

Operating a network; enhancing incident response

We help New Zealand grow by keeping Auckland moving.



The Auckland Motorway Alliance:



Network extent

From Puhoi to Pokeno



tvnz

ONDEMAND

LIVE TV

1 NEWS NOW



1 news now

NEWS

SPORT

WEATHER



15° / 10° Auckland

LATEST

NEW ZEALAND

WORLD

ENTERTAINMENT

Traffic chaos after Auckland Harbour Bridge crash



Three of the bridge's four northbound lanes were closed for more than three hours. Source: 1 NEWS

DEC 6, 2014

1 NEWS

SHARE

Which
the right
to read

- ☐ Aus
- ☐ New
- ☐ Am

Your Op
Vote now
\$2,000

MOST
POP



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ban at C
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ARMITAGE

Typical minor

Minor crash



Minor asset damage



Road users / broken-down vehicles





Typical Serious Incidents

Asset damage



Truck Rollovers



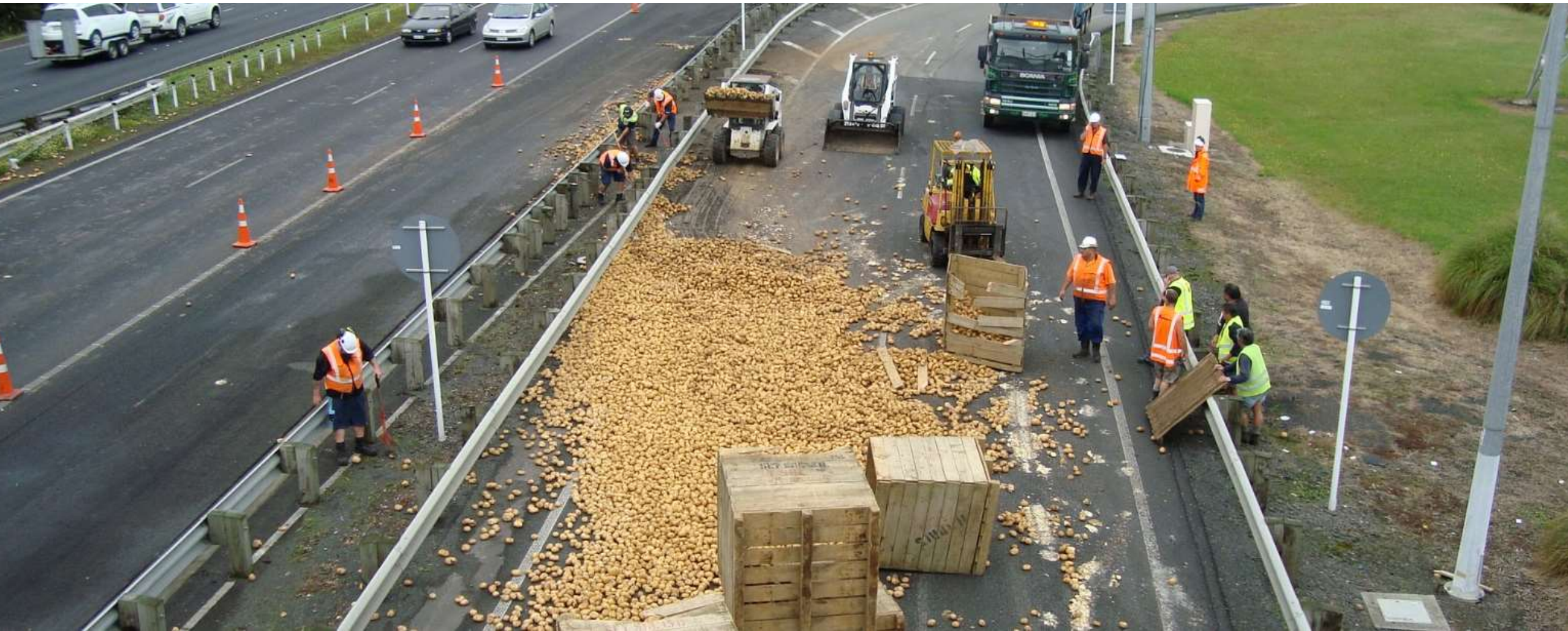
Spills



Spills



Spills



Spills



Spills



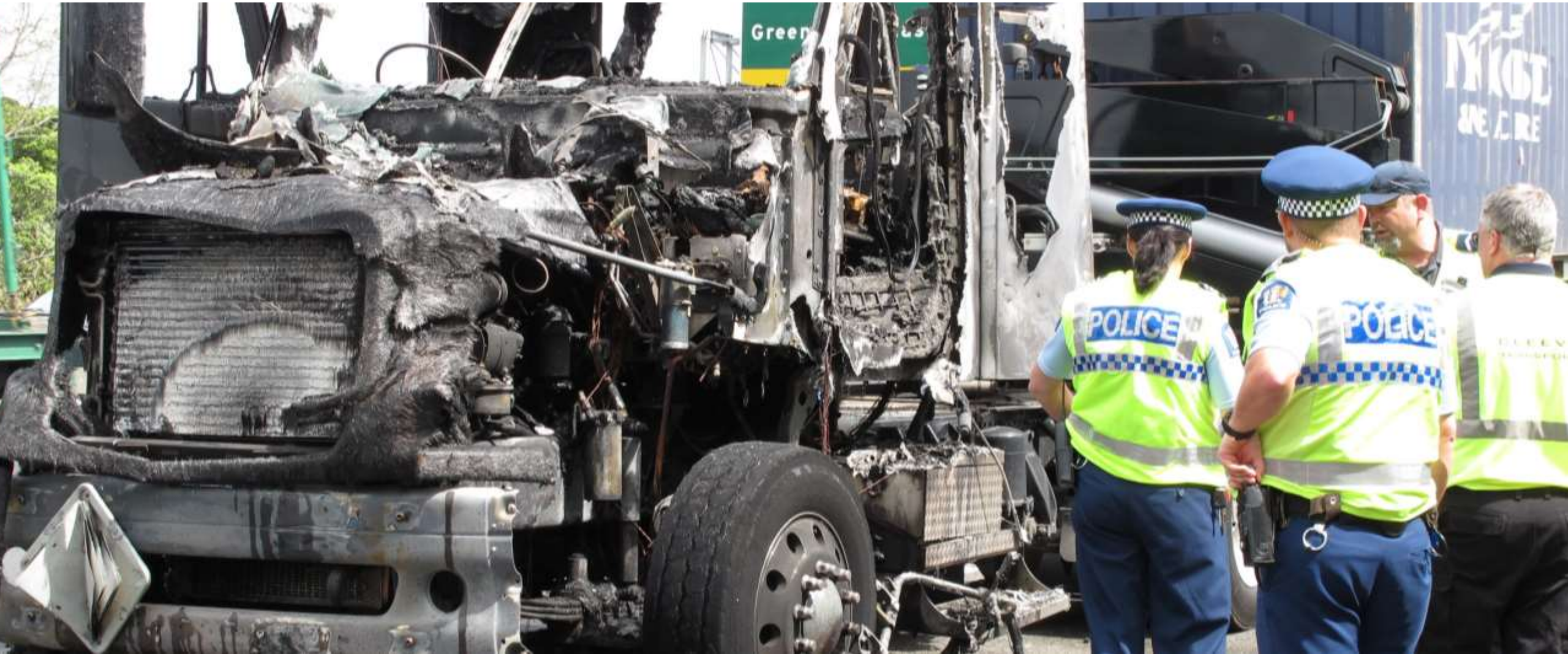
Serious crash



Multi Car Pile-up



Vehicle fire



Protest



Tidal inundation



Bridge Strikes



SH1 Penrose Bridge Strike



Congestion Effects

Bridge Strike



Congestion Effects

Conditions at time of incident; time = 0 seconds



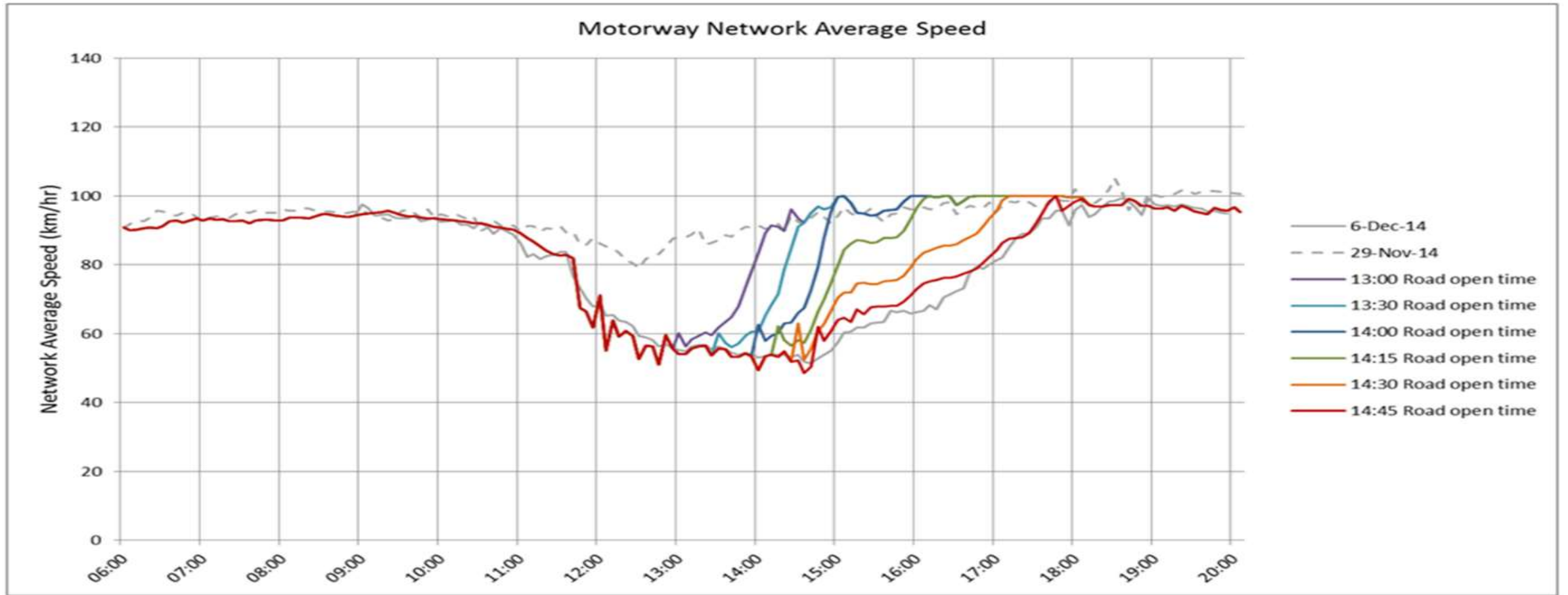
Congestion Effects

Post incident; time = +120 seconds



“Every minute counts”

For unplanned events, congestion recovery time is not linear.



Where have we come from?



Current Level of Service

Responding resource to be on the AMA network within 30 minutes 24/7:

OUR VISION: GREAT JOURNEYS TO KEEP AUCKLAND MOVING			
