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# **Temporary Traffic Management – Traffic Signal Approval Policy – A recap**

Andrew Reilly  
A/ Major Projects Interface Manager

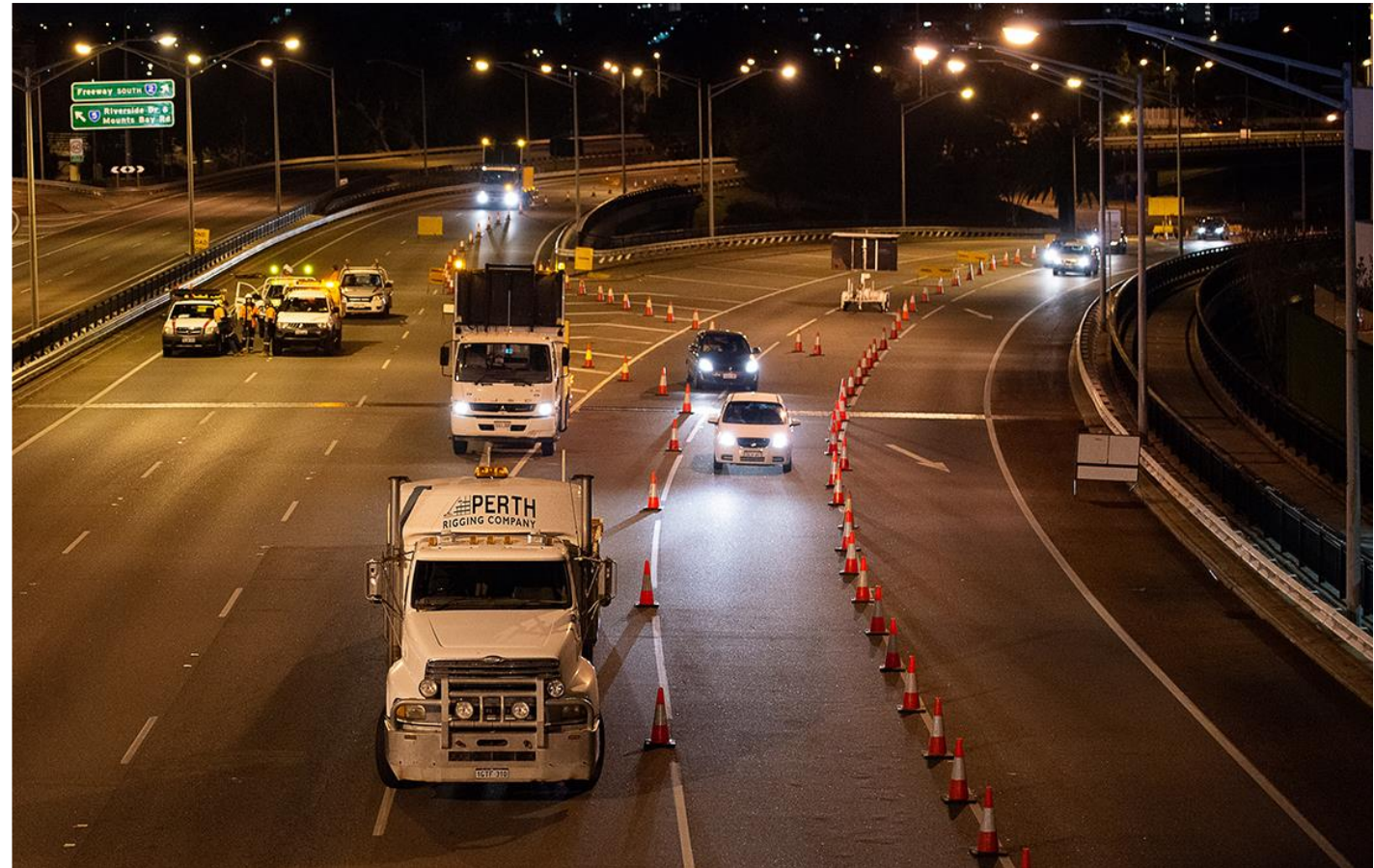
- The Commissioner of Main Roads, under Regulation 297 of the Road Traffic Code 2000, has the sole authority to erect, establish or display, and alter or take down any traffic control signal in Western Australia. To this extent, all alterations that affects signals must be formally approved by Main Roads.
- Main Roads have always required contractors to seek approval to work at signals. Since the introduction of Road Planned Interventions in 2013, this process has become more **streamlined**. This policy outlines the existing process for works at signals in a **chronological order**.
- The policy also details **further technical information** on working at traffic signals, including works involving hardware changes for the purposes of roadworks or major events.



