Issue no. 75 | 11 February 2019

# The Bulletin Kaikōura earthquake update

**SIGN UP**
To receive fortnightly updates online here
bit.ly/NCTIRBulletinSignUp

## NCTIR project information evenings

We hope you'll join us for a project update and to find out more about our safety and resilience work in 2019 at a NCTIR project information evening near you. This will be a great opportunity to talk to our team, have a look at our latest designs and share your thoughts.

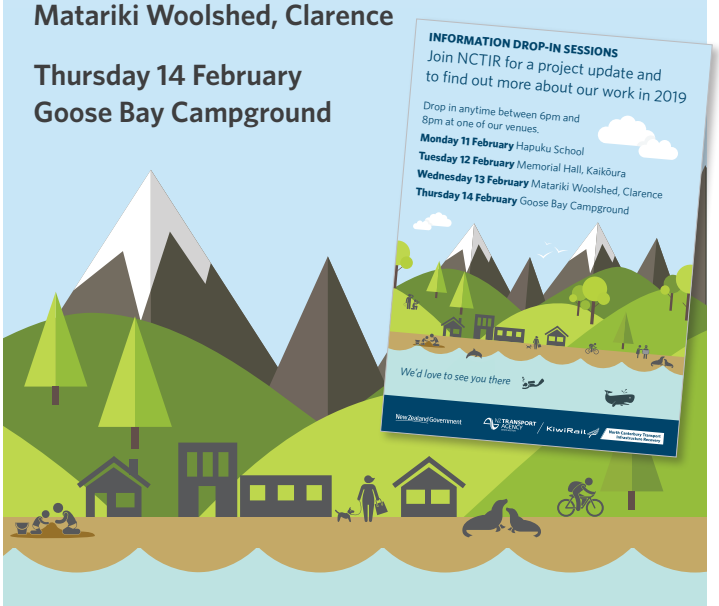
Drop in anytime between **6pm and 8pm** at one of our venues below:

**Monday 11 February**
**Hapuku School**

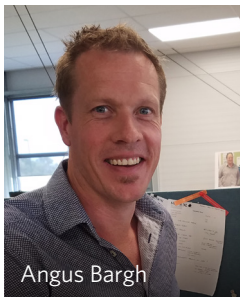
**Tuesday 12 February**
**Memorial Hall, Kaikōura**

**Wednesday 13 February**
**Matariki Woolshed, Clarence**

**Thursday 14 February**
**Goose Bay Campground**




## Keeping a close eye on journey times


Angus Bargh

After SH1 reopened in December 2017, NCTIR promised that traffic travelling between Picton and Christchurch wouldn't be delayed by an average of more than 45 minutes.

That promise is now the responsibility of our Transport Planning Manager, Angus Bargh, who works with our Programme Managers to minimise the impact of road works on traffic.

To calculate potential delays, Angus looks at the scheduled works and seasonal traffic volumes. When roads are busier, there are longer queues at each site and more traffic to manage through each stop/go, meaning a longer wait for vehicles coming from the opposite direction.

'In some cases, we can end up with over 120 vehicles in a queue,' says Angus. 'A short 400m single lane section adds a two-minute delay for traffic but a lengthy 2km section adds, on average, 12 minutes to journey time.'

Where works are likely to have a significant time impact, he talks to the team about changing their methodology or shifting work to a quieter time.

'If it absolutely must go ahead, predicting the delay ahead of time allows us to let people know their journey might take longer than normal.'

As a result, traffic delays average 20-25 minutes, peaking at 35-40 minutes between September and November 2018.

You'll probably never see him out on the road but rest assured that Angus and the team are there in the background, calculators in hand, helping customers enjoy a faster, safer journey.

This Bulletin provides the latest information about the rebuild of road and rail networks damaged by the Kaikōura earthquake in November 2016. The Bulletin is produced by the North Canterbury Transport Infrastructure Recovery (NCTIR) – an alliance representing the NZ Transport Agency and KiwiRail, on behalf of Government.

SH1 NORTH · SH1 SOUTH · ALTERNATE ROUTE · Kaikōura TOWNSHIP · RAIL · INLAND ROAD · ENVIRONMENT · PEOPLE

New Zealand Government · NZ TRANSPORT AGENCY WAKA KOTAHI / KiwiRail · North Canterbury Transport Infrastructure Recovery

