

KAIKOURA EARTHQUAKE UPDATE

KAIKOURA EARTHQUAKE UPDATE - no. 31

25 August 2017

This weekly bulletin provides the latest information about the rebuild of road and rail networks damaged by the Kaikoura 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. We're keen to hear your questions about our work, or any feedback on this bulletin. Drop us a line via email at info@nctir.com or give us a call on **0800 NCTIREQ** (0800 628 4737) - we'd like to hear from you.



UPCOMING CLOSURES TO STABILISE ROCKFACE ON STATE HIGHWAY 1 SOUTH OF KAIKOURA

Upcoming planned closures on State Highway 1, south of Kaikoura, between Peketa and Goose Bay, will enable essential work to be completed on the unstable slopes above the road to coincide with the reopening of SH1.

A longer five-day scheduled closure between Peketa and Goose Bay, from 4 to 8 September; the extension of the four-day week to the end of this year, as well as new works starting in the Hundalee, between Parnassus and Oaro, are needed to ensure the highway to the south is ready to be reopened to traffic by the end of this year.

The highway was opened for daytime hours last year before Christmas following the November earthquake which closed the road north and south of the town. However, a major new slip on the south side of SH1 in the wake of Cyclone Cook covered the highway at Easter, requiring more emergency work and more limited hours open to the south since.

The highway to the south has for most of this winter been open Friday to Monday during daytime hours.

The NCTIR alliance is working to reopen the highway north and south of Kaikoura by the end of this year.

NCTIR teams have been working closely with local residents to ensure they are aware of these upcoming closures and the reasons why they are necessary.

The highway will be reopened to traffic on Saturday 9 September, from 7am to 6pm through to Monday night.

These dates are subject to weather and tides which could delay the work, or if more work is required at a later date. Updates will be provided if there are any changes to the timeframe for work during the week of 4-8 September.





WEEKLY PEKETA TO GOOSE BAY OPEN/CLOSED SCHEDULE EXTENDED UNTIL END OF YEAR

The regular weekly open/closed schedule, Friday to Monday daytime hours, 7am to 6pm, for State Highway 1 south of Kaikoura will continue until December.

This will allow the 100-plus crew members working in this narrow corridor, between the cliffs and the sea, to complete the rebuild and resilience work needed to get the highway reopened by the end of this year.

Crews are working to ensure the four-day, daytime hours open schedule is maintained until the full highway reopens, barring weather-related events or other emergency works.

The schedule allows people to travel to and from Kaikoura from the south by the most direct route four days of the week and supports weekend events in the town.



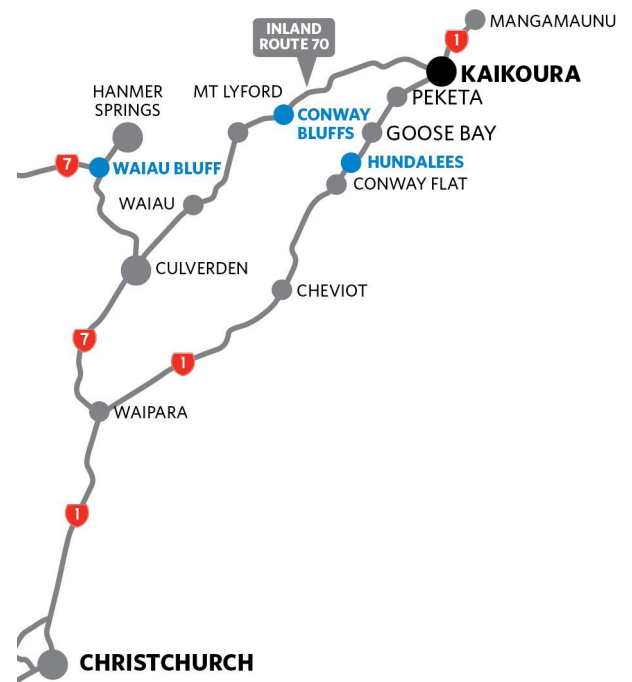
WORK ON THE HUNDALEES - SH1 SOUTH

There is a significant amount of work to repair the stretch of State Highway 1 in the Hundalee. Preparation work has begun at two sites for a crane which will be installing large steel beams and timber retaining walls behind the damaged gabion retaining walls that support the road.

