it runs southwest along Grenada Drive to the Grenada interchange at SH1.

Option B

This option is similar to Option B but at the hilltop plateau at Lincolnshire Farm it turns north to SH1. Between the northwest section of Lincolnshire Farm and SH1, this route crosses a deep gully and cuts through the northern landfill before eventually connecting to SH1 with north facing ramps only. This would not provide full access to Tawa or Grenada North.

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New Zealand Government

The Crest to Tawa – Preferred Options

After thorough consideration, Options C and D became our preferred options. Both are feasible and we prefer them because they make us more resilient to earthquakes. They are more cost effective than Options A and B and connection with the Grenada and Tawa interchanges provide people with more travel choice.

Option C

At the eastern section of Lincolnshire Farm, Option C runs northwest across the broad, undulating hilltop plateau at Lincolnshire Farm before deviating north to SH1. Between the northwest section of Lincolnshire Farm and SH1, this route crosses a deep gully and passes east of the northern landfill. Beyond this point, it runs parallel with SH1 to the interchange at Tawa. This option is currently expected to cost between $179 and $381 million and includes upgrading SH1 from four to six lanes between Tawa and Transmission Gully.

Proposed road configuration

- Three lanes in each direction from the east section of Lincolnshire Farm to just east of the northern landfill
- Two lanes in each direction between the east of the northern landfill to the modified interchange at Tawa
- One lane in each direction between the northwest section of Lincolnshire Farm and the Mark Avenue roundabout
- A modified interchange on SH1 at Tawa
- A new interchange linking with Lincolnshire Farm and SH1 at Grenada
- Widening and straightening of SH1 between Tawa and the southern end of Transmission Gully.

Key aims:

- Full connectivity to SH2, The Esplanade and Hutt Road in Petone
- Full connectivity to SH1 and the local road network at Tawa
- Link to Lincolnshire Farms and SH1 at Grenada.

Results

This option results in the average morning and evening peak travel speeds being increased, which reduces travel time, delays and queuing. It also has an expected reduction of traffic on SH2 and SH1 around the Ngauranga Interchange and on SH58 and increases traffic around SH2 north of Petone and north of the Tawa Interchange.

Option D

Similar to Option C, this route starts at the eastern section of Lincolnshire Farm and runs northwest across the hilltop plateau before deviating north to SH1 to connect with a new interchange that links with Grenada Drive. Between the northwest section of Lincolnshire Farm and SH1, this route crosses a deep gully and passes east of the northern landfill to a new interchange at Tawa to the east of SH1. Beyond this point it runs northeast along the gently sloping eastern flank of Takapu Valley to connect with Transmission Gully at the Takapu interchange. This option is currently estimated to cost between $165 and $375 million and provides an opportunity to make improvements to pedestrian and cycle facilities between the new Link Road and a reconfigured Tawa interchange.

Proposed road configuration

- Three new lanes in each direction from the eastern to northwest section of Lincolnshire Farm
- Two new lanes in each direction from the northwest section of Lincolnshire Farm to Tawa
- One lane in each direction between Tawa and Transmission Gully
- A new interchange at the northwest section of Lincolnshire Farm connecting with Lincolnshire Farm and SH1 at Grenada
- A new interchange east of Tawa connecting with Tawa and SH1
- Modifications to the existing Tawa interchange
- North facing ramps at Transmission Gully

Key aims

- Full connectivity with SH2, The Esplanade and Hutt Road in Petone
- Eastbound connections with Transmission Gully at Takapu
- Link to Lincolnshire Farms and SH1 at Grenada
- Link to SH1 at Tawa.

Results

This option results in the average morning and evening peak travel speeds being increased, which reduces travel time, delays and queuing. It has a minimal impact on Transmission Gully and has similar results in terms of travel in that it reduces traffic on SH2 and SH1 around the Ngauranga Interchange and on SH58 and increases traffic around SH2 north of Petone and north of the Tawa Interchange.

Questions

What do you think the benefits are of Option C relative to Option D?

Is there anything else you want us to consider?

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New Zealand Government

How the Link Road fits in the wider network

We completed three transport studies to help inform our decisions on the Link Road. These studies considered the benefits of improvements to the existing highway routes of SH2 and SH58 and the potential of creating a new Seaview Link. A brief summary of these studies is listed below.

