# 4 SH4 BULLETIN



The SH4 bulletin will be available monthly at selected sites in Raetihi, Ohakune and Whanganui. We encourage you to read about progress on State Highway 4 (SH4) and share it with your whānau. If you have questions about anything you see in the SH4 bulletin there are a range of places to find out more on the back page.

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Everyone has been greatly affected by COVID-19. It's changed how we go about our day-to-day lives, how we're able to spend time with our friends and family, and it's changed how we're able to conduct business. I thought I'd share with you a little about how Waka Kotahi NZ Transport Agency has operated, particularly under Alert Level 4, and update you on how we've been working behind the scenes on State Highway 4 projects.

The safety of our staff, contractors, and road users was always our highest priority and the decision was made to stop all non-essential work across the country, during this period, due to the risk of COVID-19 community transmission.

There are numerous projects, such as Peka Peka to Ōtaki and Transmission Gully, that were put on hold. State Highway 4 was no exception and work had halted on all non-essential construction along the highway, other than critical maintenance. See page seven of this update for more on State Highway 4 maintenance work.

While construction staff were unable to work, the government agreed to a range of financial compensation measures. This has helped to keep infrastructure staff employed and ensured projects around the country could restart as soon as restrictions lifted.

In the meantime, work has carried on in the background. Our planning and consenting teams, as well as administrative and communications staff from Waka Kotahi and our Alliance partner continued to work from home during the lockdown. Everyone's set up might have been different, and there can be challenges to working remotely, but this ensures we continue the momentum we've built.

We're working hard across Waka Kotahi to make sure our teams continue the background work that's so important to keep things moving in New Zealand. Like many of our colleagues, we're focused on being in the best position to resume the work on SH4, and around the country, once the COVID-19 restrictions are lifted.

For now, I'd like to thank you all for your patience and understanding. Please continue to follow all current government advice and help stop the spread of COVID-19.



Ross l'Anson System Management Manager -Manawatū-Whanganui & Taranaki

This update on SH4 is a re-work of the collateral we had initially planned on sharing with you at the (now cancelled) public engagement sessions. If you have any questions, please send us an email at **SH4@nzta.govt.nz** 

In total, eight options in three different corridors were considered as part of a longlist for a State Highway 4 replacement. In working through the strengths and weaknesses of the various options, we considered a number of factors. These included:



### Resilience in the case of a major event

We consider the option's ability to reduce the frequency of full road closure from a major event, such as landslides and earthquakes. This is a key issue for the project considering the local terrain, potential separation of people from facilities, services and social networks and the length of potential detours. A major event is considered as an event that could cause a full road closure for over a month.



#### **Network resilience**

We consider the option's ability to reduce closure frequency due to slips and traffic accidents caused by natural hazards such as rockfall and washouts. These are considered as an event that could cause a full road closure for over eight hours.



### **Cultural heritage**

This includes the effects on wāhi tapu and significant sites, waterways, cultural landscapes of value/significance to Mana Whenua and Ātihau, and on customary rights.



### Constructability (how difficult it might be to build)

The level of earthworks required, construction risks and the degree of difficulty are considered. It also looks at the potential disruption to existing services and utilities.



#### Landscape and amenity

We consider the option's ability to protect existing landscape features.



#### Water environment

How the option protects the existing waterways including Mangawhero River, tributaries and Whangaehu River.



### **Property owner implications**

The extent of property owners affected, and land acquisition required.



#### Protecting indigenous plants and animals

A measure of the impact the road would have on plants and animals in ecologically sensitive areas.

