

Awakino Gorge to Mt Messenger Programme

Community Consultation on Options

Haere mai, welcome

We are investigating options for improvements on State Highway 3 (SH3).

Please have a look at the displays and let us know what you think about the proposed options.

Our team is here to answer any questions you may have and to listen to your feedback.

Please complete the Feedback form before you leave.

Your views are important to us.



The Awakino Gorge to Mt Messenger Programme

There are three projects that make up the Programme — safety and resilience improvements, and bypass investigations for Mt Messenger and Awakino Gorge.

The Programme aims to improve:

Safety

by reducing the number of deaths and serious injuries from crashes.

Resilience

by reducing the number and duration of road closures due to natural hazards and crashes.

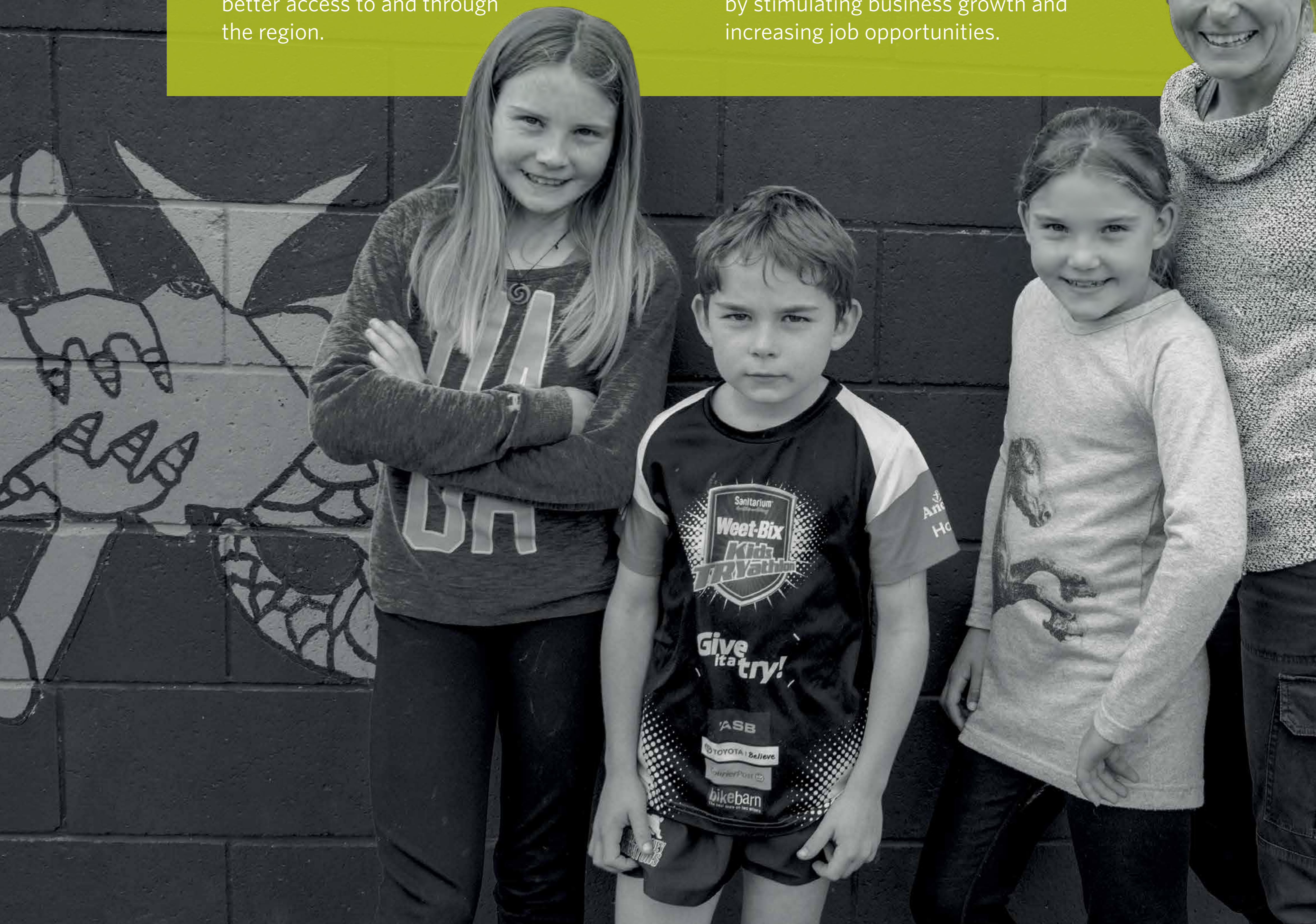
Drivers' journey experience

by reducing time delays and improving travel time reliability.

Benefits for road users and the region

Improved access, safety and travel time reliability along this route creates significant benefits:

- » **Easier and more reliable journeys** will mean that freight carriers and other vehicles experience more consistent speeds, lower costs and less wear and tear on their vehicles.
- » **Faster response to critical situations** by emergency services.
- » **Greater opportunities for tourism** through better access to and through the region.
- » **Better resilience** from natural events or crashes.
- » **Safer and more pleasant driving experience** for all road users with new passing opportunities and pull-off areas.
- » **Investment in roading infrastructure and business can boost the regional economy** by stimulating business growth and increasing job opportunities.



Background on the Programme

The Mt Messenger and Awakino Gorge Tunnel investigations are part of the Accelerated Regional Roding Package (ARRP) announced in 2014 and funded by the Government. The safety and resilience improvements to State Highway 3 (SH3) are being funded separately through the National Land Transport Programme.

In January 2016, Government announced that up to \$115 million of funding would be made available for construction of a number of key projects, including bypasses for Mt Messenger and the Awakino Tunnel.

The intention of improving access along SH3 between Mt Messenger and Awakino Gorge has a long history.