Traffic impact: During this initial phase a one-lane 'stop/go' will be used for traffic with up to 20 minute delays. Once the crane starts working in this tight road space, there will likely be further delays. Details to be confirmed.

If you are traveling through this area to Kaikoura between Friday and Monday when this section of the highway is open, please remember there are also delays between Goose Bay and Peketa.

Work in the Hundalee is expected to continue right through to the end of the year.





LEWIS PASS AND WAIUAU/ MT LYFORD ROAD DRIVERS - BRIDGE BEAMS BOUND FOR KAIKOURA SHARING THE HIGHWAY THIS WEEK

From this week, drivers have been sharing the road with 28m (bumper to bumper) truck loads moving bridge beams to Kaikoura, via Lewis Pass and the Inland Road (Route 70) via Waiiau/ Mt Lyford.

The beams are heading to Irongate, north of Kaikoura for a new bridge build, as well as smaller bridge sites north of Kaikoura.

At Irongate, just north of Blue Duck and Mangamaunu, a 144m long bridge is being built on State Highway 1. The beams will travel from Rotorua, across to Picton and then travel down through the alternate Picton to Christchurch route via Lewis Pass, before heading north up the Inland Road (Route 70) to Kaikoura.



Some minor delays can be expected because of the length of the load and the slow and winding nature of parts of the Lewis Pass route and the Inland Road (Route 70). While the majority of the beams will be used at Irongate on the currently closed section of SH1, they will also be used at five other bridge sites in the rebuild area north of Kaikoura.

There are about 120 bridge beams to be transported over coming weeks for bridge building along State Highway 1, north of Kaikoura.

Irongate new bridge site, SH1, north of Kaikoura

The rock bluff above the rail tunnel has been dug out using an excavator and a rock saw to create a slope where the southern bridge abutment (where the bridge meets the road) will be built. The crew is currently halfway through excavating the bluff to road level with construction ready to start on the bridge columns and the pier heads. A team of 50 is working on the 144m bridge to have it ready for the reopening of State Highway 1 at the end of this year.

**** correction In the 11 August edition of the Bulletin the new Irongate bridge was incorrectly described as being 80m long. This bridge will be 144m long.**



UPDATE FROM THE PINES



The Pines passing lanes at Waipapa Bay were severely damaged (pictured above) by not one, but two five metre vertical uplifts in the Kaikoura earthquake. The crew has been working hard to get the road ready for traffic by Christmas and allow safe passage for the teams working south of the area.

The crew at The Pines have finished the northern earthworks, changing a post-earthquake single-lane goat track to a surface ready to build a three-lane highway on. The crew has no time to celebrate though, as there is still a 3mx2.5m box culvert to install and another 150m of earthworks to build before laying 1.5km of roading material ready for surfacing.

IRONGATE UPDATES – PROGRESS NORTH

Over the last four months, Jethro Staite (pictured) has watched the Irongate coast north of Kaikoura begin to transform into a new highway.

Jethro is the foreman leading his crew battling the elements building seawalls, on site every day, no matter the weather. When constructing the foundations for the seawalls, Jethro's crew only had a few hours each day during low tide when they could pour concrete. He says the sudden tidal changes can be frustrating and disheartening for the crew on the ground.

He says it was made clear to the crew from the start this was never going to be an easy job.

'It's not always fun when you're working in the rain but we've got a job to do and reopening the road is what we are here for,' says Jethro.

Life working in this challenging environment is getting easier, as the days are getting longer and warmer and with the second layer of blocks now being laid the crew are more often out of the water than not.

'Morale is getting stronger on site as we start to make visible progress. We had already achieved a lot but the foundations were often under water. Now that our blocks are being placed you can really appreciate all our hard work,' Jethro says.