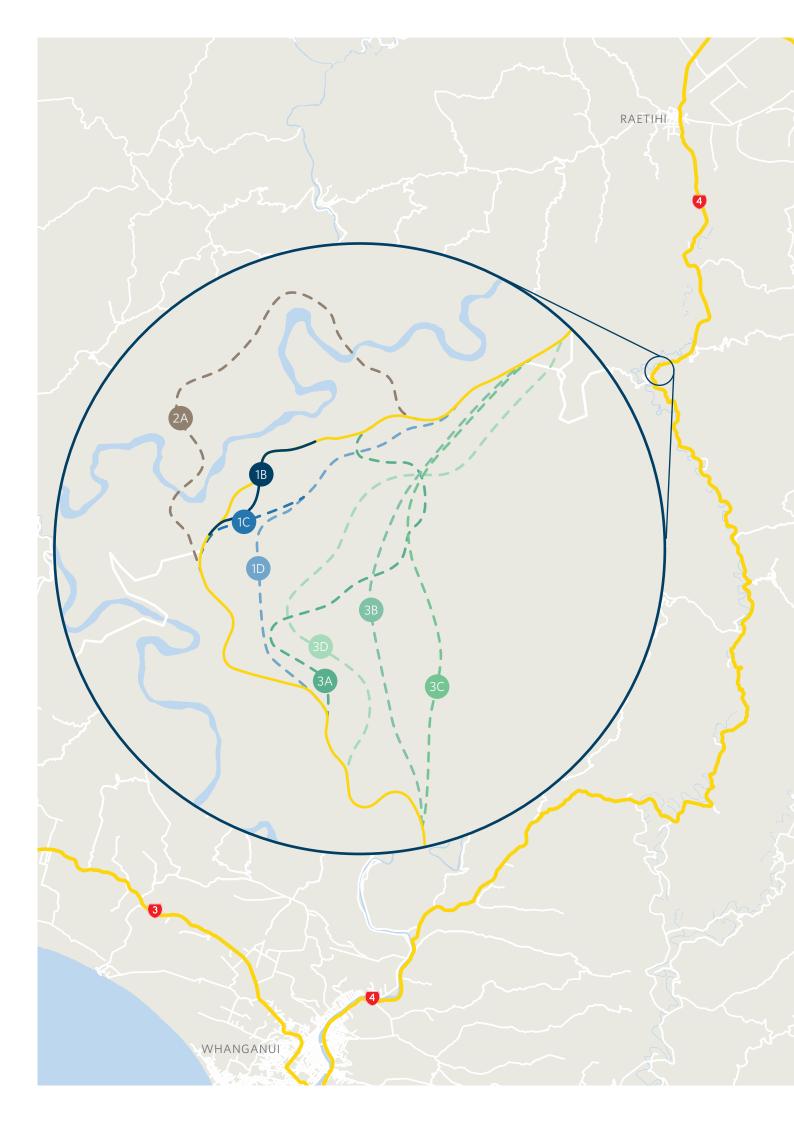


### Traffic and road safety

This looks at how the road alignment could affect journey experience and crash likelihood. It also looks at roadside safety.









#### Corridor 1

### **ROUTE 1B4**

**Reinstatement solution** 

More information on the next page.

### ROUTE 1C

To the east of the existing road, sidling up the southern slope of the Te Oreore Landslip. Length: **2.2km** 

This option was excluded because it would travel over already disturbed ground and involve steep cuttings through other active landslip areas. It would also have been close to a possible historic pā site.

### ROUTE 1D

Similar to Route 1C with a change at the southern end to avoid the 'pine block' landslide feature.

Length: 2.8km

This would be a lengthier route involving a series of long, elevated cut and fill sections

#### Corridor 2

### ROUTE 2A

Located on the northern side of Mangawhero River. Length: **3.6km** 

This option would have involved significant construction challenges. This included difficulty accessing the other side of the river before we could build any proposed bridges, creating significant challenges for the construction program. It also would have been problematic from cultural, ecological and resilience perspectives.

### Corridor 3

### ROUTE 3A

A route that deviates to the east and climbs steeply to the adjacent plateau. Length: **2.9km** 

This option would have had issues due to the tight curves and steep grades of the road. It would have also had a large impact on productive land in the area.