1970s and 1980s The Ministry of Works and Development carries out SH3 investigations for the National Roads Board.

2002 The Taranaki Regional Council establishes the State Highway 3 Working Party in response to ongoing concerns about the route security, safety and efficiency for the section of SH3 between Taranaki and Waikato.

2002 Transit New Zealand (pre-cursor to the Transport Agency) commissions BECA to survey three re-routing options for the Mt Messenger section of the highway, including a coastal, central and eastern route. The report favours the western route, but the economic justification doesn't meet Transfund's (funding agency) funding criteria. It is recommended in the short term to investigate and prioritise safety improvements to the existing highway and review the bypass options every five years or so.

2012 The Venture Taranaki Trust undertakes an economic impact assessment of SH3 to the north of the region. It finds the economic potential of the route is constrained by four factors — it is relatively unsafe, difficult for freight movements, presents a challenge to road transport between regions and is vulnerable to closures from crashes and slips.



How did we get here?

A structured process is being used to identify the best ways to carry out the improvements to State Highway 3 (SH3).

1. Identify and agree SH3 problems and issues (2014)

An initial assessment occurred to understand:

- » the main problems and issues along SH3
- » potential benefits and funding requirements of addressing these concerns.

Key stakeholders are involved and give their views.

2. Gain an in-depth understanding of the problems and opportunities (2015)

A broad package was developed based on the key benefits for investment:

- » Improving the worst crash and road closure areas along the highway with a wide range of roading and safety interventions.
- » Better managing the travel experience through speed management, enforcement and driver information.
- » Better managing emergencies by providing improved communication and facilities along the highway.

3. Options and alternatives (2015)

There were 107 potential options from small to big improvements at many sites along SH3. These were shortlisted into five programmes:

- » Corridor-wide treatments, eg signage and rumble strips
- » Safety focus
- » Journey experience, eg take out tight curves
- » Awakino Tunnel realignment (bypass) as an alternative to safety improvements along the existing route
- » Mt Messenger realignment (bypass) as an alternative to safety improvements along the existing route

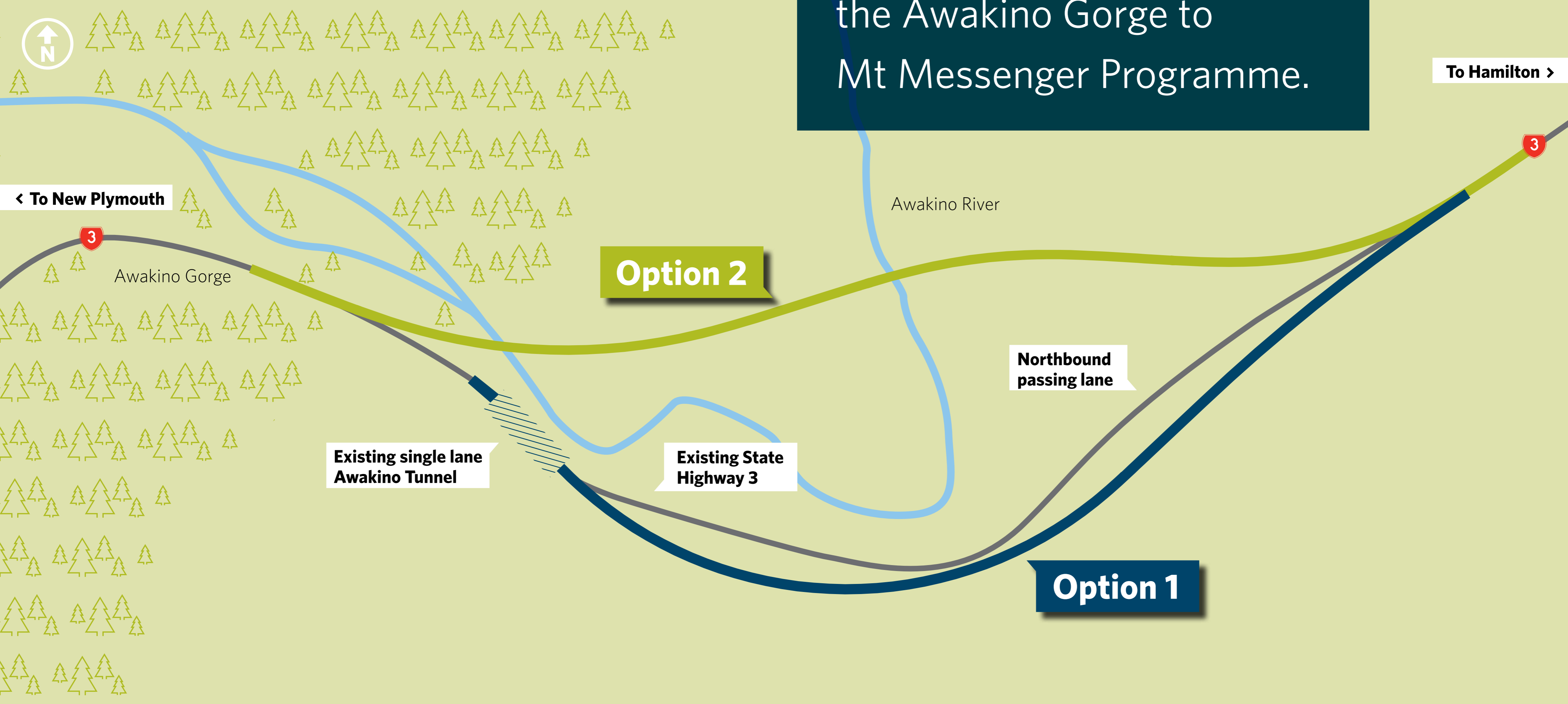
4. Investigations to identify the preferred options (2016/17)

The Government allocated additional funding and decided to proceed with three projects:

- » Awakino Tunnel bypass
 - » Mount Messenger bypass
 - » Corridor-wide improvements and works focussed on safety
- Investigations continue including consultation with the local communities and other key stakeholders on options for the three projects.