SH2 Petone to Ngauranga Six Laning

This study looked at the potential widening of SH2 between Petone and the Ngauranga Interchange, including potentially making the highway six lanes wide (three lanes in either direction). While widening this section of SH2 (via seaward reclamation) is feasible, it would be expensive. A better investment focus for the short to medium-term is a new Petone Interchange, which, when combined with our Ngauranga to Aotea Quay SH1 improvements, will significantly improve congestion and travel times.

SH58 Efficiency Improvements

This study looked at SH58 efficiency upgrades from the future Paua Interchange (created by Transmission Gully) to the Haywards intersection with SH2. Efficiency upgrades to SH58 are not a suitable alternative to the new Link Road as they would deliver significantly fewer transport and economic benefits. With the new Link Road in place there will be no need to consider efficiency improvements to SH58 for quite some time. There is, however, a need to improve the safety of SH58. We are currently investigating safety improvements with a range of possible options being considered, including guardrails, realigning the road, better road marking, median wire rope barriers and widening the road.

Seaview to SH2 Transport Link

In conjunction with the Hutt City Council, we investigated improving the transport link between Seaview and SH2. We looked at a variety of options, including upgrades to the rail network and identified that roading upgrades were feasible, generating positive transport and economic benefits. We also identified that the new Link Road would not trigger the need for any improvements to the road network. The Council is now considering the outcomes of this study.

Tolling

An important issue we need to consider for the Link Road is how to fund its construction. At the moment, construction is planned from around 2019, but this would be subject to funding being available at that time.

One option we are considering is tolling the new Link Road. This could enable it being constructed earlier, realising the transport and wider economic benefits sooner.

Based on some early assessments, we believe this road could be a good tolling prospect because of the significant travel time savings and high traffic volumes expected to use it, particularly at peak times.

Before tolling is considered any further, we need to consult all the affected communities and stakeholders more widely on a detailed proposal that would include:

- The likely operational costs and economic benefits/impacts of tolling
- Potential impacts that tolling infrastructure (ie location of gantries) would have on the proposed road alignment, connections and interchanges, and
- Possible toll prices.

At this early stage, the key questions we would like your thoughts on about tolling as an option are:

Would you support a toll on the Link Road if it meant building it sooner?

What are your thoughts on the benefits of tolling the Link Road in order to help realise its benefits for the region?

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New Zealand Government

Next Steps

We welcome your feedback as it will help us refine our plans for the Link Road and will inform our next steps for the Wellington to Hutt Valley Walking and Cycling Link.

Please give us your feedback today or send it to us via our website or email address before the end of March. We will be summarising everyone's feedback into a report that we will make publicly available later in the year. Your personal details will remain private.

We expect to refine our proposals further and make decisions on the Link Road at the end of the year or in early 2015. We will then complete a scheme assessment report and consult with the community on our proposals. This will include discussions about how we mitigate potential construction and operation impacts. You can expect to hear about these from 2015.

The Link Road is currently scheduled to begin construction around 2019. This timing will depend on when consents are granted and how we agree to fund construction.

Indicative project timeline

- **Early 2013** – Link Road work starts
- **2013/2014** – Options investigated
- **Early 2014** – Public consultation on proposals
- **Late 2014** – Preferred option confirmed
- **Mid 2015** – Seek RMA approvals
- **2016-2018** – Detailed design
- **2018-2023** – Construction (subject to funding)

Thanks for coming!

