

# Working together on health and safety

Event: AusIMM  
Presentation  
Date: 31 August –  
03 September  
2015

Name: Tony  
Forster  
Title: Chief  
Inspector -  
Extractives



**WORKSAFE**  
NEW ZEALAND | MOHIO KAWARAU

**EVERYONE  
WHO GOES  
TO WORK  
COMES  
HOME  
HEALTHY  
AND SAFE**





# Not the first mining disaster!

Kiwi “No. 8 wire” and “She’ll be right” attitude effects on health and safety in the workplace???





# Mining Tragedies in new Zealand

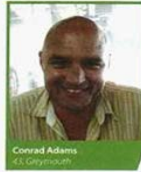
New Zealand history of underground coal mine tragedies including:

Mine	Fatalities
1879 Kaitangata mine	34 deaths
1896 Brunner mine	65 deaths
1914 Huntly, Ralph's colliery	43 deaths
1939 Huntly, Glen Afton No. 1 mine	11 deaths
1967 Strongman mine	19 deaths



# Pike River Mine

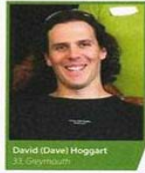
Atarau, Greymouth, New Zealand



Conrad Adams  
43, Greymouth



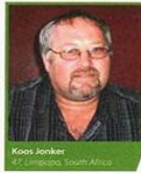
Daniel (Dan) Herk  
36, Rangiora



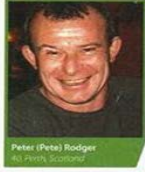
David (Dave) Hoggart  
33, Greymouth



Richard (Rolls) Holling  
41, Rockwood



Koos Jonker  
42, Lombard, South Africa



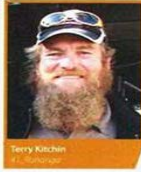
Peter (Pete) Rodger  
46, Papanui, Dunedin



Blair Sims  
36, Greymouth



Keith Vail  
62, Palmerston



Terry Kitchen  
41, Rangiora



Joshua (Josh) Ufer  
28, Christchurch, Christchurch, Auckland



Zeh Driess (Verhoeven)  
31, Greymouth



Kane Nispey  
31, Greymouth

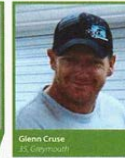


Riki (Rik) Kaane  
26, Greymouth

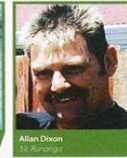
Pike River Coal      Subtech Services



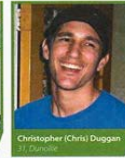
Malcolm Campbell  
34, St Andrews, Scotland



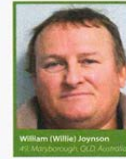
Glenn Cruse  
40, Greymouth



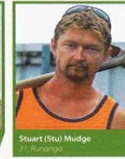
Allan Dixon  
50, Rangiora



Christopher (Chris) Duggan  
31, Dunedin



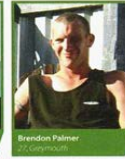
William (Willie) Jynson  
48, Marlborough, QLD, Australia



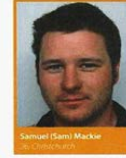
Stuart (Stu) Mudge  
31, Rangiora



Peter O'Neill  
53, Rangiora



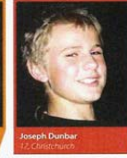
Brendon Palmer  
37, Greymouth



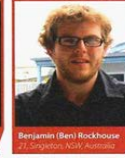
Simon (Sami) Mackie  
38, Christchurch



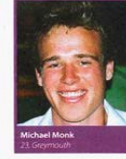
Milton (Mitt) Osborne  
56, Rangiora



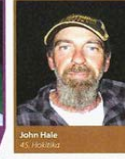
Joseph Dunbar  
32, Christchurch



Benjamin (Ben) Rockhouse  
41, Christchurch, NZ, Australia



Michael Monk  
31, Auckland



John Hale  
41, Auckland



Andrew (Huck) Hurren  
42, Hokitika



Francis Marden  
41, Greymouth

VJ Drilling      Boyd Kibbey Builder      Greeme Pizzini Contracting      CVB Construction

# Royal Commission Finding

- Royal Commission - savage lessons from the past, learnt at the cost of lives, had not been retained.
- On average these mining tragedies could be plotted in sequences repeated at approximately 20 year intervals
- Each generation experienced its own 'disaster', but innate human capacity to forget, move on and erase unpleasant memories, creates the foundation for the next inevitable chapter in a repeating cycle.