Awakino Tunnel bypass route options

The Awakino Tunnel bypass Project is one of three projects that make up the Awakino Gorge to Mt Messenger Programme.



From a range of possible options following wide-ranging investigations, these are the two route options that we have short-listed:

Option 1: This is not a bypass but provides safety improvements along the existing route.

It includes opening up and widening the Awakino Tunnel to two lanes and making the curve to the north safer.

Option 2: A bypass away from the tunnel with two bridges.

This option appears to offer the best solution because it provides significant travel improvements by avoiding the existing narrow section of highway, at a reasonable cost.

Option 1: Improvements to existing route

This option, which is 800 metres long, generally follows the existing highway and opens up the Awakino Tunnel creating a 70 metre high cut slope. It is widened to provide two lanes of traffic.

The curve north of the tunnel is eased to make it safer and the slope on the southern side is improved to reduce slips.



Key features

Overall, these are some of the key features of Option 1.

Safety, resilience and journey experience

This option provides moderate improvements in safety and resilience, and removes potential delays associated with the single lane tunnel.

Impact on the environment

The large cut slope to open up the tunnel is highly visual. It fits in with the surrounding hillsides and can be softened by landscaping. Overall this option has a low to moderate environmental impact.

Land required

A small amount of land is needed from two properties adjacent to the route.

Maintenance

The large cut rock slope will need ongoing maintenance, but removes the need for tunnel maintenance.

Construction period diversions

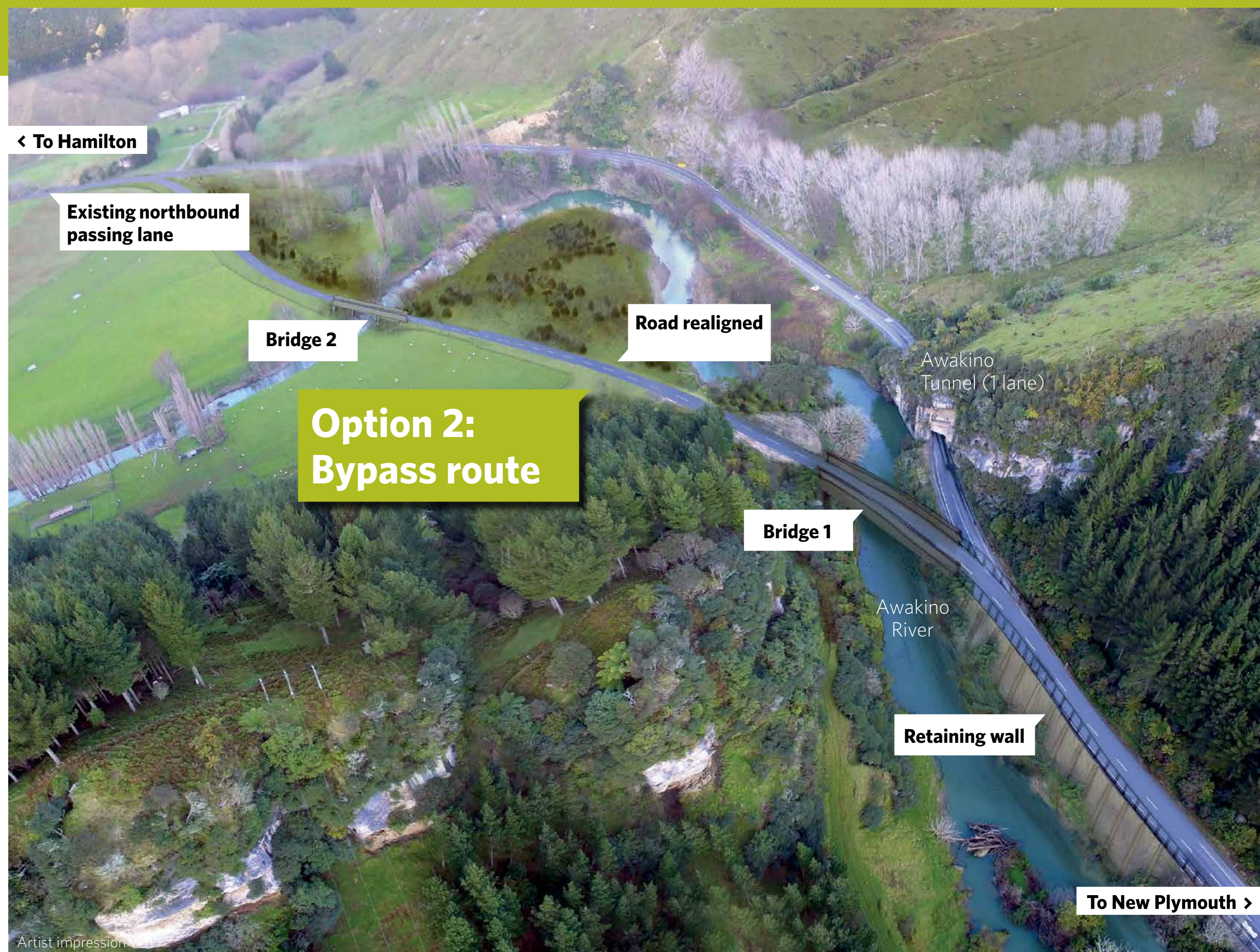
During construction a temporary diversion is put in place, involving two temporary single-lane bridges and a length of temporary road. This diversion would probably be controlled by temporary traffic signals.

Option 2: Awakino Tunnel bypass route

Option 2 is an 800 metre route that bypasses the Awakino Tunnel.

