The Alternative Route

Keeping the South Island Connected
14th November 2016

[Map of geological fault lines and seismic activities]
Consequence

- Significant damage to the transport corridor
- Kaikoura, Waiau and Hamner townships isolated
- SH1 traffic diverted through the Lewis Pass
- Rail inoperable
Slips >1 Million Tonnes
Slips
Slips

NCTIR
RECONNECTING COMMUNITIES
5m Vertical Displacement
69 Damaged Bridges
Retaining Walls
150km Damaged Track
Tunnels
SH1 Programme

- $1bn to restore the road & rail Corridor
- $240M of Improvements
- Rail reopening in August 2017
- Road reopening in December 2017
- Programme completion December 2018
Alternative Routes

• Christchurch to Blenheim:
  – SH1 – 4hrs 15
  – Alternate Route – 6hrs 15
  – Up to 7hrs peak programme
  – Time increase is significant for freight as they can’t do a turnaround trip within legal hours

• Christchurch to Kaikoura:
  – SH1 – 2hrs 30
  – Inland Road – 3hrs 15
  – 3hrs 45 with programme
Road Maintenance

- North Canterbury NOC – Downers
- West Coast NOC – Fulton Hogan
- Tasman NOC – Fulton Hogan
- Marlborough NOC - HEBS

- Maintenance Contract - Sicon
- Maintenance Contract - HEBS

Programme funded by New Zealand Government
Environment
Environment
Communication Black spots
Traffic Volume Changes – SH63

06300096 - St Arnaud - Telemetry Site 93

Kaikoura Earthquake
Traffic Issues
Crash History

Crash Rate Comparison between SH1 Coastal Route and Alternate Route

- Trucks:
  - SH1 [Pre]: 50
  - Alt Route [Pre]: 60
  - Alt Route [Post]: 90
  - 74% Increase

- Car:
  - SH1 [Pre]: 40
  - Alt Route [Pre]: 50
  - Alt Route [Post]: 80
  - 36% Increase

Programme funded by

NZ Transport Agency
KiwiRail
New Zealand Government
Truck Crashes
Truck Crashes

TREIS: Recorded Truck Incidents on Alternate Route

<table>
<thead>
<tr>
<th>Month</th>
<th>Nov-16</th>
<th>Dec-16</th>
<th>Jan-17</th>
<th>Feb-17</th>
<th>Mar-17</th>
<th>Apr-17</th>
<th>May-17</th>
<th>Jun-17</th>
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<tbody>
<tr>
<td>Incidents</td>
<td>0</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>12</td>
<td>7</td>
<td>4</td>
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Programme funded by

New Zealand Government

KiwiRail
## Programme Of Work

<table>
<thead>
<tr>
<th>Improvement</th>
<th>Quantity</th>
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</thead>
<tbody>
<tr>
<td>Rehabs</td>
<td>38km</td>
</tr>
<tr>
<td>Sealing</td>
<td>127km</td>
</tr>
<tr>
<td>New Guardrail</td>
<td>12.2km</td>
</tr>
<tr>
<td>Passing Opportunities</td>
<td>25 No</td>
</tr>
<tr>
<td>Resilience</td>
<td>7 Sites</td>
</tr>
<tr>
<td>Pavement Widening</td>
<td>80km</td>
</tr>
<tr>
<td>Township Safety</td>
<td>5 No</td>
</tr>
<tr>
<td>Single Lane Bridges</td>
<td>15 No</td>
</tr>
<tr>
<td><strong>Improvement Total</strong></td>
<td><strong>$60M</strong></td>
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</table>

### Other Improvements
- Delineation
- Signage
- Speed Reductions
- Bailey Bridges
- Traffic Lights
- Short Range Comms
Road Widening
Guardrail & Passing Opportunities
Resilience
Route Maintenance

- Forecasted Cost $64M
- 5 times the cost of pre-earthquake levels
- National Strategic SH LOS standards
- Significant winter maintenance & incident response management

