

# KAIKOURA EARTHQUAKE UPDATE

KAIKOURA EARTHQUAKE UPDATE - no. 18

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This weekly bulletin provides the latest information about the rebuild of road and rail networks damaged by the Hurunui/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](mailto:info@nctir.com) or give us a call on **0800 NCTIREQ** (0800 628 4737) – we'd like to hear from you.

## STRANDED ENGINES ON THE MOVE - 40 % OF WORK TO GET FREIGHT MOVING NOW COMPLETE



Photo credit: Peter Dautermann KiwiRail/NCTIR



KiwiRail brought in a 132-wheel transporter to tackle the huge job of moving two 102-tonne locomotives that were stranded by the Kaikoura earthquake. The engines had been stranded on a stretch of track between Hapuku and Rakautara – North of Kaikoura – since November.

The first of the locomotives was lifted onto the transporter on Thursday and taken to Kaikoura. The other made the same journey on Friday.

"This is another sign of the good progress we are making in getting the line open again as soon as possible. More than 40 % of the work needed to get freight moving again is now complete," KiwiRail Group General Manager Todd Moyle says.

"The Main North Line is an important part of our network and before the earthquake more than a million tonnes of freight was moving over the line each year."

KiwiRail Engineering Manager Peter Dautermann says moving the locomotives was a massive job. "A team of specialists was needed to manage the shift. The logistics involved in preparing to move these locomotives is enormous," he said. The locomotives can now get 'back to work' helping with the job of rebuilding railway tracks.

## HIGH PRAISE FOR THE TEAM FROM RICHIE MCCAW

Team morale was high at the end of last week following a surprise visit from Richie McCaw, co-owner and pilot at Christchurch Helicopters.

Richie was in Kaikoura for more than an hour last Friday to visit the project's Kaikoura site office and the NCTIR temporary accommodation facility, where he boosted morale speaking about keeping focused on the alliance goals and to continue to pull together as a team.



"Spending time with the team on the ground in Kaikoura gave me an appreciation of the mammoth task ahead of everyone,' Richie said. 'The dedication and focus of the site team was clearly evident and I could see they are doing everything to achieve the targets that have been set," he added.

Richie flew helicopters around Kaikoura assisting with the initial emergency response following the earthquake in November 2016.

"Having Richie visit was a huge motivation for the NCTIR recovery team here in Kaikoura. It was a great surprise and was very interesting listening to him relate team work and leadership back to his time playing rugby," Kaikoura-based NCTIR team member Kylie Cloke said.



Photo credit: NCTIR staff

## REOPENING SH1 SOUTH OF KAIKOURA



State Highway 1 between Peketa and Oaro south of Kaikoura is expected to remain closed until the end of the month to finish the building of a temporary road and rail alignment around the base of a large landslide that came down during April's cyclones.

The 300-metre road and rail diversion around the bottom of this large landslip is being worked on during all available daylight hours. This includes raising the surface of the rocky beach by four metres to provide a shelf for the new road. The 'cutting-in' of the ramps has begun to connect the new road to the existing one. A bitumen spraying machine is also scheduled to arrive on site next week followed by the final step of applying stone chips to the new section of road.



Rock armour is currently being placed on the seaward face of the new embankment for protection from coastal erosion. Rail tracks will also be diverted around the toe of the slip, alongside the new road. This is in preparation for the arrival of the engineering train due to be on site at the end of the month. This will travel between Oaro and Peketa in the short term to assist with recovery works.

Earthworks around Tunnel 13 (just south of Peketa) are nearing completion with teams beginning work on repairing the tunnel's lining. Large scale slope stabilisation works above the road and rail are continuing at pace along the whole coastal section south of Kaikoura.

## THE INLAND ROAD'S WANDLE BRIDGE DEMOLISHED

The Wandle River Bridge on the scenic road to Kaikoura Inland Road (Route 70), via Waiiau/Mt Lyford was demolished on schedule Monday night, making investigations on the existing foundations now possible, and ultimately the construction of a new bridge, to begin.

Despite this demolition the Inland Road is open and traffic will continue to use the Bailey Bridge that was put in place after the November earthquake.

The demolition of the old bridge required careful planning and coordination because it was so close to the Bailey Bridge. Two cranes were used to first lift the Bailey Bridge away from the fall zone of the old concrete bridge before demolition could take place.

A 36-tonne and two 20-tonne excavators were then used to demolish the old bridge with the Bailey Bridge returned to its position in time for the road to reopen on Monday, 22 May at 7am as planned.



Photo credit: Marcus Gibbs

Any traffic needing to use the road during the demolition time was diverted to an existing track used by heavy vehicles. The work crews thank residents and members of the public for their patience during this operation.