It involves:

- » repositioning the current highway away from the Tunnel with two bridges over the Awakino River
- » building complex retaining walls at the western end of the bypass where it reconnects to the existing highway.



Key features

Overall, these are the key features of Option 2.

Safety, resilience and journey experience

This option delivers comprehensive improvements in safety, resilience and journey experience including travel time. It provides more improvements than Option 1.

Impact on the environment

This bypass route has a low impact on the environment. The retaining walls and bridges over the Awakino River will lead to very minor loss of vegetation near the river.

Care has been taken to make sure that this bypass option does not involve diverting the Awakino River.

Land required

A small amount of land is needed from two properties crossed by the route.

Construction cost

At the current stage of the Project's development and using available information, we expect Option 2 to be marginally more expensive than Option 1.

Mt Messenger bypass route options

The Mt Messenger bypass Project is the largest and most complex of the three projects that make up the Awakino Gorge to Mt Messenger Programme.



We've carried out considerable investigations into possible routes to bypass Mt Messenger and there is still more work to do.

We've short listed three possible options, each with advantages and disadvantages.

Based on the work to date, we favour one of the bypass routes because it appears to provide a better solution overall than the other two options.

While investigations continue, we would like your feedback about the options, your preference and reasons.

This will help inform the option we take forward for more detailed design and to address the impacts it creates.

Our short list of route options is:

Option 1

This is not a bypass but provides safety improvements along the existing route, including opening up and widening the Mt Messenger Tunnel.

Option 2

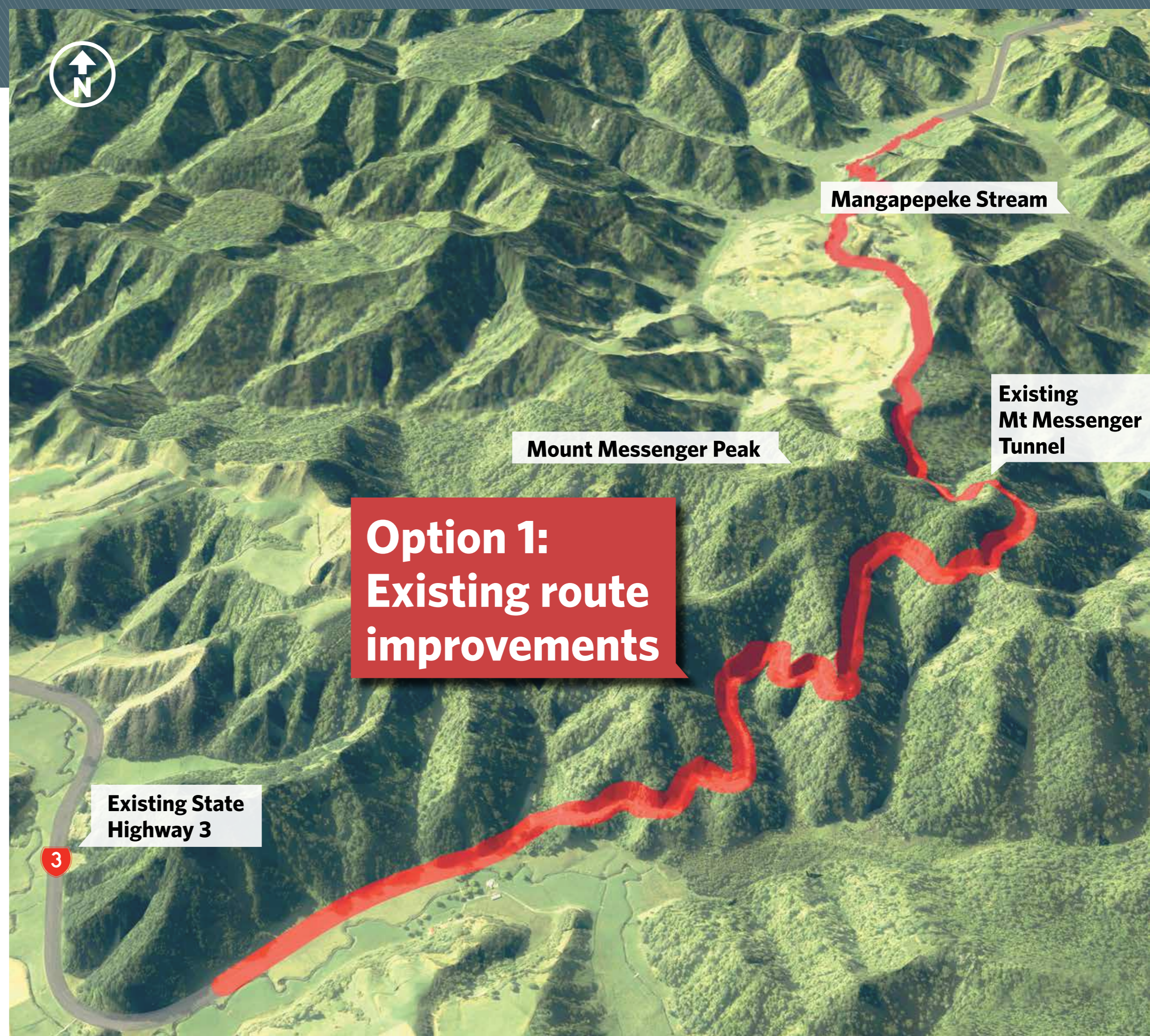
A 6.4km bypass route running west of the existing highway.

Option 3

A 5.3km bypass route running further west of the existing highway.

Option 1: Improvements to existing route

This option is not a bypass route. It follows the existing highway, opens up and widens the Mt Messenger Tunnel to provide two lanes of traffic. An option to fully reconstruct the highway in its current location was discounted because of resilience issues and the practical problems of building it while still maintaining the main link between Taranaki and Waikato.