## Temporary Traffic Management: Traffic Signal Approval Policy Network Operations

Version No. 2.0  
March 2020

- 12 months industry engagement
- Draft was viewed over 2,000 times
- Local Government, IPWEA, Traffic Management companies, Main Roads Regions, RTM's, RTO's were all consulted with
- Received 44 responses





# When is approval required?

- Alteration to the function of the traffic signals or signal display (e.g. flashing yellow)
- Closure of a traffic lane (including tapers or road closures):
  - a) **within** a signalised intersection,
  - b) **within 30m of the stop line** on the approach,
  - c) **within 30m of the adjacent stop line** on the departure,
- **Closure of any part** of a signalised dedicated turning lane.



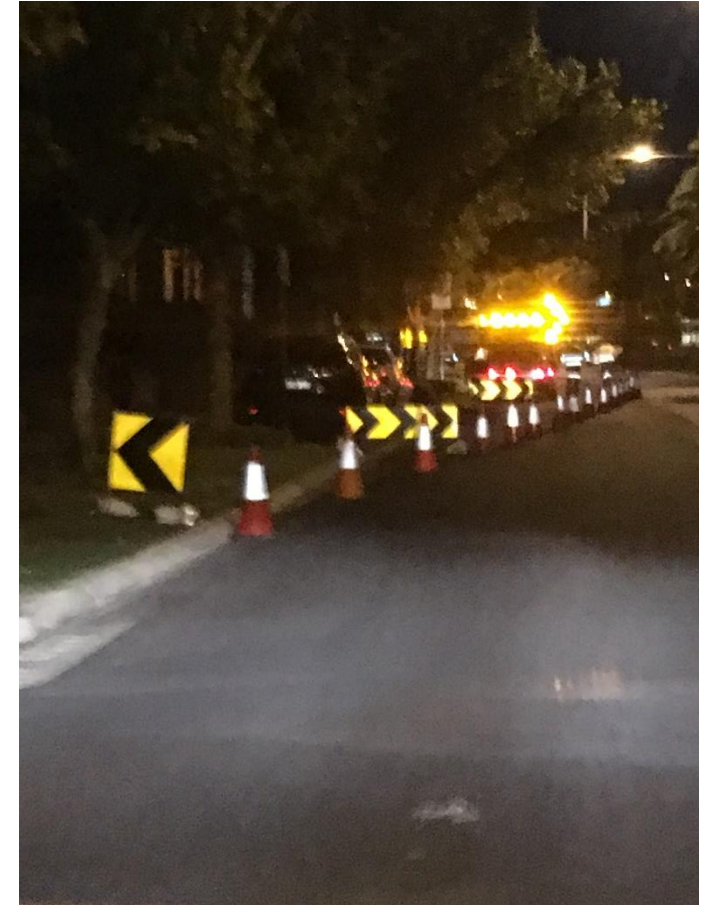
## What does RPI do with your submission?