As part of the Government's improvement package investment a shared path will be built on top of the seawalls and Jethro will be one of the first lining up to cycle the route.

'How can I not be the first to ride the road that I've built? I can't wait!' he says



HOW DO YOU CATCH 'AT RISK' LONG-FIN EELS? WITH CAT FOOD, THE STINKIER THE BETTER

Many of the streams and rivers in the Kaikoura and Hurunui areas are home to a diverse range of freshwater fish, and looking after them is part of the transport recovery effort.

NCTIR's ecology team work in collaboration with construction crews to ensure environmental responsibilities are met while quake-damaged bridges are repaired.

A fish trapping operation took place when repairs to the rail bridge over Swan Creek, north of Kaikoura, got underway. In order to fix cracks in the bridge piles, the creek needed to be partially dammed to create a dry work area in the riverbed around the piles' base.

Barriers draped with tarpaulins were used to divert the creek away from the piles (see pictures).

Site engineer James Kelly then called the ecology team in to do a spot of fishing.



In the evening, the ecology team set nets and traps within the dammed area so fish could be caught overnight before the water was pumped out the next morning.

Funnel-shaped eel nets – known as fyke nets, or hinaki in Maori – were used to catch eels. In this case, small tins of cat foot were used as bait to attract eels, which hunt by their sense of smell. Holes in the net allow smaller fish to escape before they are eaten by the eels.

When the nets and traps were checked the next morning, three ‘at risk’ and declining native fish species were among the catch – including longfin eels, redfin bully and inanga (a whitebait species). The fish were identified, measured and then released.

‘It shows how effective it can be, it’s been a worthwhile effort,’ says NCTIR freshwater ecologist Dr Tanya Blakely.

‘We’ve categorised all the waterways in the NCTIR area, from the Waiau River in North Canterbury to the Wairau River in Blenheim, as well as along the Inland Road.’

‘Many of the bridges damaged in the earthquake cross waterways that have high ecological values. The aim is to minimise the number of fish deaths during repairs.’

James Kelly said the repairs to the bridge at Swan Creek involved sealing cracks in the bridge piles and wrapping them in carbon fibre so they will be stronger and more resilient into the future.



ALTHOUGH CONSTRUCTION CAN BE DIRTY AND DUSTY BUSINESS, MANAGING THE EFFECTS ON THE ENVIRONMENT IS AN IMPORTANT PART OF THE INDUSTRY



The latest Environment Canterbury environmental audit found that NCTIR sites north of Kaikoura, between Mangamaunu and Ohau Point, were fully compliant with resource consents.

The early August inspection specifically looked at a number of practical ways the NCTIR team are working to prevent discharge from entering streams or the sea.

To help keep roads clean, a wheel wash has been installed at Mangamaunu and trucks are required to use it as they leave the construction zone. The wash water is recycled, and by-wash and sediment is captured in small containment ponds.

A lot of concrete is being poured as seawalls are being built – a pour at low-tide at a single site can see 40 concrete trucks deliver loads within a few hours. The bottom right photo shows the wash-out facility that’s been installed at Rakautara. It means the trucks leave the site clean and that concrete residue can be disposed of in an environmentally-sound way.

At Ohau Point, ‘cells’ for the pouring concrete foundations for seawalls are well-contained from the sea to prevent discharge into the Coastal Marine Area (see top right photo).

Other highlights from the audit include:

- Site specific erosion and sediment control plans are in place for slip 2 at Irongate stream and for slip 6 at Ohau Point.
- Temporary stockpiles at Blue Duck Stream and Mangamaunu are bunded, with no evidence of discharges onto the beach area. These stockpiles are progressively being reduced in size as material is sorted, stored for reuse, or removed to permanent sites.





RAIL SAFETY SCHOOL VISITS

Rail engineering manager Peter Dautermann and projects manager - Kiwi Rail corridor Clark Butcher (pictured) took an opportunity during last week's Rail Safety Week to spread the safety message to some of the schools in Kaikoura.

Peter and Clark talked to the children about the work fixing the rail line after the earthquake and that 'trains are back now, so watch for trains, take your headphones out and listen.'