Key features

Safety, resilience and journey experience

Option 1 delivers improvements in safety and resilience, but considerably less than the other options. This route does not provide significant travel time savings but has considerably less impact on the surrounding environment than the bypass options. The main improvements include:

- » opening up and widening the tunnel
- » widening the shoulder of the road in some areas (includes some drainage improvements) to enable better forward visibility around curves and to provide pull over and slow vehicle bays

- » new road edge barriers
- » rock fall retaining walls and bunds (barriers to keep rocks off the highway)
- » cut slopes that step back from the roadside (to provide better visibility around corners).

Improving the existing route does not offer the benefits of an alternative route (that the bypass options would) if any closure occurs through natural hazards or crashes.

Impact on the environment

This option has significantly less impact on the landscape and environment compared to the other two options. However ways to avoid or

minimise effects will form part of the overall project. These include drainage improvements to the road with increased storage for stormwater run-off.

Land required

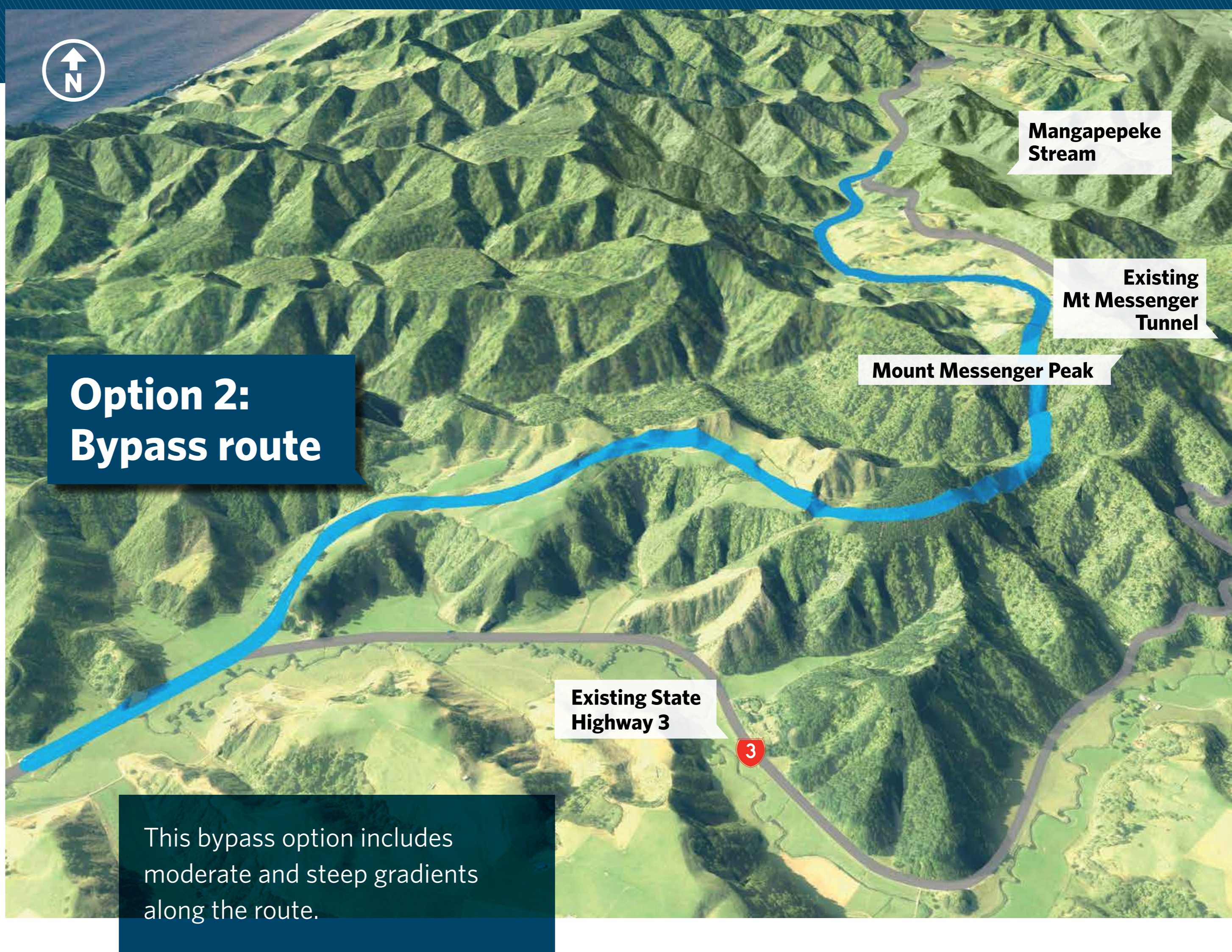
None or minimal land needs to be purchased.

Construction period diversions

There will be delays and disruption to traffic during construction. There will be traffic management measures and, where possible, works scheduled outside of peak times.

Option 2: Mt Messenger bypass route

Option 2 is a bypass route running west of the existing highway and is approximately 6.4km long. It generally follows the contours of the surrounding hills and valleys, but does have approximately 100 metre high cut slopes and steep gradients in some locations.



This option provides a likely speed limit of 60 to 70km/h and passing lanes uphill in both directions.

At this stage of the investigation work, this option appears to offer the best solution of the three options. It provides a bypass with moderate to significant journey improvements, while impacting less on sensitive ecological areas and costing less than the other bypass option. It also improves the highway's resilience by providing a bypass built to modern safety standards. However we are interested in your views to help us select the preferred option.

Key features

Safety, resilience and journey experience

When compared to Option 1, Option 2 provides much better travel times and significant improvements in safety and improved resilience.

It avoids the worst stretch of Mt Messenger's current road layout, including the narrow tunnel.

This new route offers the best possible design features within the constrained and challenging terrain. It takes a slightly longer driving time compared to Option 3 and minimises impacts of going through or cutting off potentially sensitive ecological and cultural areas.