# Chronology

- Explosion at Pike River mine on 19th November 2010
- MBIE High Hazards Unit formed (November 2011)
- Royal Commission report on the Pike River published (October 2012)
- Appointment of Chief Mines Inspector (January 2013)
  - Establish HHU Mines Inspectorate 'Intervention Strategy' (re-named in 2015 'Targeted Assessment' inspection process)
  - Develop a strategic and targeted safety critical topic inspection programme (later aligned to PHMP /PCP)
- Independent Task Force on Workplace Health and Safety report (April 2013)
- Crown Minerals Amendment Act 2013 (May 2013)



- Engage with 'Well Connected Alliance' on Auckland Waterview TBM Project (May 2013)
- Extractives sector formed (mines, tunnels, quarries, alluvial mines (September 2013)
- First multi-agency CIMS emergency exercise at Huntly East (September 2013)
- HSE (Mining Operations and Quarrying Operations) Regulations 2013 (December 2013)
- Mines Rescue Act 2013 established (December 2013)
- Underground Mines Emergency Protocol established (December 2013)
- Codes on 'Fire or Explosion' and 'Ventilation' released (February 2014)
- WorkSafe New Zealand established (December 2013)

- Extractives Industry Advisory Group established (July 2014)
- UMEP multi agency emergency exercise at Waterview TBM Tunnel (July 2014)
- First leg of Waterview TBM tunnel completed (September 2014)
- Board of Examiners established (October 2014)
- UMEP multi agency emergency exercise at Oceana Gold (October 2014)
- National Mines Rescue contest - Waihi gold mine (November 2014)
- Gazette new Unit Standards – Certificates of Competence (December 2014)

- Develop National Multi Agency Emergency Response model (rail / road tunnels)
- Develop professional working relationship with Trade Unions - Industry Health and Safety Representative appointed (Stephen Woods)
- Develop professional working relationship with Stratterra / MinEx / AQA / IOQ / West Coast Minerals / Gold Miners Association / Drillers Association
- Develop Targeted Assessment – Legislative Compliance tools
- Work with MBIE on review of 'Mining Regulations (Phase 1 / Phase 2)
- Work with NZP&M on National Mine Plan Repository
- Work with NZP&M and Local / Regional Authorities on joint initiatives (e.g. West Coast inspections)

## Extractives Industry Forums

- Greymouth (June)
- Tauranga (July)
- Alexandra (August)
- Whangarei (September)
- Ashburton & Hawkes Bay (October)
- Invercargill (November)



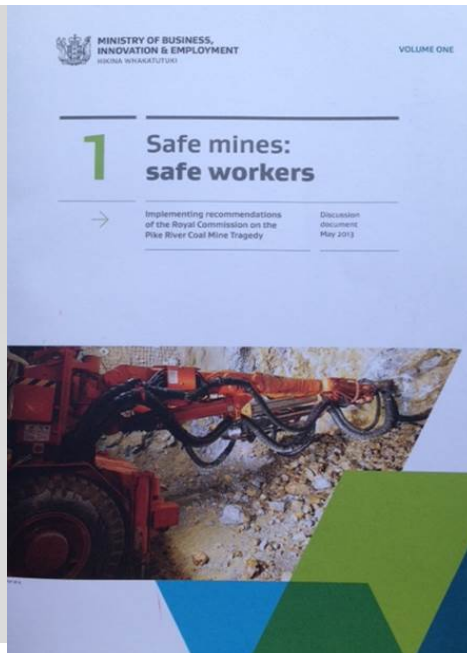
- Guidance on 'Health and Safety at Opencast Mines, Alluvial Mines and Quarries' (July)
- 'Google Map' created – location of quarries in New Zealand (July)
- PHMP 'ground control' interpretive guidance issued (August)
- Panels of Examiners (to be) established (November)
- Pike River Mine drift (to be) sealed (November)
- **5<sup>th</sup> Anniversary Pike River**