### ROUTE 3B

A longer route with similar elevation change to Route 3A, connections to the existing road are further north and south. Length: **3.6km** 

This option was rejected because of its potential impact on significant vegetation, landscape and waterways. Also because of its length it would have affected a number of properties.

### ROUTE 3C

A route similar to Route 3B to the eastern extent of the site.

Length: **3.5km** 

Like the previous option, this one would have had a significant impact on the landscape, waterways and affected a number of properties. The route would have harmed sites of cultural significance.

### ROUTE 3D

A route that travels through the middle of existing farmland.

Length: 4km

This option had a greater impact on existing dwellings, and a larger number of landowners.

### **ROUTE 1B4** Reinstatement solution. Length: 489 metres



The reinstatement solution for SH4 road is Option 1B4 which runs through Te Oreore slip. The assessment of this option showed that route 1B4 scored strongly with network resilience, reducing the frequency of road closures caused by natural hazards such as rockfall and washouts. SH4 is important for the communities that live and work along it so any long-term closure would affect locals, tourism, farming and businesses.

Route 1B4 also scored positively in protecting indigenous plants and animals. This would involve planting up around the slip area which will reduce potential sediment washing into Mangawhero River.

This option maintains the current path across the landscape, while making improvements to ground stability by lowering the groundwater levels. By removing water, we expect SH4 to become more resilient against future slips.

A number of geotechnical investigations have been completed on Te Oreore site. This has given us a clearer understanding of the factors that affect its stability, and what can be done to improve this.

### How we can improve safety:

- Remove water from most of the slip area to keep groundwater levels down, using a series of pumping wells positioned at strategic locations along the site
- Reinforce the base soil allowing SH4 to remain more intact during any future slope movement
- Perform ongoing land movement monitoring to observe the impact of groundwater level changes or earthquakes. This will require digging boreholes at a lower point to the length, and installing movement measuring instruments.
   Real time monitoring will relay information back to Waka Kotahi.
- Install a retaining wall along the slope to the north of the Te Orerore slip, providing more resilience to land instability. It would also involve erosion control techniques such as hydroseeding and planting in conjunction with landowners.

reducing risk of slippage



with dewatering wells

### **SH4 CORRIDOR UPDATE**

1 Te Oreore Underslip: All the physical work on the temporary road has been completed. This section continues to operate with a 30km/h speed limit.

Instrument monitoring and reporting for the site has continued. There will be a continued focus on monitoring Te Oreore during the winter period.

2 Raukawa Falls: The land acquisition, design and consent application processes are all underway. Over the period of lockdown the Ruapehu and Whanganui District Councils were unable to accept consent applications, so we've given priority to environmental effects and regional consents over this time.

3 Whiskey's Corner: Tree felling has been completed and earthworks were planned to be completed by the end of March prior to the nationwide lockdown. This work is currently being rescheduled but it's hoped work on this site can be completed quickly after COVID-19 restrictions have been removed.

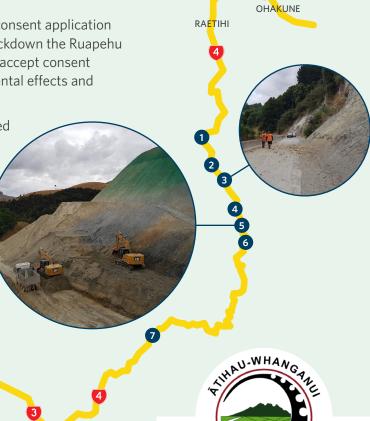
4 South Rapui Retreat: With recent developments in relation to COVID-19 and the impact on the overall corridor program, we expect the start date for this project to change slightly. Design is currently being reviewed by Waka Kotahi.

5 Otoko Pā Overslip:

All earthworks, drainage and slip-related work, and pavement preparation had been completed on the Otoko Pā Overslip site.

This site is ready for sealing, although due to the COVID-19 Alert Level 4 this work had to be put on hold. The program for this site is currently being revised, but we expect that once work does restart on the site there will only be a further 3 to 5 days work before the project is completed.