The route design fits in better with the existing landforms so that fewer safety improvements are needed to the north and south of the bypass.

Impact on the environment

There is a moderate to high impact on sensitive ecological and cultural areas. Ways to minimise or avoid them will be agreed with the local iwi, private landowners and the Department of Conservation.

The approximately 100 metre high cut slopes have a high visual impact. The possibility of softening the cut slopes by landscaping, need to be further investigated.

Land required

Approximately 35 hectares of private land, and 13 hectares of local iwi land will be required to implement this option.

Construction cost

At the current stage of the Project's development and using available information, we expect Option 2 to be two to three times more expensive than Option 1.

The final expected cost will be influenced by the suitability of the ground conditions and the costs of minimising and avoiding the impacts on the areas of ecological and cultural value.

Option 3: Mt Messenger bypass route

Option 3 is a bypass route running west of the existing highway and is approximately 5.3km long. It generally follows a straight-line pathway, which makes it the most direct route compared to Option 1 and Option 2.



To get through the hills and valleys the route includes some very high cut slopes (up to 120 metres high) and areas built up by about 50 metres from the existing ground level to new higher levels.

This option provides a likely 90km/h speed limit and slow vehicle bays in both directions for passing opportunities. So that traffic can maintain its speed in or out of the bypass and along the existing route to the north, there would need to be transition sections on the new bypass route or improvements on the existing section of highway.

Key features

Safety, resilience and journey experience

This option delivers significant improvements in safety, resilience and journey experience and avoids the worst of the current road layout of Mt Messenger.

Impact on the environment

There is a high impact on sensitive ecological and cultural areas. Ways to minimise or avoid them will be agreed with the local iwi, private landowners and the Department of Conservation.

The very high cut slopes have a high visual impact. The possibilities of softening cut slopes by landscaping need to be further investigated.

Land required

Approximately 33 hectares of private land, and 19 hectares of local iwi land will be required to implement this option.

Construction cost

At the current stage of the Project's development and using available information, we expect Option 3 to be three to four times more expensive than Option 1.

The final expected cost will be influenced by the suitability of the ground conditions and the costs of minimising and avoiding the impacts on the areas of ecological and cultural values.

State Highway 3 Improvements



This project aims to deliver a balanced programme of safety, resilience and journey experience improvements over 58km between the northern end of Awakino Gorge and southern end of Mt Messenger.

What are the issues with State Highway 3 (SH3)?

Safety

There are many serious crashes on the road because of its sharp bends, narrow lanes and numerous unforgiving roadside hazards.

Poor resilience

This road is regularly closed because of vehicle crashes, and slips and debris blocking the way. There is no convenient alternative route so these road closures can cause big delays for motorists.

Poor journey experience

A lack of passing opportunities and safe places to pull over on the road frustrates drivers. Frustrated drivers can make unsafe decisions which lead to crashes.

What will the benefits be for motorists?

Safer journeys

- » Fewer crashes resulting in deaths and serious injuries.
- » More people returning from their journeys safe and sound.

A more resilient road

- » Fewer road closures due to slips and vegetation falling onto the road.
- » Fewer delays caused by crashes and congestion creating a more predictive journey time.

Less stressful / more enjoyable journeys

- » More safe opportunities to pass other vehicles.
- » Fewer delays caused by road closures and congestion.
- » More scenic areas for motorists to pull over and take a break.

What improvements are we considering?

Stage 1



Side safety barriers

Installation of side barriers at high risk locations to reduce the severity of a run-off-road crash.



Visibility improvements

Trimming and removal of vegetation to improve visibility through curves.



Rest stop areas

Formalised stopping areas, safe for pulling over to allow vehicles to pass, check loads and take a break.



Review of speed management

There are three areas where we would like your views on how speed is managed.



Signage

Consistent and appropriate curve signage to warn drivers of high risk curves.



Slow vehicle bays

New areas for slower vehicles to pull over and let traffic pass.



Rumble strips

Installation of centre line and selected edge line to reduce cars running off the road and head-on crashes.

Stage 2



Road widening and intersection improvements

Additional tarseal in isolated locations to provide extra road width allowing vehicles to pull over or recover more easily.



Passing opportunities

Additional safe passing opportunities to reduce driver frustration and improve travel time reliability.