Maintenance Contract changes:
- Risk transfer back to the Agency
- Cost Reimbursable
- High levels of Auditing
- Value for Money Reporting
- KPI’s set around safety & customer
Our Customers

THE ALTERNATE ROUTE

P2C CAMERAS
WEST COAST CAMERAS
MARLBOROUGH CAMERAS
SEE TRAFFIC INFO
ACTIVE WORKSITES

SH 6 Washington Valley To Moana (Rocks Road): Road Works
Due To Works On Rocks Road From Thursday 20th April To Thursday 31st August.
Journey Management

- Alternate Route Journey Manager
- Customer Information
- Incident Management
- Working closely with:
  - Freight Industry
  - Civil Defence
  - Police
  - Local Authorities
  - Local Communities
Delay Time Management

Project Sites (as of 26/07/2017)
26

Delay Time
36 (min)

2016/17 Rehab | Resurfacing
58,641 (m)

2016/17 Rehab | Resurfacing
ALL SELECTED
COMPLETED

Pavement Widening
95,374 (m)
Programme Optimisation

NCTIR DASHBOARD

- North Canterbury
- Marlborough
- Tasman
- West Coast
- NDC - Marlborough

Programme Month Delay
- NULL
- OCTOBER 2017: 36 minutes
- JANUARY 2018: 33 minutes
- FEBRUARY 2017: 3 minutes
- MAY 2017: 3 minutes
- OTHER: 2 minutes

% SEARCH IN BAR CATEGORIZATION

Project Count
- 89 projects

Delay Time
- 43 min.

NDC & NCTIR Delay Summary

NOC-North Canterbury

Programme funded by

New Zealand Government
Educational Campaigns

Winter Road Closure - What Should I Do?
What you need to know if travelling between Picton and Christchurch

Winter Journeys
Be safe, plan ahead.

Winter 2017

Plan Your Journey
Upper South Island Travel Guide

Nelson
Picton
Blenheim

Westport
Kaikoura
Greymouth
Christchurch

Autumn/Winter 2017

North Canterbury Transport Infrastructure Recovery
Industry Support
Customer Information

Upper South Island travel guide – plan a safe and enjoyable journey

State Highway 1 (SH1) is currently closed to all traffic travelling from Blenheim to Christchurch following the damage caused by a 7.8 magnitude earthquake near Kaikoura in November 2016.

A 2 year GP time can travel from Blenheim to Kaikoura by SH52, ignore SH50. The road is currently closed. There are no public transport services between Picton and Christchurch in the More Bach Line to allow emergency response. Please follow the alternative travel routes on the map below for a safe and enjoyable trip. Thank you.

HOW TO GET FROM PICTON/BLENHEIM TO KAIKOURA AND CHRISTCHURCH

- Take the new Matanaka Bridge which was completed in January 2017 near Picton.
- Take the new Hanmer Bridge which was completed in June 2017 near Hanmer Springs.
- Take the new Hanmer Bridge which was completed in September 2017 near Hanmer Springs.
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Ongoing Risks

• **Accident trend** – needs constant focus and reactive programme changes. High levels of input needed from the Police

• **Truck rollovers** – width, speed, fatigue, stress

• **Winter months** – Volume of traffic, driver inexperience

• **Route resilience** – Monitoring of Site specific Issues

• **Journey time v volume of work** – Programme Optimisation

• **Maintenance Standards** – Adequate / responsive Resource levels

• **Pavement condition** – Deterioration through Winter
Lesson learned

• Resilience is not just about our assets affected. We had to consider:
  – A Resilient and safe alternative
  – Community impacts & needs
  – Economic impact through network reliability, industry confidence
  – Appropriate levels of Investment
  – Responsive contracts/contractors
  – Industry, Customer & Stakeholder engagement
  – Policing, Enforcement & Education
Thank you & Questions?