# WHAT CHANGES HAVE TAKEN PLACE?

- A new regulator – WorkSafe New Zealand
- The High Hazards and Specialist Services Unit
- New mining regulations, codes and guidance
- Wider legislative changes
- New Zealand mining board of examiners
- Underground mines emergency protocol

# Mining regulations

- Safety by design
- Systems based approach
- Principal hazards
- Principal control plans
- Industry health and safety representatives





## Health and Safety in Employment (Mining Operations and Quarrying Operations) Regulations 2013

Jerry Mateparae, Governor-General

### Order in Council

At Wellington this 9th day of December 2013

Present:

The Right Hon John Key presiding in Council

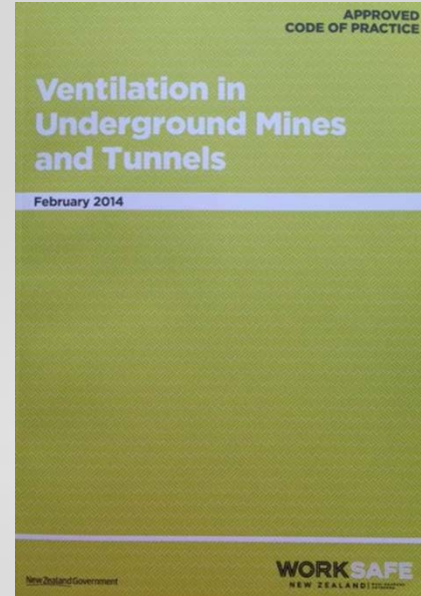
Pursuant to section 21 of the Health and Safety in Employment Act 1992, His Excellency the Governor-General, acting on the advice and with the consent of the Executive Council and in accordance with a recommendation of the Minister of Labour, makes the following regulations.

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# Codes and guidance

- Development project running through to 2017
- Two codes, one guidance published, four codes under construction (2015)
- Fully consultative process



# Crown Minerals Amendment Act 2013

- Direct link between mining permits and health and safety
- Mining must not be carried out before WorkSafe has given approval
- WorkSafe and New Zealand Petroleum and Minerals must share relevant information

# The Health and Safety at Work Act

- Bill is currently before parliament
- Expected to come into force in 2016
- Positive duty of due diligence on company directors
- “PCBU” clarifies laws around who is a duty holder

# Mines Rescue Act 2013



- Enables a fairer levy system
- Enshrines emergency management protocol in law
- Gives legal recognition to incident controllers



# Underground mines emergency protocol

- Based on coordinated incident management system (CIMS)
- Places an industry representative in charge of rescue/recovery operation
- Provides strategic support from government agencies
- Tested in 2013 and two further live exercises



# Inaugural new Zealand Mines Rescue Competition

- The key objective was to understand New Zealand's collective strengths and weaknesses in mines rescue capability was
- Assisted by Australian personnel from three states, and a UK consultant
- Four teams competed
- Four events – fitness, underground search and rescue, unexpected underground event, theory/benchmark



# New Zealand mining board of examiners

- Put into place to oversee the competency framework
- Certificates of competence were gazetted in December 2014 to reflect the provisions in the new mining regulations
- CPD requirements to be put into place to ensure professional practice is maintained and up to date