	OUR PRIORITIES:	SUCCESS IS:	OUR 2018-2019 FOCUS:
Direct role, key focus ↓	KEEP PEOPLE SAFE	A land transport system that is free from harm.	<ol style="list-style-type: none"> 1. Our culture is driven by Zero Harm, Safe System and Sustainability principles. 2. Collaborate with partners on initiatives that enhance the well-being of people and the wider environment.
	IMPROVE CUSTOMER EXPERIENCES	Customers trust us to deliver intuitive experiences that meet their needs and preferences.	<ol style="list-style-type: none"> 1. Develop with the Transport Agency & Auckland Transport a shared understanding of customer needs and customer levels of service. 2. Actively work with the Transport Agency & Auckland Transport, applying this shared customer understanding to utilise better Auckland's existing transport infrastructure to improve liveability. 3. Minimise the impact of works and incidents on the transport system.
	DELIVER CONNECTED JOURNEYS	Digital solutions that enable easier journeys for customers.	<ol style="list-style-type: none"> 1. Align with Transport Agency & Auckland Transport expectations on ownership and delivery of digital solutions. 2. Share our data and insights, and actively work together on transport technology initiatives using our operational and analytical knowledge.
	ACHIEVE ORGANISATIONAL EXCELLENCE	A people-centred and strategy-led organisation that delivers more innovative, responsive and cost effective services.	<ol style="list-style-type: none"> 1. Our people are clear on our Strategy, and we hold ourselves to account for its delivery. 2. Maintain our alignment with the Transport Agency through transparency and collaboration. 