

KAIKOURA EARTHQUAKE UPDATE

KAIKOURA EARTHQUAKE UPDATE - no. 15

5 May 2017

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 or give us a call on **0800 NCTIREQ** (0800 628 4737) – we'd like to hear from you.

MILESTONE: SEAWALL FOUNDATIONS LAID



The construction of new seawalls on the Kaikoura coast is underway – this work will allow the North Canterbury Transport Infrastructure Recovery alliance to reinstate State Highway 1 and the railway.

Building seawalls requires careful planning: the construction crews must work when the tides allow. The crews use excavators to place 15 to 20 huge sandbags – each weighing more than two tonnes – so the worksite stays dry while the concrete foundation is poured. When the foundations are set, pre-cast concrete blocks (2m wide, 1m high) are placed on top and tied together to form the seawall.

The completed seawalls will eventually stretch along about 2.5km of the coastal transport corridor. These photos show the very first section of seawall being built last week, just north of Kaikoura.

USE THE SCENIC INLAND ROAD TO KAIKOURA FOR NOW



SH1 south of Kaikoura – between Peketa and Goose Bay – remains closed so crews can clear the landslide blocking the highway and continue slope stabilisation work. The Waiiau/Mt Lyford inland road to Kaikoura (Route 70) is open; if travelling from Cheviot, the Leader Road connects with Route 70 at Waiiau

Meanwhile, the digger that was last week partially buried during the night on the large landslip near Rosy Morn, south of Kaikoura, has been recovered. Damage to the digger was minimal. The digger had been parked on the face of the slip.

Using diggers to clear landslides is part of the normal recovery process. After engineers have assessed the safety of the landslide, excavators carefully built a path to the top of the slip, zig-zagging across the slip's face. When they reach the top of the landslide, they create a flat bench area and undertake slope stabilisation by removing fallen stone, dirt and vegetation. For some landslides, small excavators are used as they are more agile and lighter for the delicate works.

On the inland road, the scaling of the slip at the Whales Back saddle is now complete and rock bolting is well underway to mitigate rock fall along this route – as of this week about half of the bolts had been installed. This work is expected to finish this month. The temporary road that was built to carry traffic around that slip remains in use.

Travellers can find up-to-date information on weather and road conditions:

- On the NZ Transport agency's website: www.nzta.govt.nz/traffic/regions/11
- 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/

THE 'KIT-SET VILLAGE' IS ON THE MOVE

If you're travelling on the inland road to or from Kaikoura over the next fortnight, please allow for potential delays: the transportation of the prefab village units - which will temporarily house the more than 300 women and men restoring SH1 and the railway – is underway.

The units will travel from Christchurch to Kaikoura via SH1, SH7 and Waiau/Mt Lyford inland road. The aim is to move the units in convoys: two wide-load trucks and two pilot vehicles. These convoys will be staggered over about 12 nights, to cause as little disruption as possible to other road users.



The site of the temporary accommodation facility in Kaikoura has now been confirmed; the village will be assembled over coming weeks on the corner of Ludstone and Mt Fyffe Roads.

Further information about the facility can be found in a 'Q and A' on the NZ Transport Agency's website: www.nzta.govt.nz/assets/projects/kaikoura-earthquake-response/Kaikoura-Earthquake-Response-Accommodation-Village-question-and-answers-20170428.pdf

MOVING 'MONSTER' LANDSLIDES

Efforts to clear the large coastal landslides north of Kaikoura are entering a new phase. After November's 7.8 magnitude earthquake, abseilers used pick-axes to dislodge the largest boulders and helicopters sluiced to wash material down.

The sluicing operation is now winding down, with the monster landslide north of Ohau Point (site 7) being the last to have full-time sluicing. This allows earthworks operations to escalate.

There are 27 excavators, 25 truck and trailer units, 14 dump trucks, 5 bulldozers, 3 loaders, 2 rollers and 1 crane currently working to clear the 10 largest landslides. This army of machinery is working long hours to clear landslide material and rebuild the road and rail corridor. They remove and stockpile the slip material, some of which is being used for repairs within the transport corridor.

At site 7, at Ohau Point, boulders that cannot be sluiced are being blasted this week.

Abseil crews are still working at Ohau Point's site 6, where they continue to dislodge boulders from this large landslide and drill holes in preparation for slope stabilization works.