- 6 Hapokopoko Curve Rock: Work on the consent process continues with this site with the ecology report currently awaiting approval. Construction was expected to start in March 2020 before lockdown put this work on hold. With COVID-19 restrictions expected to loosen soon, a new completion date of late September has been set.
- **Kukuta Underslip:** The project construction design is still in its early stages for the Kukuta Underslip site, with COVID-19 restrictions placing limitations on this. The consent application process is underway. The site remains under one-way traffic lights.



WHANGANUI

# Acknowledgement to Ātihau-Whanganui Incorporated

ORPORATIO

We'd like to acknowledge the generosity and support we've received from Ātihau-Whanganui Incorporated (Ātihau) and mana whenua Ngāti Rangi throughout the process of building the temporary road, which runs across Ātihau whenua. The support we've received from Ātihau has enabled us to design and quickly build the temporary road, which we were able to open in time for Christmas.

### STAY SAFE, STAY HOME, SAVE LIVES

Previously under Alert Level 4 we continued essential maintenance and management of the state highway system to ensure the efficient and safe movement of goods and to support lifeline functions. Now with the move into Alert Level 3, we'll be reinstating all state highway physical maintenance activities, while still maintaining strict health and safety protocols for the protection of workers and road users.

When driving through worksites please continue to be patient and respectful and look out for the worksite contractor's safety and wellbeing. These people are stepping outside of their bubbles to do vital work to keep us safe.

During Alert Level 3, work on capital projects that were stopped under Alert Level 4 can re-commence. However, each project will need to follow strict health and safety protocols for workers and road users.

Each project that resumes will need to have a specific COVID-19 Plan to work safely at Level 3, which aligns with strict industry standards provided by Construction Health and Safety NZ.

The move back to on-site work will be different for every project across the country, and the timing will depend on the complexity of the projects. Some activity onsite can start straight away; however, it will take some time for sites and projects to be fully operational. And please be mindful that interregional travel restrictions may also impact some projects due to a limited workforce.

With New Zealand moving out of COVID-19 Alert Level 4 and into Alert Level 3, you're likely to see an increase in activity on the roads. However, the message to the public remains the same – please avoid any non-essential travel, keep all travel local, obey the road rules, and always drive

### **REGIONAL OUTLOOK**



There's been plenty of work carrying on behind the scenes in relation to Te Ahu a Turanga: Manawatū Tararua Highway project - the proposed new route replacing the State Highway 3 Manawatū Gorge route.

Prior to COVID-19 restrictions, we held three public information sessions for this project, in Dannevirke, Ashhurst and Palmerston North. Further engagement is in the works over the winter period.

Horizons Regional Council have also recently received public submissions on the main works resource consent application. And following the return to COVID-19 Alert Level 3, ground investigation work has restarted on the project.

Subject to consent approvals we plan to start enabling works on Te Ahu a Turanga later this year with main construction commencing in January 2021.

## WHERE CAN WE GET COPIES OF SH4 BULLETIN?

Ruapehu District Council offices

to the conditions.

Ohakune i-Site

Waiouru i-Site

Whakapapa Village i-Site

Ruapehu District Council -

Main Office

Raetihi Caltex Motors

Raetihi Farm Supplies

Raetihi Four Square

Raetihi Information Centre

Ohakune BP Service Station

Ohakune New World

Placemakers Ohakune

GAS National Park

Whanganui District Council

Whanganui Library

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Z-Dublin St Service Station

Whanganui

BP 2Go Service Station

Whanganui

Cafe 4Forty4 Whanganui

Whanganui i-Site

# For more information and updates, please visit nzta.govt.nz/sh4-repairs

Traffic updates: nzta.govt.nz/traffic Facebook: facebook.com/nztacni
Twitter: twitter.com/nztacni

Journey planner: journeys.nzta.govt.nz

Phone: 0800 4 HIGHWAYS (0800 44 44 49)

If you have a smartphone, open the camera app and hover over the code to the right then click the link once prompted on your phone.