Road realignments

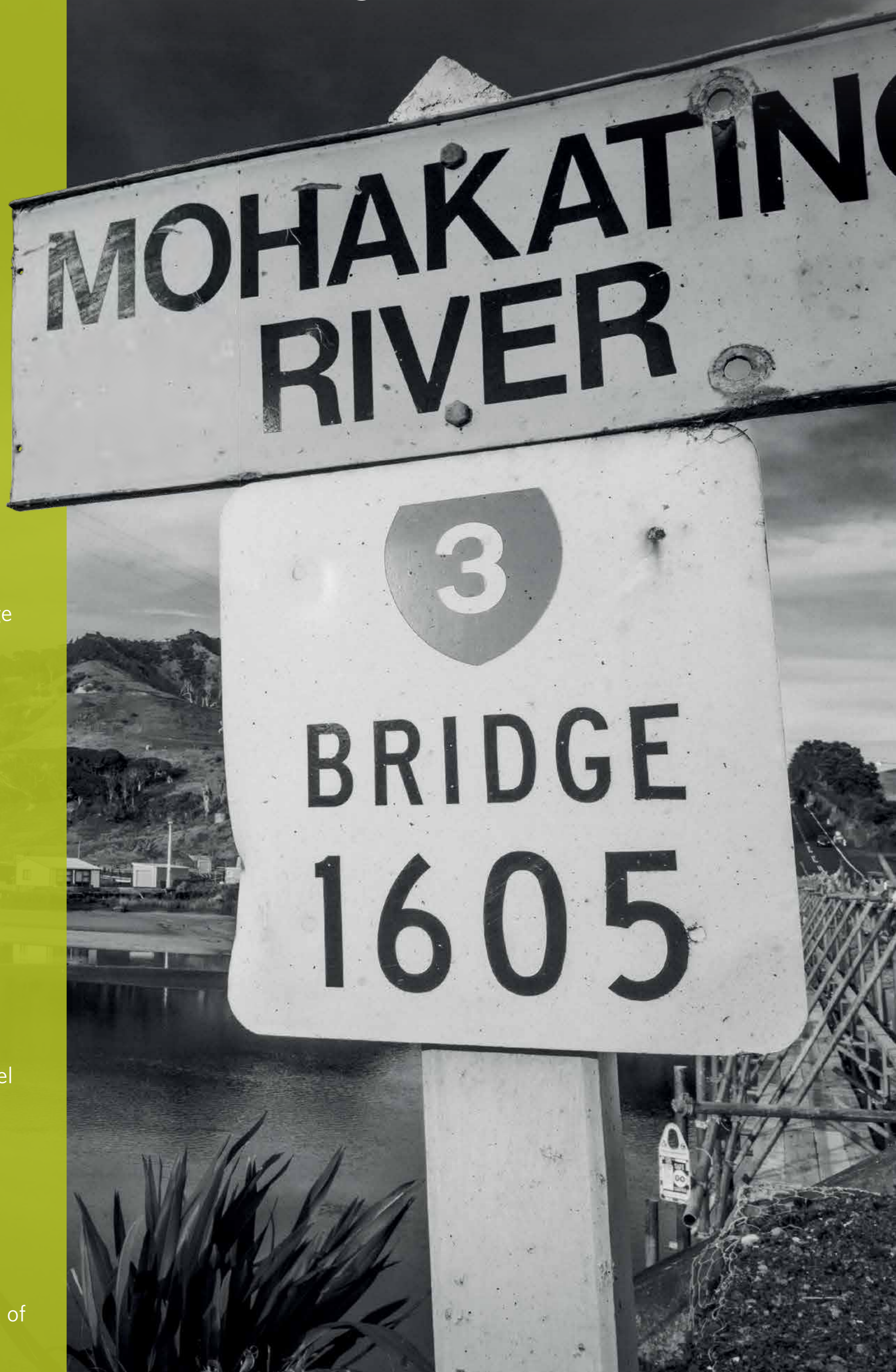
Easing curves to improve safety, route resilience and driver experience.



Slope stability

Slope stability improvements at high risk sites to reduce the frequency and duration of road closures.

The improvements are focused on engineering solutions. Physical works will be split over two stages.



Stage 1: What's happening first?

This package includes work on State Highway 3 (SH3) within the existing road reserve. The improvements will not require a resource consent and are relatively simple to implement.

Physical works are expected to begin in early 2017, allowing us to deliver early benefits to all road users.

Please talk to one of our team to learn more.

Why?

To make the road safer, more resilient to roadslips and improve the driving experience for all road users



The location of possible options are shown on the map.

Estimated works time line



Stage 1: Managing road risk



New Zealand roads can be unforgiving

- » Our roads are unique. Our roads are windy, hilly, often single lane.
- » These roads can be challenging and demanding to drive, and the consequences of small errors can be fatal.
- » Not all risks are visible, and often our roads aren't easy to read.



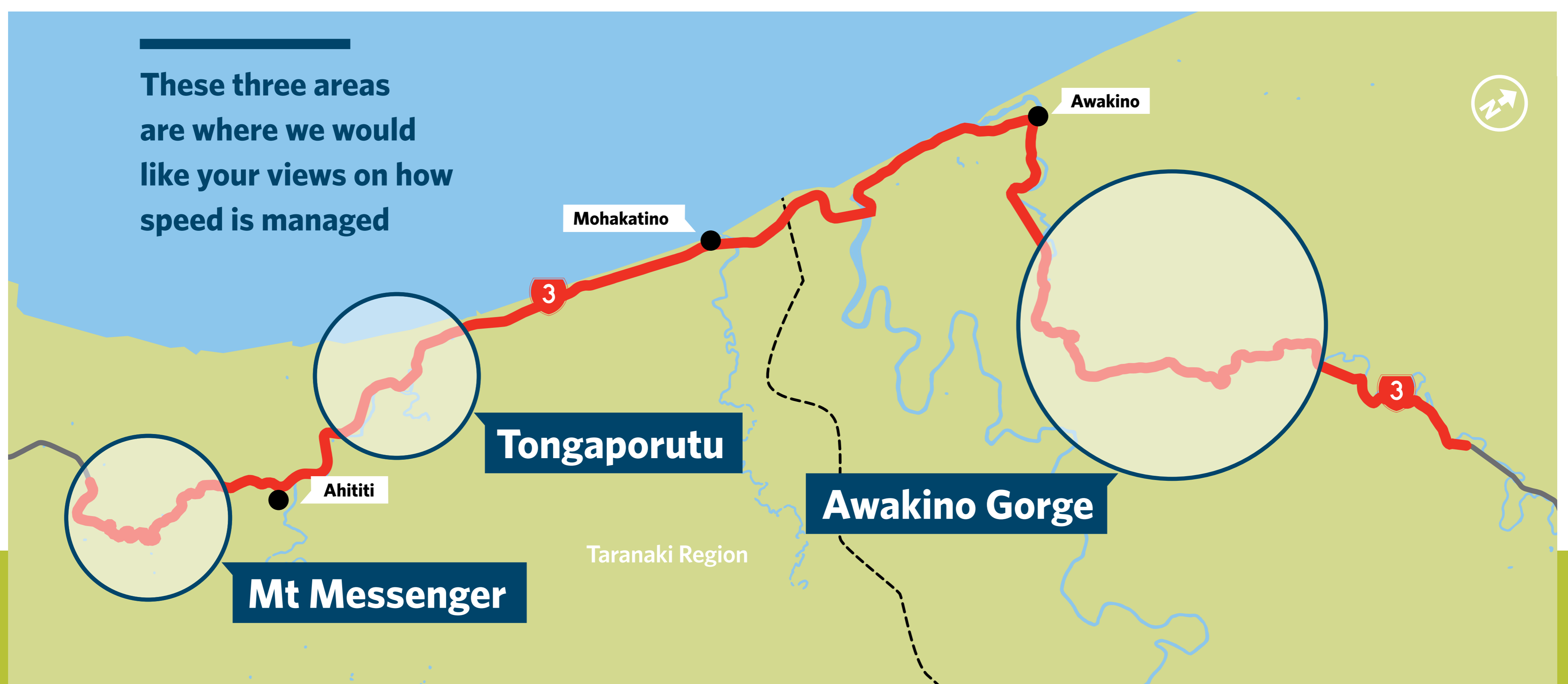
Drivers need to choose the right speed for the road