'Be aware of railway level crossings where there are no red signals or boom gates. Always be alert, stop, wait and listen,' Peter says.

This year's Rail Safety Week campaign focused on the dangers posed by devices, such as smartphones and headphones.

TrackSAFE NZ's Foundation Manager Megan Drayton says people are often on autopilot when they're familiar with an environment and don't remember to look up from their phones or remove their headphones.

Work trains and other vehicles are operating on the line between Christchurch and Picton and freight trains will soon be on the route.



KAIKOURA LOCAL HELPS MAKE THE VILLAGE "HOME AWAY FROM HOME"

Ann Le Breton has lived in Kaikoura all her life, and she is doing her part to get her hometown back on its feet.

'I love it here,' she says. Now Ann has a job cleaning rooms at the NCTIR Village, where her long-time friends Kevin and his daughter Anna Keehan both work in security. Ann has also made new friends at the village, with other locals, and a few tourists as well.

Making new friends and having steady work is great, but the journey hasn't been easy. Ann lost her job after the November earthquake and her house was damaged as well.

'The family heirlooms and antiques that can't be replaced, that is the hardest part,' she says. But we've got our family intact and that's the main thing. It also feels great to be helping my hometown.'

Ann started working for the NCTIR Village in May. 'I have been a part of the village since they first started setting up cleaning services, and it has been amazing to be a part of such a huge scale project.'

The systems put in place, such as using golf carts to move between units carrying cleaning products and linens, have made the work flow smoothly.

The team cleans about 120 rooms daily, and tasks range from emptying rubbish and changing towels and linens, to cleaning toilets and showers. "It is satisfying to see things clean, having the rooms tidy for the workers after long days and nights of hard work. And so many people leave lollies and thank you notes in the rooms for us, it's amazing! They really appreciate the work we do, and we really appreciate them."





HELPING A GOOD CAUSE



Kaikoura's Daffodil Day was at risk of nearly being cancelled this year due to a cold winter and late blooming flowers, but thanks to the help of the crews repairing State Highway 1 and the Main North Line it is set to be another community success.

Daffodil day is close to Alison Lilley's heart. As a breast cancer survivor she knows only too well how horrible the disease can be, she lost her best friend to it three years ago and has nursed many Kaikoura cancer patients over the years.

'It's a nasty disease, there aren't many families it hasn't touched,' she says.

For the last 12 years Alison has been a member of the Kaikoura Cancer Support

Group and has been volunteering to sell daffodils and raise money to help assist Kaikoura District patients fighting cancer. This year harsh winter conditions have meant tens of thousands of daffodils are yet to bloom in the district and the global symbol of hope is in short supply.

'I was worried we wouldn't have any daffodils to sell, this annual collection is so important,' she says.

Usually Kaikoura's daffodils are boosted with extra flowers from the Clarence Valley, however with SH1 north of Kaikoura closed for earthquake repairs a different strategy was needed.

A helicopter bound for the north dropped off workers yesterday to pick up boxes filled with the flowers from Clarence and Kekerengu so Daffodil Day could continue as normal. Pictured above is Maryanne Bell from Clarence with helicopter pilot Peter Watts.

'I think it's absolutely wonderful that they could help, they're doing a great job on the roads and we really appreciate this extra help.'

NCTIR Logistics Manager, Kevin McGrath says the organisation was only too happy to help out.

'We are proud to be able to support the Kaikoura District and play our small part in making sure Daffodil Day continues as normal.'

He says the helicopter was already enroute to the community dropping off abseilers and other workers repairing SH1 and the Main North Line, it made sense to pick the daffodils up on the way back. Maryanne collected daffodils from properties in Clarence and Kekerengu and these joined several buckets picked in Kaikoura and Oaro for the Daffodil Day sale.

'We do this every year, our group is very grateful for the support of the residents and NCTIR so Daffodil Day can continue as normal.'

