Rail Tunnel Rehabilitation
Following the Kaikoura Earthquake
New Zealand
Location of landslides generated by the Kaikoura 2016 earthquake

Source area (m$^2$):
- < 10,000
- 10,000 to 50,000
- 50,000 to 100,000
- 100,000 to 250,000
- > 250,000

Main area affected
Total area affected
Kaikoura earthquake surface ruptures
Active faults

Acknowledgements:
Preliminary Landslide Inventory for the 2016 Kaikoura earthquake, New Zealand by Raffye et al. (2017) DOI: 10.18118/G6NK67

The landslides shown on this map were generated by the Kaikoura 2016 earthquake.

References:
- Litchfield et al. (2018) DOI:10.21420/G2.01F
- Langridge et al. (2018) DOI:10.1080/00283306.2015.1112818

Map showing landslides along a road network with tunnels and sections labeled T1 to T24.
Our Vision

Moving mountains to reconnect communities
Main North Line Earth Quake Recovery

CRITICAL RISKS
Stay Clear of Slips (No Stopping or Standing nearby)
Do Not Go Under Bridges or inside Tunnels, Unless! There is a
Specific Safety Plan in Place
Do Not Access Orange or Red Zones Alone
No Rail Vehicles to Cross Bridges or Enter Tunnels Until
Cleared By Engineering Inspection

TRAFFIC MANAGEMENT
Do Not Use ‘Closed Roads’ Without NZTA Approval

COMMUNICATIONS
Green Zone – Radio or Cell Phone Coverage
Orange & Red Zones – No Radio or Cell Phone
Coverage: Satellite Phone & EPERB Orange & Red Zones
Conference Calls Daily at 0730 & 1600 Hrs
(Number TBC)
Call Manager to Report Any Significant After Shocks
Mandatory Call 03 3393807 When Moves Sites

PERSONAL PROTECTIVE EQUIPMENT
Mandatory PPE: Hard Hats & Safety Glasses

HOUSE KEEPING
Ensure Vehicles are Fuelled at the Beginning of Each Day
Emergency Kit (Back Pack) to be carried when working in Orange or
Red Zones.
Charge Cell Phones and iPads overnight

Safety Zones
Green – Orange – Red Zone boundaries will be updated daily
‘The health and safety record during the rebuild is a tribute to everyone involved’ Worksafe New Zealand
Tunnel Team

North Tunnel Team

- Tunnel Driver
- Mine Engineer
- Mine Driver
- Mine Engineer

Tunnel 16 Crew

- Andrew John
- Mark Smith
- Neil Paul
- Mark Smith

Tunnel 18 Crew

- Gary Fox
- Jerome Pl"o
- Dave Waddington
- Tim Fowkes
- Jack Jackson

Super Crew

- Thomas
- Troy
- Scott
- Matt
- Tom
- Dave

About Health and Safety

There is one piece of health and safety we can all use to help prevent health and safety issues from happening – it's your mouth.

Davertake care of your mouth, your boss or your workers are the first actions to take to help make sure everyone goes home healthy and safe.

Knowing who's doing what, learning from past mistakes and coming up with ways to do things better and do things safer are conversations we should be having all the time.

Your mouth is a great bit of help – use it and start talking.

Find out how to use your mouth.