- » Drivers use a lot of cues to read the road and assess the right speed for the road and the conditions.
- » Conditions include the shape of the road, the weather, traffic, other road users, and road-side hazards.
- » Regardless of what causes a crash, speed always plays a part.



When communities understand risk, they can discuss what to do

- » To reduce the risk on the road, we can improve the roads. We can also lower speed limits.
- » Locals know local roads, and have a perspective on what needs to be done.
- » Communities can contribute to discussions about local risk and how to make their roads safer.



Stage 2: What's happening next

We are investigating a number of more complex improvements such as road realignments, passing lanes and slope stability improvements.

Road realignments

These ease unexpected tight curves on the highway making it safer. For example straightening the road where accidents have occurred or to allow more even travel speeds.

New passing opportunities

Installing new passing lanes and/or slow vehicle bays reduce driver frustration and improve travel experience. They are useful in places where trucks travel slower than other vehicles, eg on uphill sections of highway.

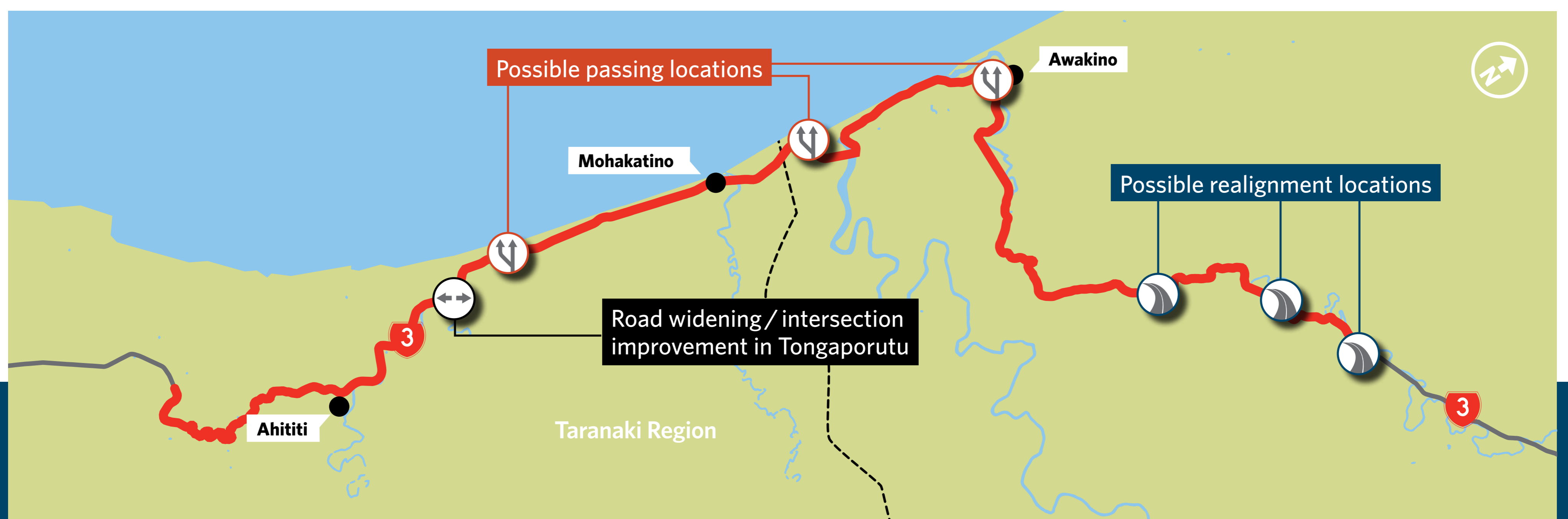
Slope stability treatments

Natural events cause 60% of road closures on this route. Making slopes more stable reduces highway closures and improves safety. We are assessing the highest risk areas on the route including rockfall and underslip (washout) sites.

Road widening and intersection improvements

These make the road safer for turning and through traffic. Improvements in Tongaporutu and other areas of greatest need are being investigated.

Although we'd like to do everything, the reality is we need to prioritise. We would like to hear your feedback. What treatments do you think are most needed on this route?



The location of possible options are shown on the map.

What's next for the Programme?

Following this consultation on the Programme options, we will consider all the feedback from the local community and other stakeholders.

Your feedback will be combined with other stakeholder information and technical analysis to shape the selection of options and final designs.

We expect to announce the preferred options and design work in the New Year.

Although funding is approved for the Awakino Tunnel and Mt Messenger bypasses, we still need to prepare resource consents and designation applications.

Construction for each project is estimated to occur during:

- » 2017 to 19 - Safety and resilience improvements
- » 2018 to 20 - Awakino Tunnel bypass Project
- » 2018 to 20 - Mt Messenger bypass Project.



Community engagement and next stages