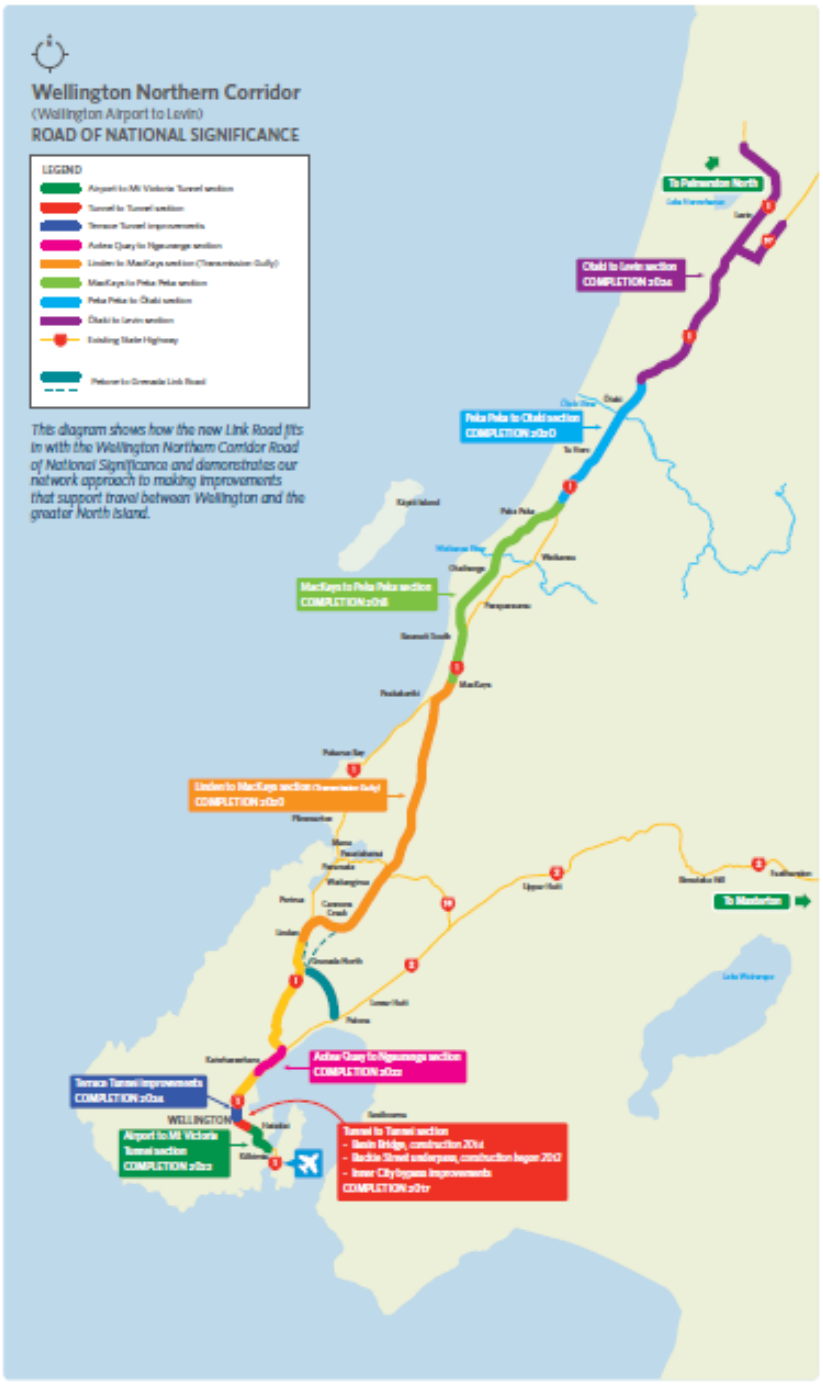
Contact us

Website: www.nzta.govt.nz/petone-grenada-link-road

Email: petone2grenada@nzta.govt.nz

Freephone: 0508 P2G INFO (0508 724 4636)

Freepost: Petone to Grenada Link Road Team
Freepost 225938
PO Box 5084, Thorndon
Wellington 6145



This diagram shows how the new Link Road fits in with the Wellington Northern Corridor Road of National Significance and demonstrates our network approach to making improvements that support travel between Wellington and the greater North Island.

Appendix F Pro-forma Form 1

Petone to Grenada Link Road – Community Feedback

Name:			
Address:			
Phone No:		**e-mail:**	
Signature:		**Date:**	

I have reviewed the NZTA plans for roading development in the Tawa area (Option C) and through Takapu Valley (Option D).

I am concerned about the negative and destructive impact of these proposed plans which have not been adequately justified and given appropriate community consultation.

My key concerns are the negative impacts on the following (please tick):

Community	Environment	Heritage	Recreation	Air Quality	Noise	Landscape
✓	✓	✓	✓	✓	✓	✓

Other comments:	

Options	My Feedback to NZTA	Tick √
Option C	I reject the plans for the widening of State Highway 1 between Grenada and Linden.	✓
Option D	I reject the plans for linking Grenada to Transmission Gully via Takapu Valley.	✓
I am a resident in the Ōhariu electorate.		
I am a registered voter in the Ōhariu electorate and I am willing to use my vote to stop these plans.		
I have attached further information as part of my submission to NZTA.		

Appendix G Pro-forma Form 2

March 2014

Petone to Grenada Link Road Team
Freepost 225938
PO Box 5084, Thorndon
Wellington 6145

SUBMISSION ON PROPOSED PETONE TO GRENADA LINK ROAD

I LIVE IN TAWA. MY ADDRESS IS [redacted]

I OBJECT TO NZTA'S PROPOSED **OPTION C** TO WIDEN THE MOTORWAY.