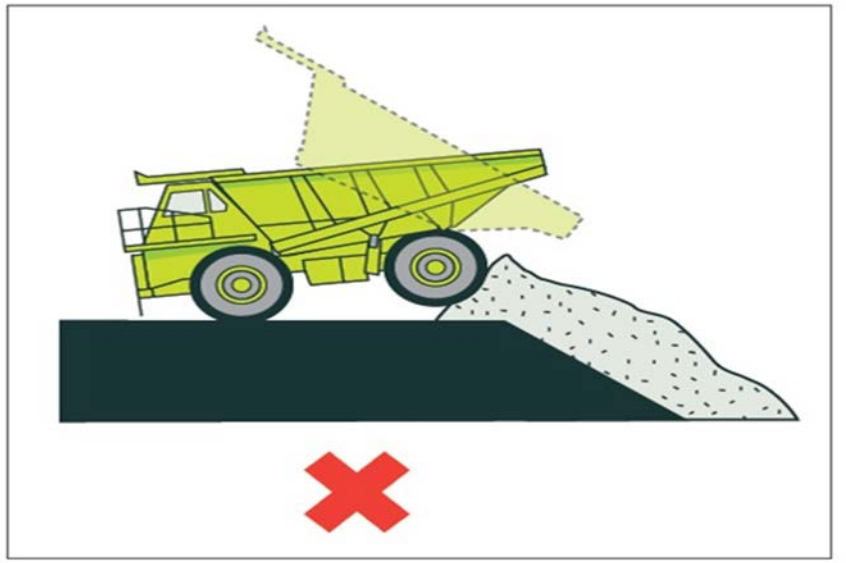
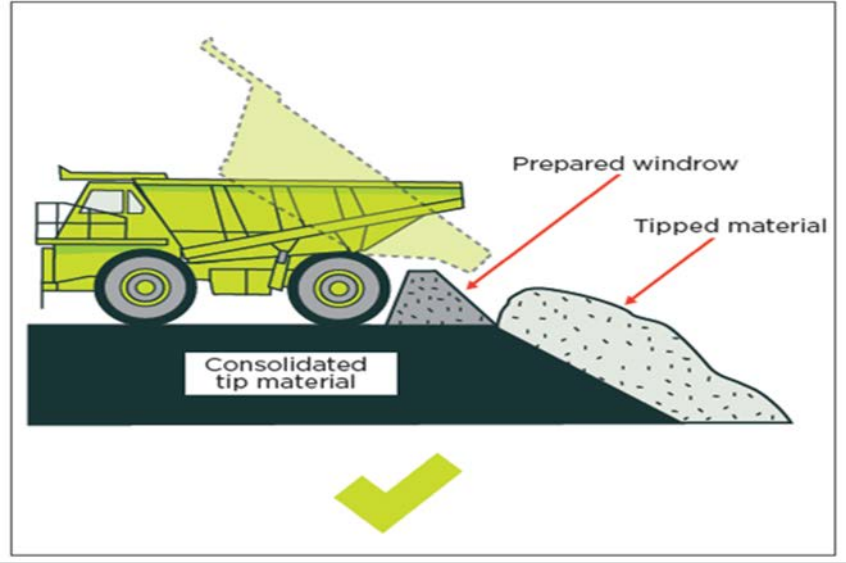
# Health and Safety at Opencast Mines, Alluvial Mines and Quarries