3. Understand the value we create for the Transport Agency, and focus most on those activities. 4. Deliver TOC3 with 7% savings and KRAs well above "average". 5. Promote innovation within our organization and with our partners.
Indirect role, secondary focus	CONNECT AND DEVELOP REGIONS	Improved regional and interregional transport system service quality for people, freight and business.	<ol style="list-style-type: none"> 1. Work with partners to strengthen the resilience, safety and efficiency of the transport system through and adjacent to Auckland. 2. Share our ideas and practice to support development in other regions.
	SHAPE THE LAND TRANSPORT SYSTEM	Transport sector decision-making, investment and regulatory and policy interventions are based on a shared long-term view of the land transport system.	<ol style="list-style-type: none"> 1. Provide our partners with operational and system insights into the Auckland motorways and highways. 2. Collaboratively develop a shared understanding of the state of the motorway system and the pressures that cause changes in it.
	TARGET RAPID GROWTH	Improved customer experience of urban travel in Auckland and transfer of initiatives for the benefit of other high-growth urban areas.	<ol style="list-style-type: none"> 1. Provide our partners with insights into current Auckland system performance. 2. Actively engage with the Transport Agency and Auckland Transport on connected journeys solutions for people, freight and business in high-growth urban areas.
OUR VALUES: SPEAK UP AND SHARE, STRETCH THE BOUNDARIES AND MAKE IT HAPPEN			