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- Subscribe to our weekly bulletin by emailing info@nctir.com, with 'Bulletin' in the subject line.
- Visit our website: www.nzta.govt.nz/kaikoura-earthquake-response/
- Call our freephone: **0800 NCTIR EQ** (0800 628 4737)
- Email us if you have a question: info@nctir.com
- Attend a community meeting - keep an eye on your local newspapers for details.
- Follow us on Facebook, see: NZ Transport Agency - South Island www.facebook.com/nztasouthisland/ and KiwiRail www.facebook.com/kiwirailNewZealand/
- For travel information about road conditions, see: www.nzta.govt.nz/traffic/regions/11

ALTERNATE ROUTE NEWS

The closure of State Highway 1 (SH1) and the Main North Rail Line between Picton and Christchurch following the November 2016 Kaikoura earthquake means traffic now needs to use an alternate route via the alpine Lewis Pass. This route is, in parts, winding, narrow and challenging and has seen a four-fold increase in traffic which it wasn't designed for. A \$60m Government investment has been made to make this route safer and more resilient.



IMPROVEMENTS SUPPORTING SAFE AND COURTEOUS TRAVEL

A sudden four-fold increase in traffic on the alternate Picton to Christchurch route followed the Kaikoura earthquake. This road was never designed for this volume of traffic and there has been a heavy focus on improvements to support safe travel for all. Particularly where long lines of traffic can quickly build up, along with driver frustration.

Part of the \$60m government funded improvement package includes both upgrading and installing around 50 pullover areas and stopping bays:

'Traffic courtesy signs' (pictured) are currently being installed as a trial at about 15 of these areas. While they have been trialled in other parts of New Zealand, they're not standard across the country and many drivers may not be familiar with them.

Once installed, they will be monitored around how drivers respond to them and if their driving behaviour demonstrates safe use of the pullover areas.

Around three quarters of the pullover areas and stopping bays are now complete. While some work has been done over winter, further sealing and finishing work can now start to be scheduled in with the longer days bringing warmer and dryer weather.



SPRING SPRUCE-UP ON SIGNS

Harsh winter conditions not only have an impact on the road surface, it also can see road markings and signs quickly deteriorate so they're no longer as visible as they need to be to aid safe travel.

Regular drivers on the alternate Picton to Christchurch route may have noticed the signs at one lane Hutchisons Creek Bridge on State Highway 65 (pictured) recently upgraded, along with signage at the Ruffe Creek Bridge on SH65. While this work is underway, there will likely be minor delays for travellers who are thanked for their patience and support.





DEPARTING WINTER NO TIME TO LET GUARD DOWN

Warmer spring days bring blossoms and lambs to admire on our travels. But winter can still have a nasty departing sting in its tail.

The NZ Transport Agency warns that this time of the year is traditionally one of the most dangerous times on our roads. Drivers need to stay vigilant and ensure their vehicles remain fit for winter conditions:

- Check tyre treads have at least 3mm of tread for winter driving. Check tyre pressures at least every fortnight.
- Check brakes are in good running condition.
- Check lights all work regularly so you can see and be seen.
- Check your windscreen wipers and replace worn wipers.
- Clean windcreens, inside and out, to reduce low sun dazzle.
- A flat battery is the most common cause of winter breakdowns. If it's more than five years old it may struggle in the cold. Get it checked and replaced if necessary.
- Check coolant level regularly. If required, top-up with a mixture of the correct type of antifreeze. Your garage should check concentration to ensure adequate cold temperature protection.
- Keep at least a quarter of a tank of fuel in case of any unexpected delays.

Driving on the alternate route between Picton and Christchurch during winter may, at times, be extremely treacherous on parts of the highways that are exposed to extreme weather conditions. Check road and weather conditions before you start your trip:

- www.nzta.govt.nz/winterjourneys
- 0800 4 HIGHWAYS (0800 44 44 49)



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By phoning **0800 4 HIGHWAYS** (0800 44 44 49)

On the Transport Agency's social media: www.nzta.govt.nz/contact-us/connect-with-us/

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Expect trains

**Work trains are now
running day and night
between Blenheim and
Christchurch**