- Review plans for accuracy and effectiveness
- Provide advice and feedback to stakeholders
- Check for conflicting work
- Consult with SCATS Team regarding signal changes
- Issue approved temporary traffic signal diagrams (LM drawings)
- Provide approval for Variations – Standards and/or Code of Practice



## After Approval

- Inform Main Roads Communications Team
- Relay closure information to the Traffic Signal Operators
- Provide support to the Road Network Operations Centre (RNOC) Control Room staff
- Arrange audits of high risk / high impact work activities
- Investigate non-compliance or underperformance of companies registered with the Traffic Management Company Registration Scheme



## Road Planned Interventions Applications Dashboard

Report Dates: October-2020 to October-2021

Change in Applications Received

**+33%**Report Applications 2081  
Baseline Applications 1568

Change in Applications Approved

**+28%**Report Applications 1752  
Baseline Applications 1373

Baseline Dates: October-2019 to October-2020

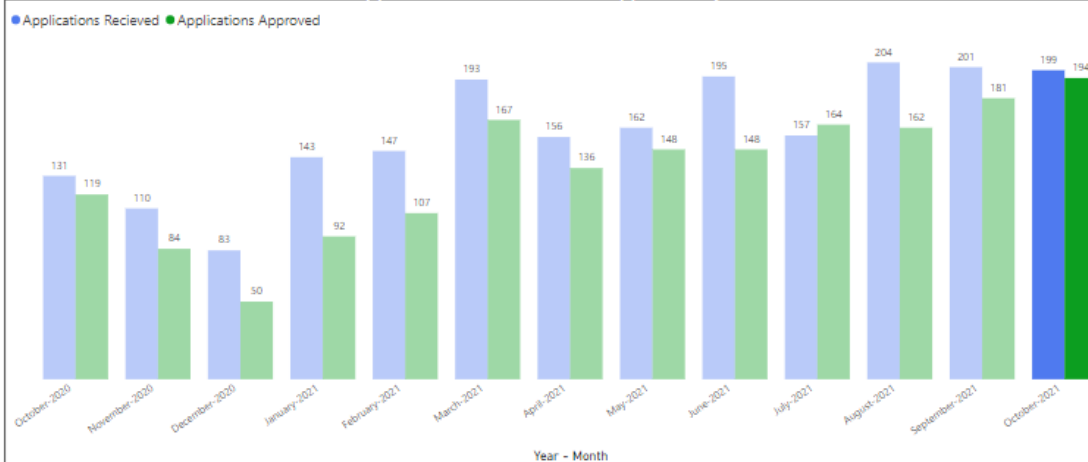
Change in Average Days for Approval

**-15%**Report Duration 9.3  
Baseline Duration 10.9

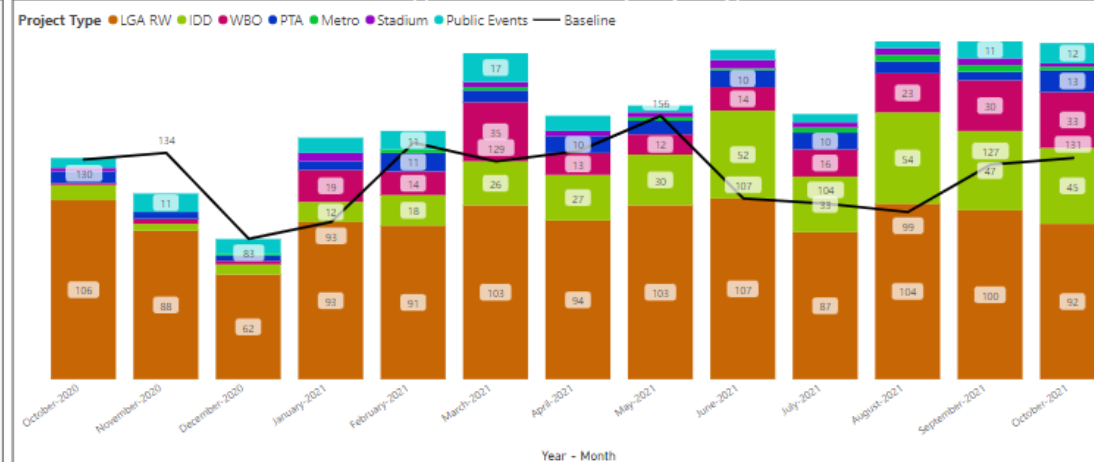
Change in Traffic Signal Applications Received