Observed incident cycle

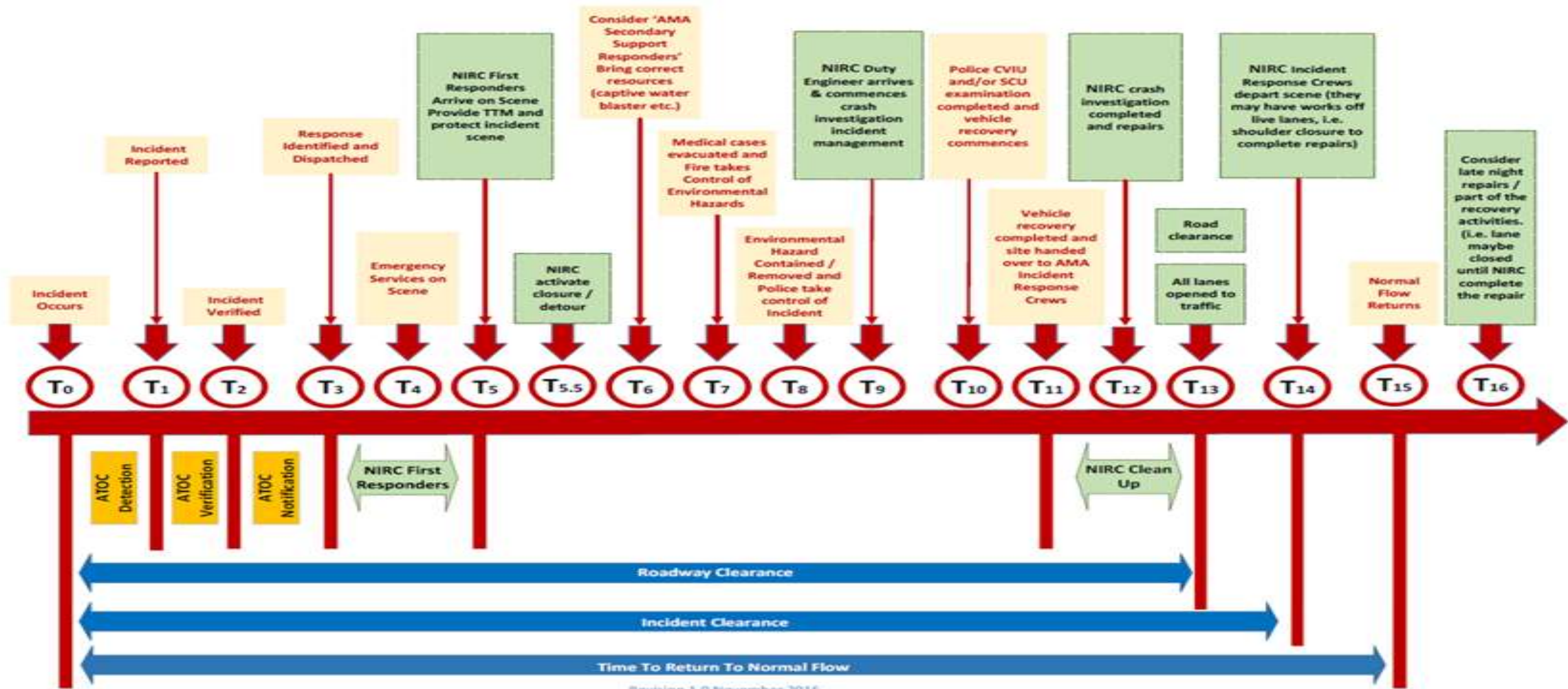


Figure 1. Anatomy of an incident

How did we see improvement?

Key areas:

#1

Relationships

Key stakeholders

Unified command

Assisting our
neighbouring network

#2

Preparedness

Training

Overlapping areas of
response

Agreement in service
delivery

#3

*'Getting
there
quicker';*

#4

*'Do
more'*

Nimble response

Strategic
deployment

Working towards
road restoration

Relationships:

Where can we make real change onsite?

- PEOPLE: Familiar faces, share understanding.
- SAFETY: Working together amongst traffic