JULY 2015





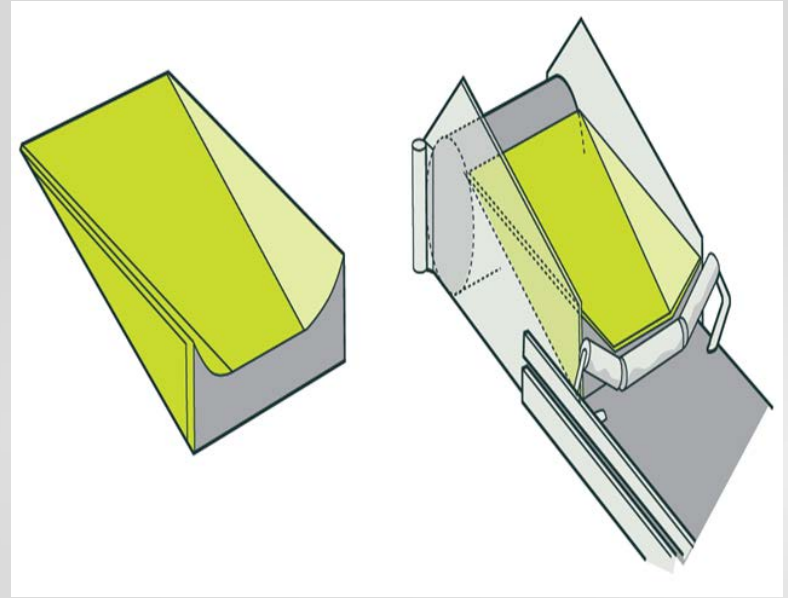
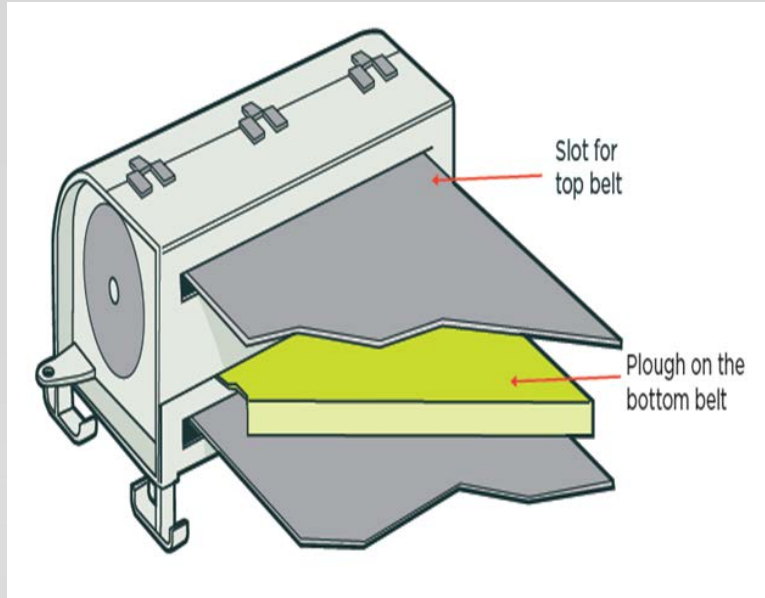
# End tipping