MY REASONS ARE:

- ☑ NZTA'S POOR COMMUNICATIONS AND ANALYSIS
- ☑ LACK OF JUSTIFICATION TO WIDEN THAT PART OF THE MOTORWAY
- ☑ INCREASED NOISE FOR RESIDENTS AND SCHOOLS
- ☑ VISUAL IMPACT OF MOTORWAY CLOSER TO HOMES AND SCHOOLS
- ☑ SAFETY CONCERNS FOR STUDENTS AND RESIDENTS
- ☑ DEVALUATION OF TAWA PROPERTIES
- ☐ LOSS OF NEIGHBOURS
- ☑ UNCERTAINTY FOR THE NEXT 10 YEARS
- ☑ DISRUPTION WHILE CONSTRUCTION TAKES 5 YEARS
- ☑ CAN'T SELL MY HOUSE WHILE THIS IS GOING ON
- ☑ STRESS AND ANXIETY

MY PARTICULAR CONCERNS ARE:

Yours sincerely,
[redacted]

Appendix H Pro-forma Form 3

[redacted] 2014

Petone to Grenada Link Road Team
Freepost 225938
PO Box 5084, Thorndon
Wellington 6145

SUBMISSION ON PROPOSED PETONE TO GRENADA LINK ROAD

I LIVE IN TAWA. MY ADDRESS IS [redacted]

I OBJECT TO NZTA'S PROPOSED **OPTION C** TO WIDEN THE MOTORWAY.

MY REASONS AGAINST OPTION C ARE:

- ☑ LOSS OF PROPERTIES
- ☑ LOSS OF CLASSROOMS, EFFECT ON STUDENTS
- ☑ TRAFFIC NOISE INCREASE SIGNIFICANTLY
- ☑ MOTORWAY CLOSER TO HOUSES AND SCHOOLS
- ☐ SAFETY CONCERNS FOR RESIDENTS AND STUDENTS
- ☑ DEVALUATION OF TAWA PROPERTIES
- ☐ UNCERTAINTY FOR THE NEXT 10 YEARS
- ☐ SIGNIFICANT DISRUPTION TO TRAFFIC
- ☐ LACK OF JUSTIFICATION TO WIDEN THAT PART OF THE MOTORWAY
- ☐ STRESS AND ANXIETY

MY PARTICULAR CONCERNS ARE:

MY PREFERRED ALTERNATIVE IS:

- ☐ [redacted]
- ☑ I DON'T HAVE ONE

Yours sincerely

[redacted]

Appendix I Pro-forma Form 4

HELP PROTECT TAWA AGAINST DAMAGING ROADS

The NZTA plan to either widen SH1 at Tawa (Option C) or bulldoze a road through Takapu Valley (Option D).
Both are unnecessary and will destroy homes and businesses.

The Tawa Community Board, Peter Dunne and the Takapu Valley and Tawa Groups all oppose these developments. As a community we need to give our support to them.

Reasons why the NZTA need to go back to the drawing board:

- Traffic on the Tawa part of SH1 will be massively reduced because Hutt traffic will come off at Judgeford to use SH58
- So SH1 is already wide enough (we measured it)– no need to destroy homes
- Building a road through Takapu Valley will not save the journey time the NZTA claim.
- The pollution will kill the headwaters of the streams
- SH58 is less hilly than the link road and will be the road of choice for trucks (less traffic in our area again)
- SH58 is the only road that offers any resilience in a natural disaster
- The cost to taxpayers is $150-$200million to widen 3km of road
- Traffic numbers have not increased in 10 years and will not increase for many more
- Use the money to make SH58 safer and more resilient

Tawa is a great place to live with a special character that is worth fighting for. Help us protect Tawa residents from the misery these road developments will cause. Help us to get the NZTA to rethink their proposals. Please submit this form.

Name:	**Address:**	
Option C	I reject the plans for the widening of SH1 between Granada and Linden	✓
Option D	I reject the plans for linking Grenada to Transmission Gully via Takapu Valley	✓
I am a resident in the Ohariu electorate. I am willing to use my vote to stop these plans (please tick if you wish)		

Please post by Monday 14th April *Find out more from :* tawalink.com or takapuvalley.org.nz Issued by: takapuvalley.org.nz

Want to find out more?

Our contact details

For general enquiries, or contact information about NZ Transport Agency please check our website ***www.nzta.govt.nz*** or email us at ***info@nzta.govt.nz***

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NZ **TRANSPORT** AGENCY
WAKA KOTAHI

New Zealand Government