Relationships: Integration and support to ATOC-Smales



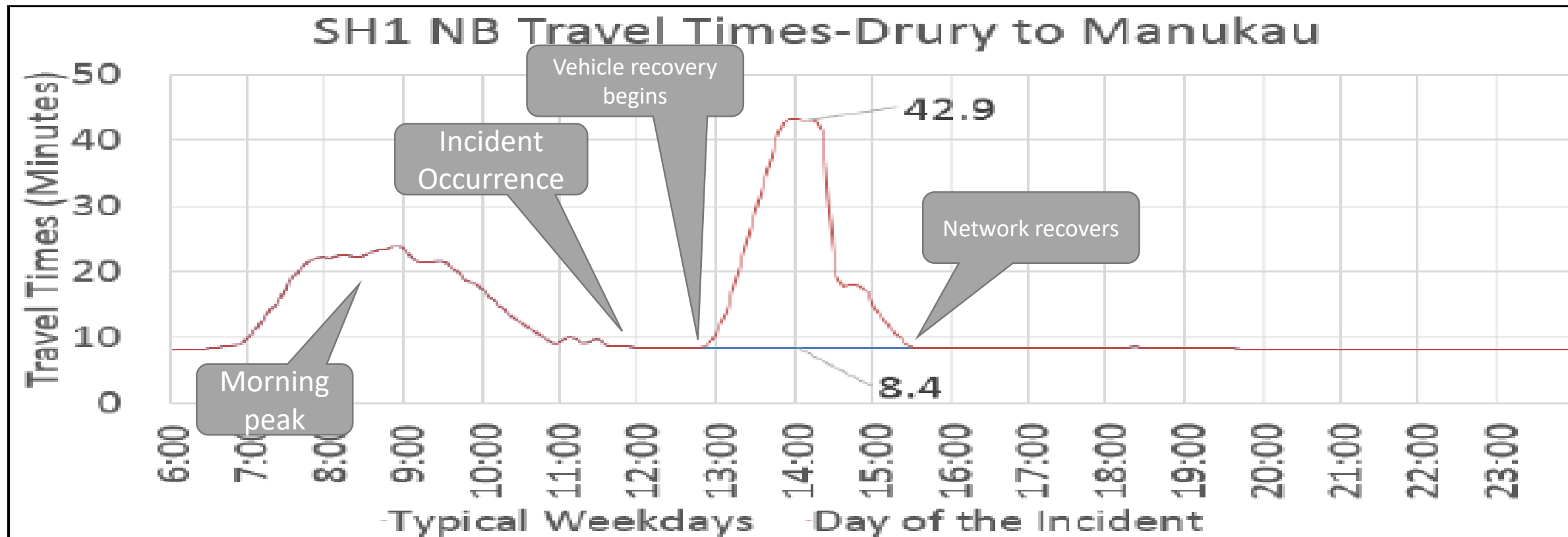
Case Study – Vehicle resting in berm (Trees) SH1 NB between Papakura to Takanini



Case study; errant truck 04 July 2016

Vehicle resting in berm (Trees) SH1 NB between Papakura - Takanini

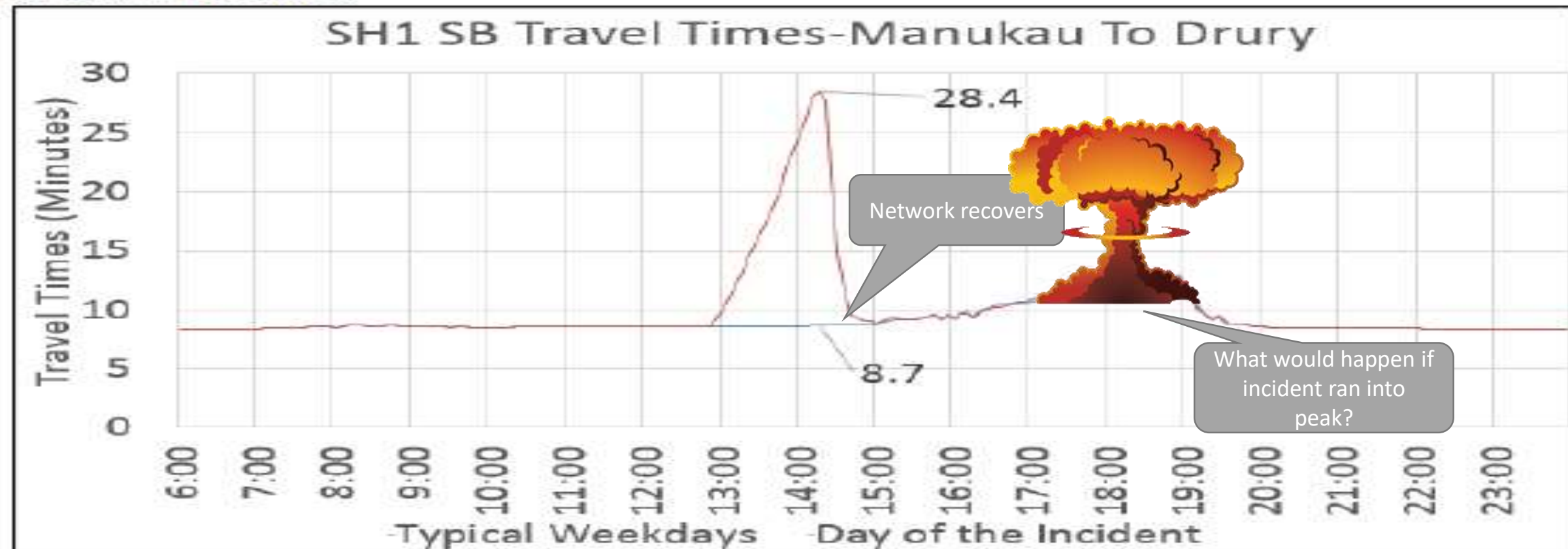
Northbound Travel Times



Case study; errant truck 04 July 2016

Vehicle resting in berm (Trees) SH1 NB between Papakura - Takanini

Southbound Travel Times



Preparedness: Training

Drive the correct decisions and appropriate treatments;

- Identify the opportunities for improvement;
- In-house training developed and delivered;
- Involve key stakeholders.