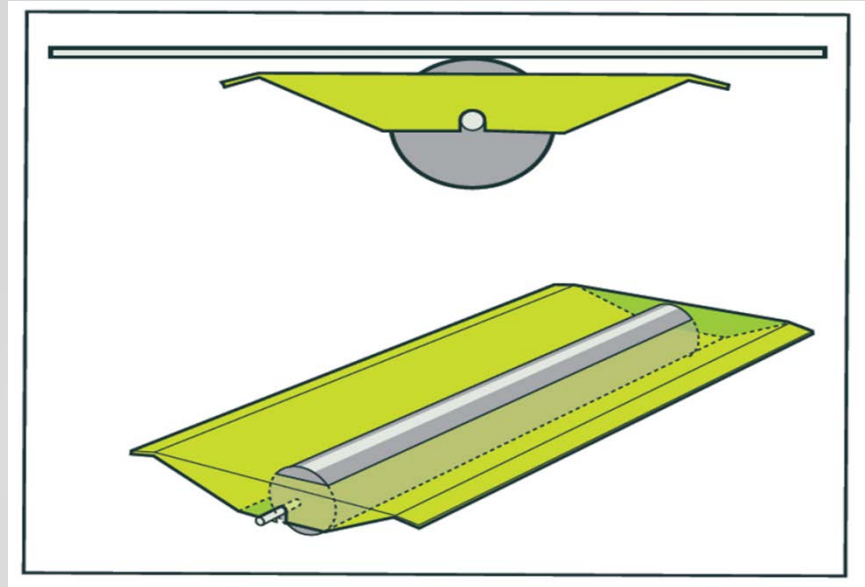
# End Tipping Hazards



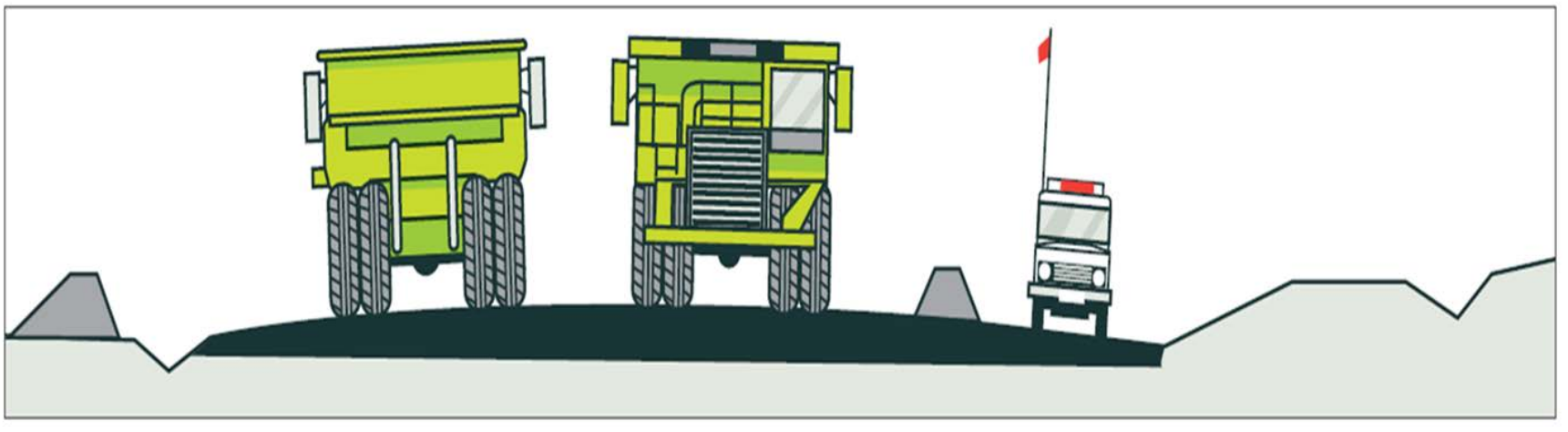
# Nip Guarding



# Flat plate conveyor guards



# Vehicle interaction

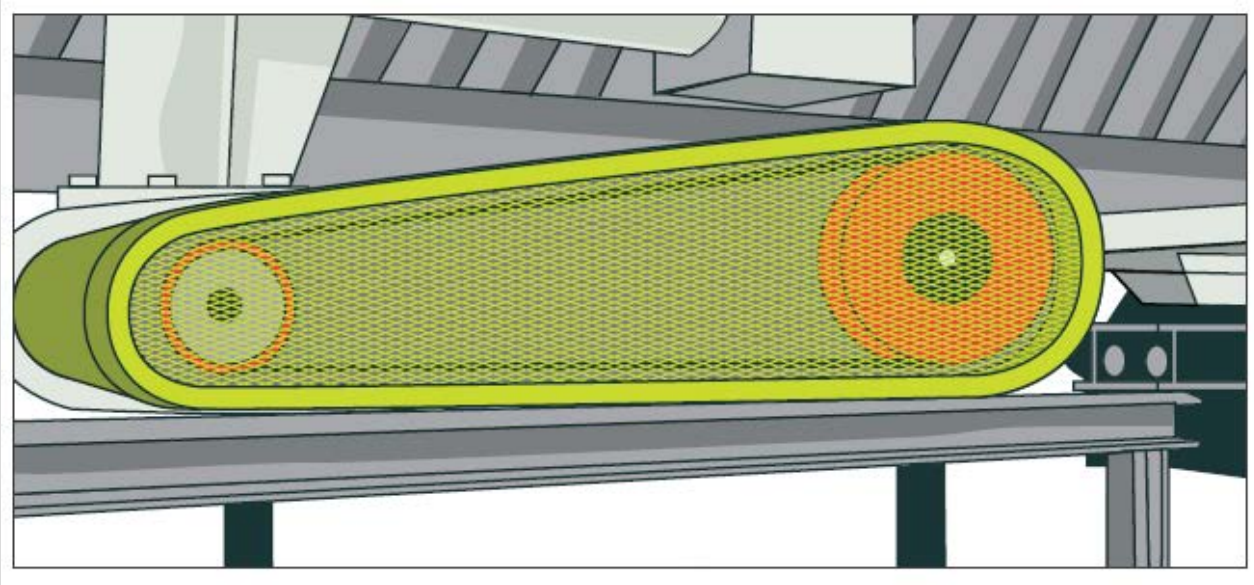


# Interaction hazards

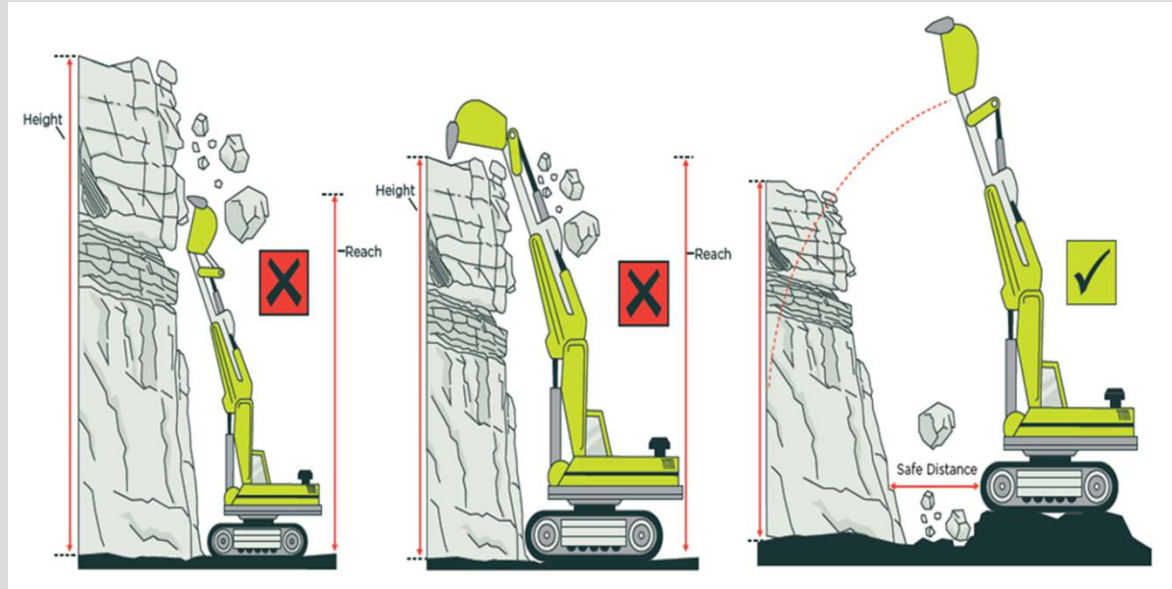