OHOU'S SEALS ARE ADJUSTING WELL POST-QUAKE

The Department of Conservation (DOC) this week reports that while there is likely to be some impact on the population, the Kaikoura coast's seals are proving to be resourceful and resilient to the resulting effects of November's earthquake.

DOC says the landslide at Ohau Point, brought down by the November's earthquake, buried much of the seal colony's long-standing breeding site, but overall the marine mammals seem to be adapting well to their changed environment. They are already starting to colonise new areas to the north and south of their former breeding site.



DOC provided advice and expertise for a trial led by the transport alliance's environmental team to develop methods to move seals away from landslides and construction zones when required. Electric fences have proven to be effective.

The alliance is working with DOC to minimise impacts on the area's conservation values during the reinstatement of SH1 and the railway. The combination of heavy landslides along a critical part of the transport corridor, which is also home to a dense population of seals, is new territory. DOC will continue to provide advice, monitor impacts on the seal colony and, if needed, support NCTIR to respond to these as work progresses.

Radio New Zealand interviewed DOC seal experts this week, and the audio can be found here: www.radionz.co.nz/national/programmes/morningreport/audio/201842298/kaikoura's-seals-make-new-home-after-quake

WORK TRAINS ARE MOVING TOWARDS KAIKOURA



The rail corridor between Christchurch and Blenheim should now be treated as 'live', with appropriate care taken at level-crossings.

KiwiRail has completed numerous minor track repairs between Spotswood and Kaikoura, while work continues on bridges and tunnels. In North Canterbury, work trains are progressing north out of Spotswood, working their way towards Claverley on the coast. These work trains are laying ballast as they go and are then followed by regulator machines which smooth out the ballast. Tampers then undertake the fine adjustments of the track alignment.

Where the railway crosses the Old Claverley Creek on Bridge 95 – work has been underway to strengthen the bridge, built in 1938, and reinstate its approaches. Piling and abutment concreting is now complete.

In the north between Clarence and Blenheim, numerous minor track repairs are complete, with work crews now focused on damaged land and structures at various sites heading towards Kaikoura. This includes repairs to bridges near Wharanui and Tirohanga. Scaffolding of the rail bridge over the Clarence River has begun so repairs can get underway. Work trains moving south from Blenheim towards Kaikoura have reached Tar Barrel, where a major slip and subsidence are being cleared and stabilised.

SOLID PROGRESS AT THE HARBOUR



Solid progress continues in the harbour with a new Coast Guard ramp completed at the new seabed level, and around half of the inner harbour seabed dredging now done.

November's earthquake raised the seabed under the harbour; these photos show the harbour after the quake and now. In the outer harbour, seabed dredging is also progressing well, with around a month's worth of work left. The next step is to dredge the main channel boat ramp used by commercial operators.

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.

PLAN AHEAD: THERE IS SNOW ON THE MOUNTAINS

The NZ Transport Agency is launching a Winter Journeys campaign to help drivers understand how to stay safe on the roads during the winter months as snow, ice, fog and wet weather can make driving conditions difficult. www.nzta.govt.nz/winterjourneys.

The overall campaign message is 'Be Safe, Plan Ahead'. This encourages drivers to make sure their journey time expectations are accurate, their vehicle is ready for winter driving, and that they have food, water and warm clothing in their vehicle in case of delays.

Travellers can find up-to-date information on weather and road conditions via www.nzta.govt.nz/traffic, 0800 4 HIGHWAYS (0800 44 44 49) and through the Transport Agency's social media channels - these are listed here: www.nzta.govt.nz/contact-us/connect-with-us/

Road crews will be on stand-by on the state highways between Picton and Christchurch over winter. New weather stations are being installed at St Arnaud and on the Lewis Pass to improve monitoring; this will help crews to act quickly as weather develops and intensifies.

KEEP UP-TO-DATE

How to contact us and keep up to date with our road and rail projects:

- 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 meetings - 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



TO BLENHEIM ↗



Waipapa Bay



SITE 9: 3,000m³ of slip material

Okiwi Bay



SITE 8: 41,000m³ of slip material

Ohau Point



SITE 7: 20,000m³ of slip material



SITE 6: 110,000m³ of slip material



SITE 5: 6,000m³ of slip material



SITE 3: 5,000m³ of slip material

Half Moon Bay



SITE 4: 44,000m³ of slip material



SITE 2: 10,000m³ of slip material



SITE 1B: 112,000m³ of slip material



SITE 1A: 23,000m³ of slip material

↙ **TO KAIKOURA**

Please note: Map is indicative only