EOC Facilities

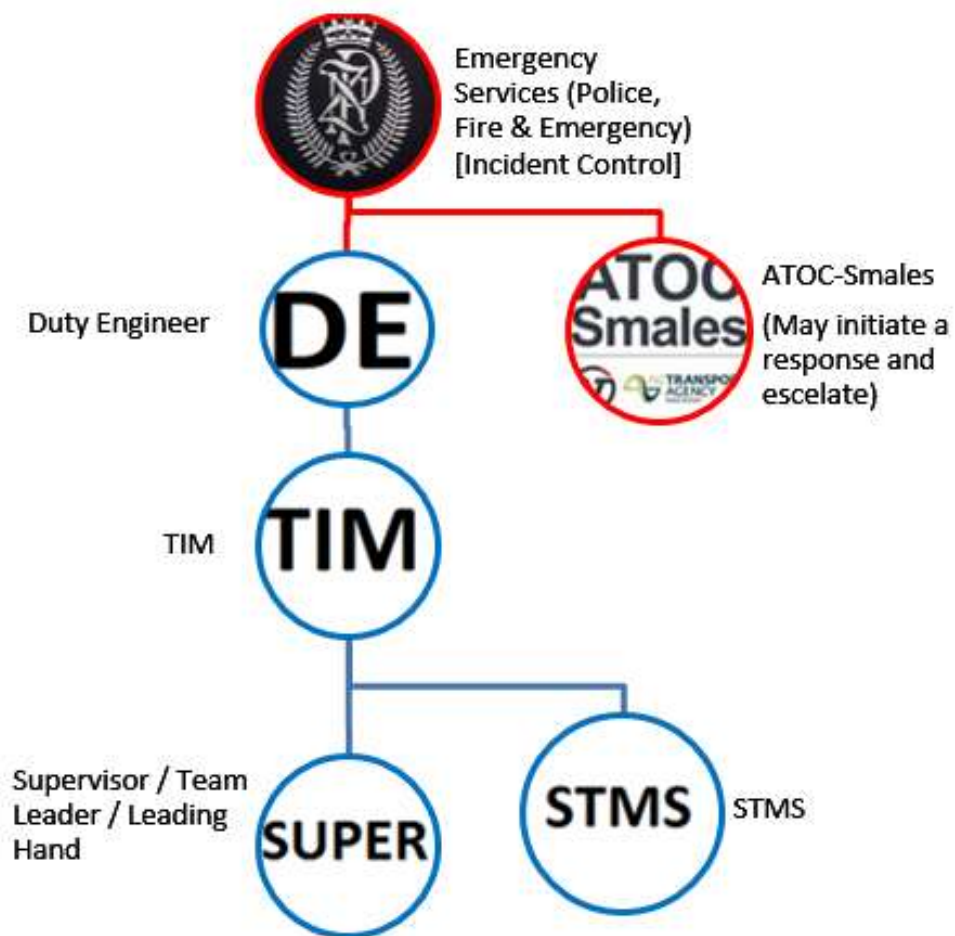


AMA Emergency Operations Centre (EOC)