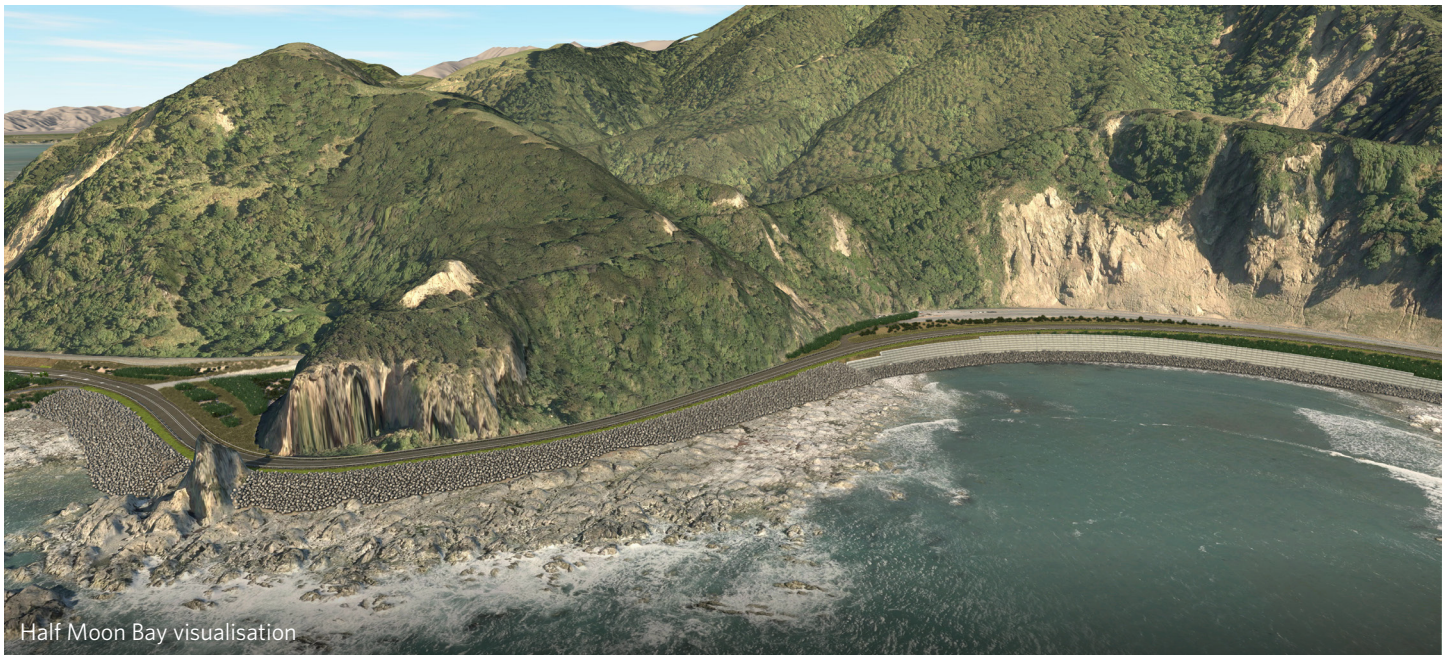
# Designing safer journeys at Rākautara and Half Moon Bay

North Canterbury road users can expect safer and smoother journeys around the coastline north of Kaikōura, with two road safer alignments underway at Rākautara and Half Moon Bay. With the realignments next to one another, the same project team of about 30 people will be working on both - widening shoulders, realigning the road and installing additional safety barriers to reduce the impact and severity of crashes. While both sites require safer road alignment to increase safety on the notoriously harsh corners, each has its own unique challenges and opportunities.

The existing seawall at Half Moon Bay has the Hope Fault running directly through it, and as a result experienced major damage in the 2016 earthquake. This meant special thought had to be given to the new design. 'This new seawall design incorporates construction joints every 20 metres along the seawall, allowing 20 metre sections to move without impacting the entire seawall,' says NCTIR Project Manager David McGoey.

The crew have already created access to the beach and begun preparation for the seawall foundation. Once the foundation work is complete, they will be installing the new seawall blocks. Along with improved safety features, the Rākautara realignment will feature landscaping, and a safe stopping area along the coast.

This project will be completed in late 2019. Until then, keep an eye out for our friendly Stop-Go workers managing traffic around the sites.



Half Moon Bay visualisation

Rākautara visualisation

# Progress in the north

SH1 NORTH

Bunds, gabions, terra mesh... north of Ōhau Point, a collection of odd words is being used to describe one of the Southern Hemisphere's largest retaining wall projects.

Since September teams have been using terra mesh (a type of modular retaining wall) to create a bund, or embankment, which will protect both road and rail from frequent rock-falls.

The 500-metre-long wonder-bund is being constructed in two parts, with both sections due to be completed by mid-March.

The project is extremely labour intensive, requiring rock to be placed by hand, but project manager Mike Reilly says the crews have done an incredible job in challenging conditions.

At Ōkiwi Bay, he says his teams have just completed drainage work.

'Now the team is underway building a 50 metre terra mesh bund wall, as well as a gabion wall (a retaining wall using rock-filled cages) and installing seawall blocks for rail and road protection on site,' he says.

Work got underway in October with the installation of a 15-metre-long rock fence, and has now progressed to full construction, with the project due to be completed by late March.

At Waipapa Bay, a 200-metre-long terra mesh bund wall is due for completion by the end of February. Although the road is back to two lane traffic, road users can expect occasional traffic management along this stretch of road, due to ongoing works.

And, on the seaward side of the rail, rock revetment work continues, with approximately three months of work remaining.


Ōkiwi Bay

# Completion after completion in the south

SH1 SOUTH

This awesome photo was taken from one of our helicopters at the end of last year, and shows abseilers hard at work drilling the final anchors just south of the Parititahi Tunnels. It was a one of the last steps needed for traffic to flow through both tunnels for the first time since the November 2016 earthquake.

Since joining NCTIR as part of a Downer internship, Canterbury University engineering student, Rory Geare, has made a big impression with the team.

'It's been awesome having Rory on board for a season,' says Site Engineer Liam Mulvihill.

'He's learned a lot, and explaining the ins and outs of such a huge project to him is a good reminder of all the work that goes into something like this.'

As Rory's internship comes to a finish, and he returns to university for his last year of study, he will be doing so with some practical knowledge, and the odd once-in-a-lifetime experience under his belt.

South of Kaikōura, an abseiler installs a bracket for a rope to support the SL150 barrier fence.

## KEEP UP-TO-DATE

Subscribe to our fortnightly bulletin by emailing **info@nctir.com**, with 'Bulletin' in the subject line.

South Island **www.facebook.com/nztasouthisland/**

KiwiRail **www.facebook.com/kiwirailNewZealand/**

## CONTACT US

Call our freephone: **0800 NCTIR EQ** (0800 628 4737) or email us: **info@nctir.com**