## CLEARING THE SLIPS NORTH OF KAIKOURA

Earthwork records continued to tumble with one of the alliance teams working on slips north of Kaikoura clearing a massive 7000 cubic metres in a single day last week. This came hot on the heels of the previous day when a whopping 5000 cubic metres (300 truckloads) was removed.

Approximately 60% (372,788 cubic metres) has now been removed from these slips. Earthworks manager Gary Ikin says it is important to keep this amount in perspective.

Immediately after the earthquakes the northern slips were estimated to carry 353,000 cubic metres. Sluicing, weather events and other factors have caused this original volume to have nearly doubled to 623,273 cubic metres. The earthworks team are working hard to clear these slips.

## HI TECH DREDGING HAPPENING IN THE KAIKOURA HARBOUR



Photo credit: Anton Drazovic NCTIR



Photo credit: Marcus Gibbs NCTIR

The latest in hi-tech satellite technology is being used to dredge the Kaikoura harbour ensuring it is cleared as efficiently and precisely as possible. This has allowed solid progress to continue to the point where dredging is now complete in the coast guard channel and the outer harbour.

In the Kaikoura harbour the seabed rose by more than two metres making access to the South Bay Marina and the Coastguard boat ramp impassable. This has had a huge impact on the marine and tourist businesses in the region.

Seatools is an electronic dredging system that allows operators to know in real time exactly where their bucket is underwater, where it needs to go, and whether it has cleared what was needed.

To make sure it does not bump into beacons, wharves or the foreshore, satellite receivers on board the dredging vessel give out this important hydrographic information as well as the extent of dredge areas, pre-dredge seabed contours, and most importantly where the machine is relative to the features.

Most of the material on the seabed that needs to be removed has used land-based excavators building bunds from the dredge material out into the harbour.

These are important steps forward in the restoration of harbour facilities. The alliance thanks the many harbour users for their support and patience while these essential repairs progress.

The Dolphin Encounter and Whale Watch are open.

## RAIL UPDATES

### Claverley Bridge 95

Reinstatement work is now complete at Railway Bridge 95 on the Main North Line, where it crosses the old Claverley Creek. The track has been re-laid and is ready for the massive work trains to arrive. Repairs to the rip rap river protection work - to protect the bridge embankments during high water events - is also now underway.

Work trains have reached Ferniehurst and are on their way to Claverley.

12 May marked a major milestone for the re-instatement of the Main North Line when a work train was able to pass over Bridge 90 at Boundary Stream, just north of Ferniehurst. This is the first major rail bridge site to have a work train.



Photo credit: Dylan O'Connor NCTIR

## Progress at Tar Barrel, near Mirza Creek

The 700m of railway tracks at Tar Barrel near Mirza Creek are now realigned and ready for the work train to come through. Completing this project has been critical to the rail programme because it means work trains can move through and help prepare the coastal corridor from Ward to Clarence. Congratulations to the rail crews who have worked hard day and night (under lights) to make this milestone.

The following photos show progress at the site.



### What is a work train and what do they do?

Work trains lay the ballast that forms the track bed upon which railway sleepers are laid. They also help deliver other materials to site like rails and sleepers. The work train is followed by a tamper track machine which compacts the ballast under the sleepers and corrects the track alignment.



## Update at Pines



Bulk earthworks have been underway at Pines north of Waipapa since April to repair this 700m long damage site.

The up thrust caused by the November earthquake at Pines caused a section of the road and rail to end up much higher than the surrounding area. The preparation work - which includes cutting, filling and compaction - is taking place at the northern end of this up thrust area and design work has now been completed for the 400m southern section where work will start shortly.

Large box culvert units, measuring 3 metres by 2.5 meters and weighing 17 tonnes each, are currently being manufactured in the south, and the first of 10 units are expected to arrive onsite next week. There will be a total of 21 culvert units, and installation is due to start in the next few weeks.

### Watch for work trains

Work trains are operating along the rail corridor between Christchurch and Claverley and between Picton and Mirza. Please take care and stop to check the line before crossing. Work trains will soon be operating between Claverley and Oaro and between Mirza and Wharanui.

It means that the public and KiwiRail's neighbours will need to be careful around level crossings. Hi-rail vehicles - trucks that go on rail - and work trains will be moving up and down the line constantly and people should treat the corridor as 'live.'



## LIFE BETWEEN THE LANDSLIDES

Sharing the road with heavy construction machinery is a daily occurrence for a handful of residents living south of the checkpoint at the Clarence Bridge.

Gig and his partner Marg have lived in their stone clad home since the 1970's and an earthquake wasn't about to send them packing.

"We can't think of a nicer place to live in New Zealand, why would we want to move?"

With five sheep, three horses, a dog and native birds in the trees, the couple lived a picturesque lifestyle until last November's earthquake hit.

It 'hammered' their home, nothing was left standing, the fridge and stove both toppled in the shake that was 'so violent we couldn't move.'