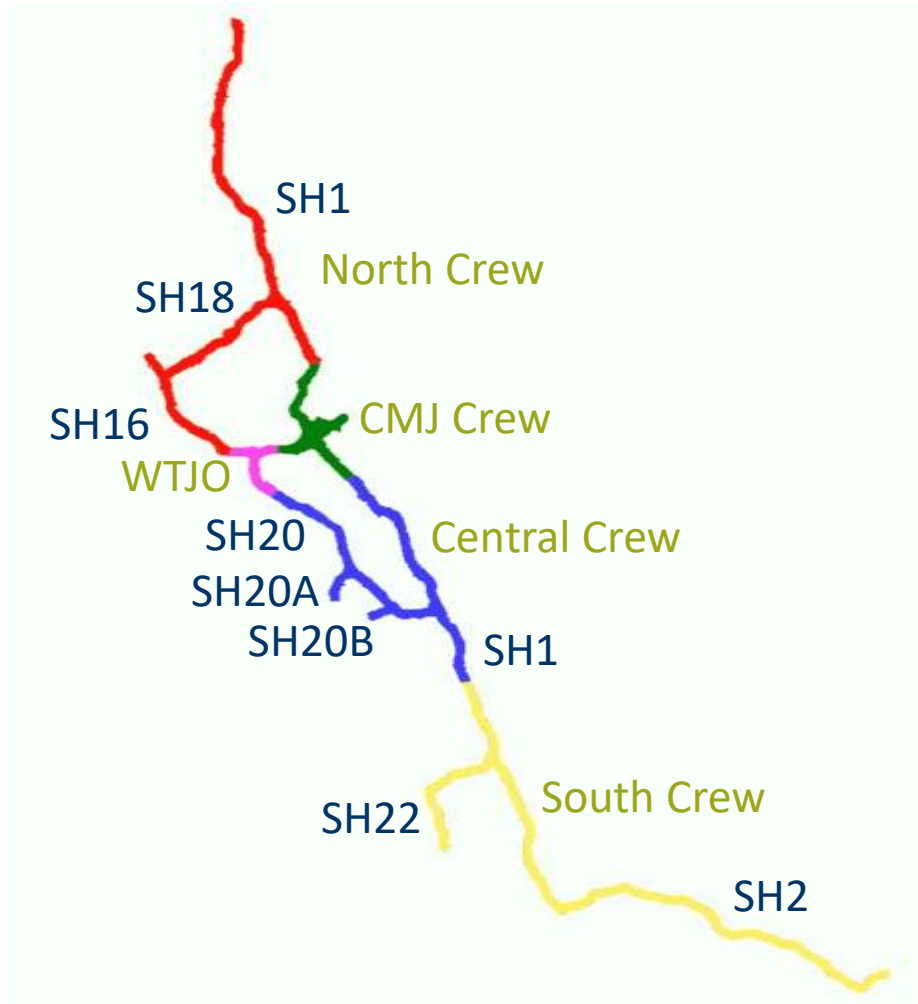


Traffic Incident Manager (TIM)

Performs the role of NZTA recovery Manager:



Preparedness: Incident Response Crews - Day



- Traffic Response Unit (Floating)

Preparedness: Incident Response Crews - Night



- TRU On Call
- Duty Engineer On Call

Incident Response Crews



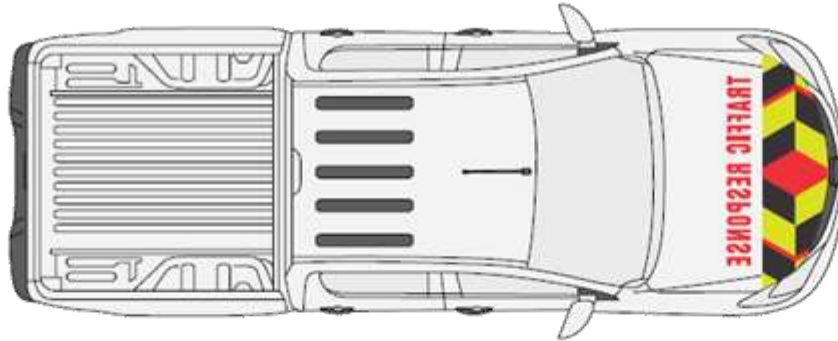
Incident Response Crews



‘Getting there quicker’

Enhancing our ability to attend as soon as possible

- Development of a traffic response TMP
- Registration of vehicle livery to the Agency
- Vehicle lighting fit out



Do more: Traffic Response Unit



Do more: Traffic Response Unit



Clearing Blocked Lanes

Push Bars – Nudge Bars



Clearing Blocked Lanes



Do more: Tow Truck



Do more: Traffic Response



TRU Equipment

Spare PPE &
Investigation
Equipment

Charging
station

Fire
Extinguishers

Welfare
Amenities

First Aid Kit

Vehicle Recovery

- Water
- Petrol
- Diesel
- Jack
- Broom
- Impact wrench
- Tow Rope
- Small Tools
- Jump starter