# guarding



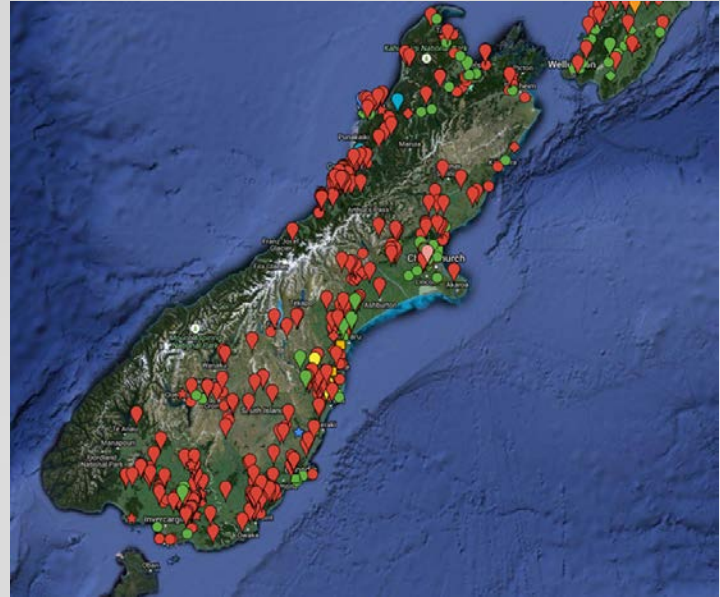
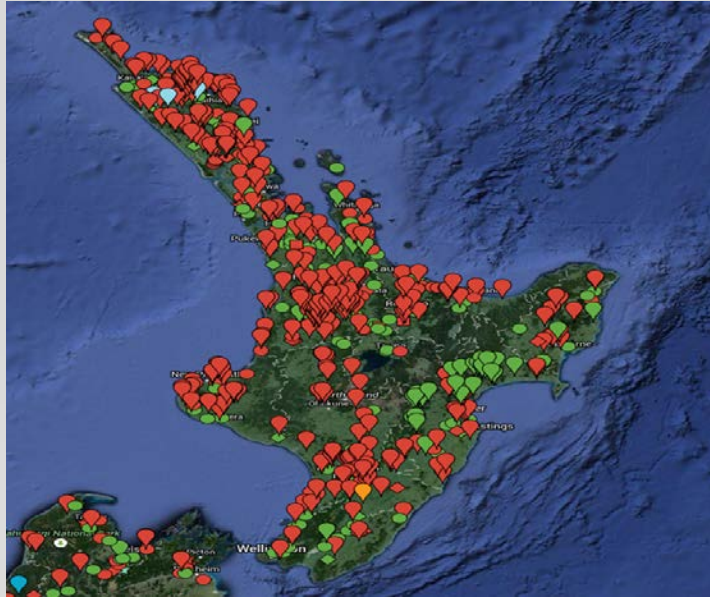
# Quarry guidance



# Safer working faces



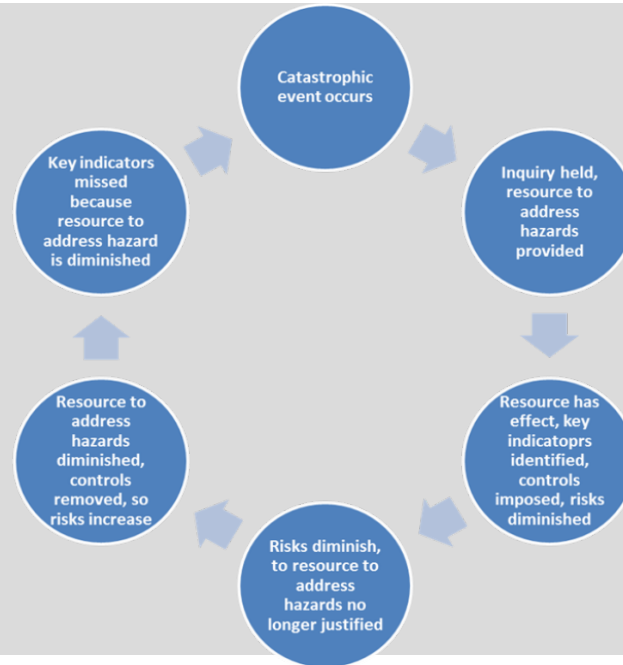
# The quarries 'map'



# CONTINUING PROFESSIONAL DEVELOPMENT

- Regulations require all CoC holders to renew CoCs every five years
- Board of Examiners will renew CoCs if CPD requirements met
- WorkSafe sets requirements in a New Zealand Gazette notice
- 1 January 2016 start

# Cycle of disaster





# 19 NOVEMBER 2010

- *"The further away we move from the last disaster, the closer we move to the next one"*



# EVERYONE WHO GOES TO WORK COMES HOME HEALTHY AND SAFE