But there are pluses for these lifestylers, they say the earthquake created a new surf break in just two minutes. They can't reach the beaches south of Kaikoura but now they have a beach all to themselves.



When they bought the property, stone mason Gig carted around 7500 stones from the Clarence River to clad the front of the house. Now their home needs repairs and every single stone will need to be removed.

Its yellow stickered so they can't stay there at night, however, they plan to fix up the shed at the back of the property which they are currently living in to make it more homely for the winter.

The couple say the communication with the earthquake repair teams has been great and they are enjoying seeing the progress as construction machinery continues to bite away at the landslides north of their home.

## KEEPING UP APPEARANCES - WHAT TO EXPECT OVER THE WINTER

With more than four times the normal traffic volume on the alternate route between Picton to Christchurch, extra care is needed during the winter months. Following the Kaikoura earthquake and closure of State Highway 1, the government allocated an additional \$60m to improve this important alternative route. More than half was spent over an extensive and very busy summer programme including road widening, safety barriers, safe pull-over areas and surface improvements, among others.

With winter on our doorstep, regular drivers will know the roading activity has now reduced. Winter makes it difficult for any major road works as conditions aren't warm or dry enough for road seal to set. Winter is also the enemy of our roads. Cold, icy and wet weather, along with heavy traffic use puts roads under significant pressure. Cracking road surfaces can see potholes quickly appearing and road edges crumbling.

To address these challenges, the NZ Transport Agency has extra crews and resources focused on keeping the road safe and serviceable for users. Ongoing patrols with a 'find and fix' approach are feeding into the busy ongoing winter maintenance programme. And with the alpine Lewis Pass also part of the route, the crews have a 24/7 response plan to manage and clear ice and snow so roads stay open as much as possible.

Towards the end of winter, the focus will change again. Warmer settled weather from September onwards will see the road improvement work ramp up again.

If you believe there is a pothole or other road damage which needs attention, please contact **0800 4 HIGHWAYS** (0800 44 44 49)

**WINTER  
JOURNEYS**  
**BE SAFE. PLAN AHEAD.**

## DRIVERS BE PREPARED

Travellers on the alternate route between Picton to Christchurch crossing the Wye River this week in Wairau Valley, will have found themselves unexpectedly delayed, and then diverted away from the bridge to ford the river. A truck crash early last Sunday morning damaged and closed the Wye River Bridge. Traffic on both sides was held up initially until the nearby river ford was opened by NZ Transport Agency. Stop/go assistance provided a safe crossing for drivers to continue their journeys this week until the agency engineers were able to inspect and then design a temporary repair to reopen the bridge.

Driving in winter conditions and with fewer sunlight hours can be treacherous at times and in places on the Alternate Route between Picton and Christchurch. A single incident like this can delay other road users on the route, which is why it is important for all drivers to be prepared.

The Transport Agency's Winter Journeys campaign is focused on helping drivers have a safe and enjoyable journey. That includes ensuring your vehicle is ready for winter driving, knowing how to drive in alpine conditions, checking your route before travelling, and taking food, water and warm clothing /bedding in case of unexpected delays.

If you're using the alternate route this winter, please 'know before you go' so you're prepared for an enjoyable trip:

- Be prepared for winter: [www.nzta.govt.nz/winterjourneys](http://www.nzta.govt.nz/winterjourneys)
- Latest traffic and travel updates: [www.nzta.govt.nz/traffic/](http://www.nzta.govt.nz/traffic/) or call **0800 4 HIGHWAYS** (0800 44 44 49)

## FIRST RESIDENTS MOVE INTO THE KAIKOURA VILLAGE

The temporary accommodation facility reached a milestone this week with the first residents moving in and giving it a big thumbs up. Towards the end of this week 49 people have been able to move into the temporary village which has capacity to house 300 out-of-town people. The balance of the workforce of over 400 people will stay with local accommodation providers.

Michaela Krajickova (pictured), a labourer working north of Kaikoura, has been on the project for three months and says she loves her room and looks forward to connecting with others who will eventually be based there. Truck driver John Thompson (pictured) from Christchurch is also very pleased with his new home away from home. John says, "It's great, fantastic. Nice and warm, what more could you ask for."

More information about the facility can be found in a 'Q and A' on the NZ Transport Agency's website: <http://bit.ly/KaikouraAccommodationVillage>



## KEEP UP-TO-DATE

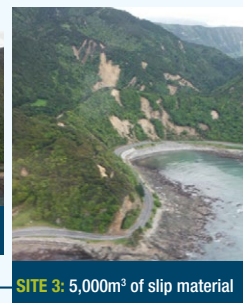
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- For travel information about road conditions, see: [www.nzta.govt.nz/traffic/regions/11](http://www.nzta.govt.nz/traffic/regions/11)



TO BLENHEIM ↗

↙ TO KAIKOURA



*Please note: Map is indicative only*