Blower

Delineation
Devices

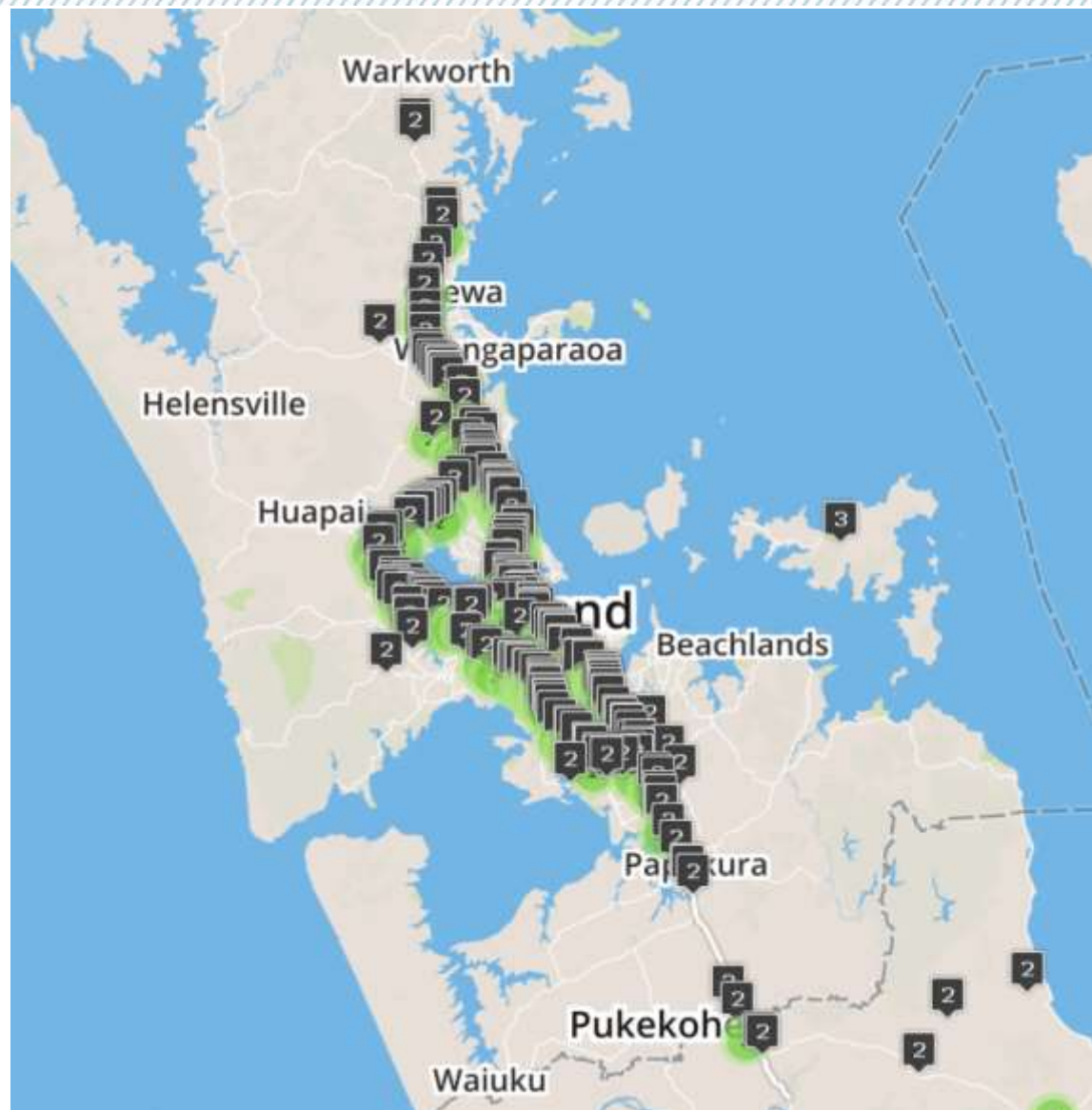
Spill Kit

TRU Functions



Data capture: Mobile Road

Settings	Inspect	0 Results
For Support	021 151 2360	
Auto Comment	<input type="checkbox"/>	
Auto Photo	<input type="checkbox"/>	
RAMM Location Text	<input type="checkbox"/>	
Photo Long Edge	800 px - higher resolutions may not work on older devices	
Driver Name	<input type="text" value="YOUR NAME"/>	
Inspector Name	<input type="text" value="YOUR NAME"/>	
Button Schema	AMA Incident INCIDENT MODE	
e-mail	<input type="text" value="YOUR.NAME@ama.nzta.govt.nz"/> Separate multiple e-mail addresses with ;	
Advanced Settings (Optional)	AMA.111	
Enter code	<input type="text" value="AMA.111"/> <input type="button" value="Log in"/>	
Organisation	AMA TIM	
Master Report	<input type="button" value="Manage"/>	



Knowledge Transfer

Road Incident Management Guide (Draft 2017)

Comprehensive Edition



**Auckland Motorways**

RIMG-TM1 Closure of Interior Lane(s)

Although the closure of interior lane(s) without the left or right lane being closed is not described in COPTTM, there were overseas studies and guides that support the use of this method to increase capacity and reduce queuing on the motorway.

The STMS can choose to deploy COPTTM style multi-lane closures covering the interior lane(s) if operating speed is a concern.

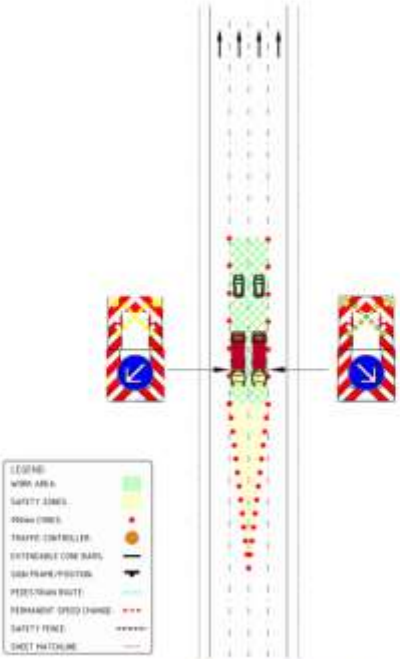




Figure 3: Splitting Traffic, Not Closing Middle Lanes



For more information
Phone: 0800 12 10 106
Email: help@nzta.govt.nz



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End

Questions.