**+34%**Report Applications 2934  
Baseline Applications 2195

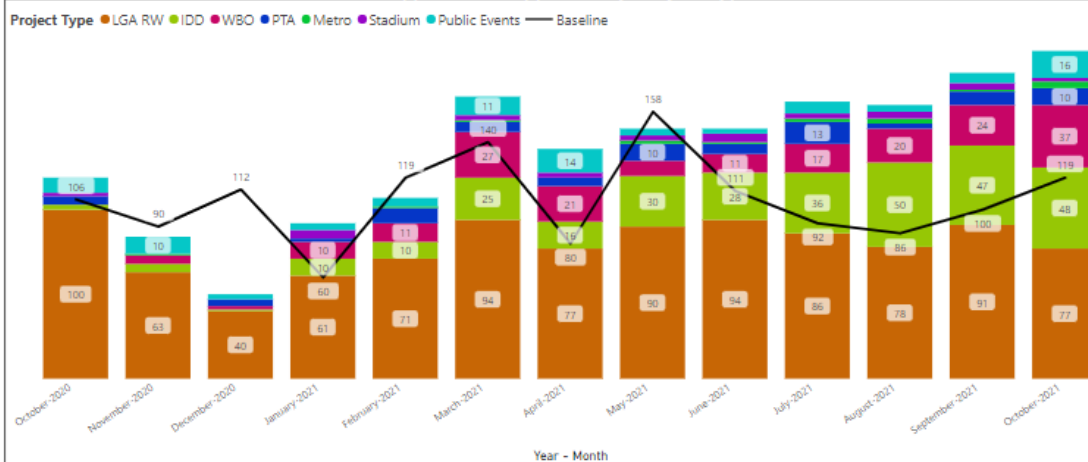
Applications Received and Approved by Month



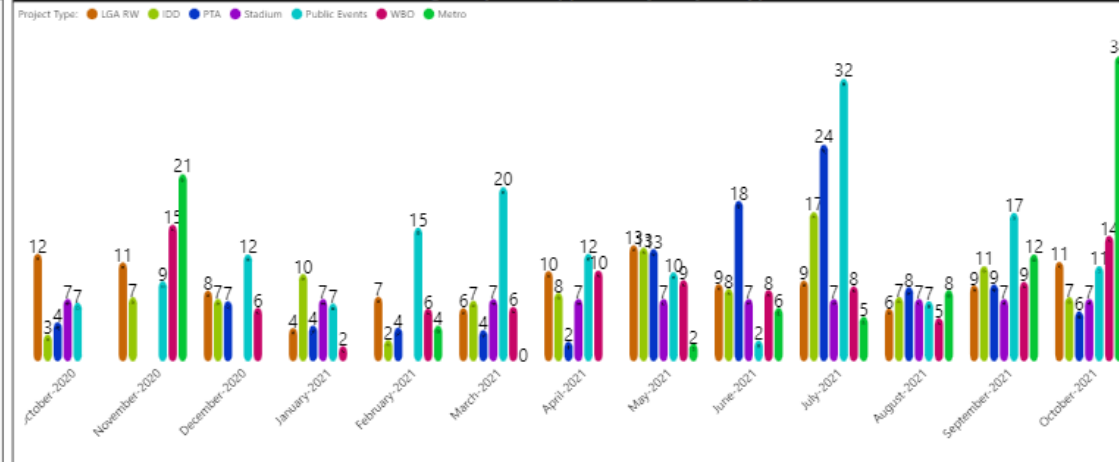
Applications Received by Project Type



Applications Approved by Project Type



Average Days for Approval by Project Type





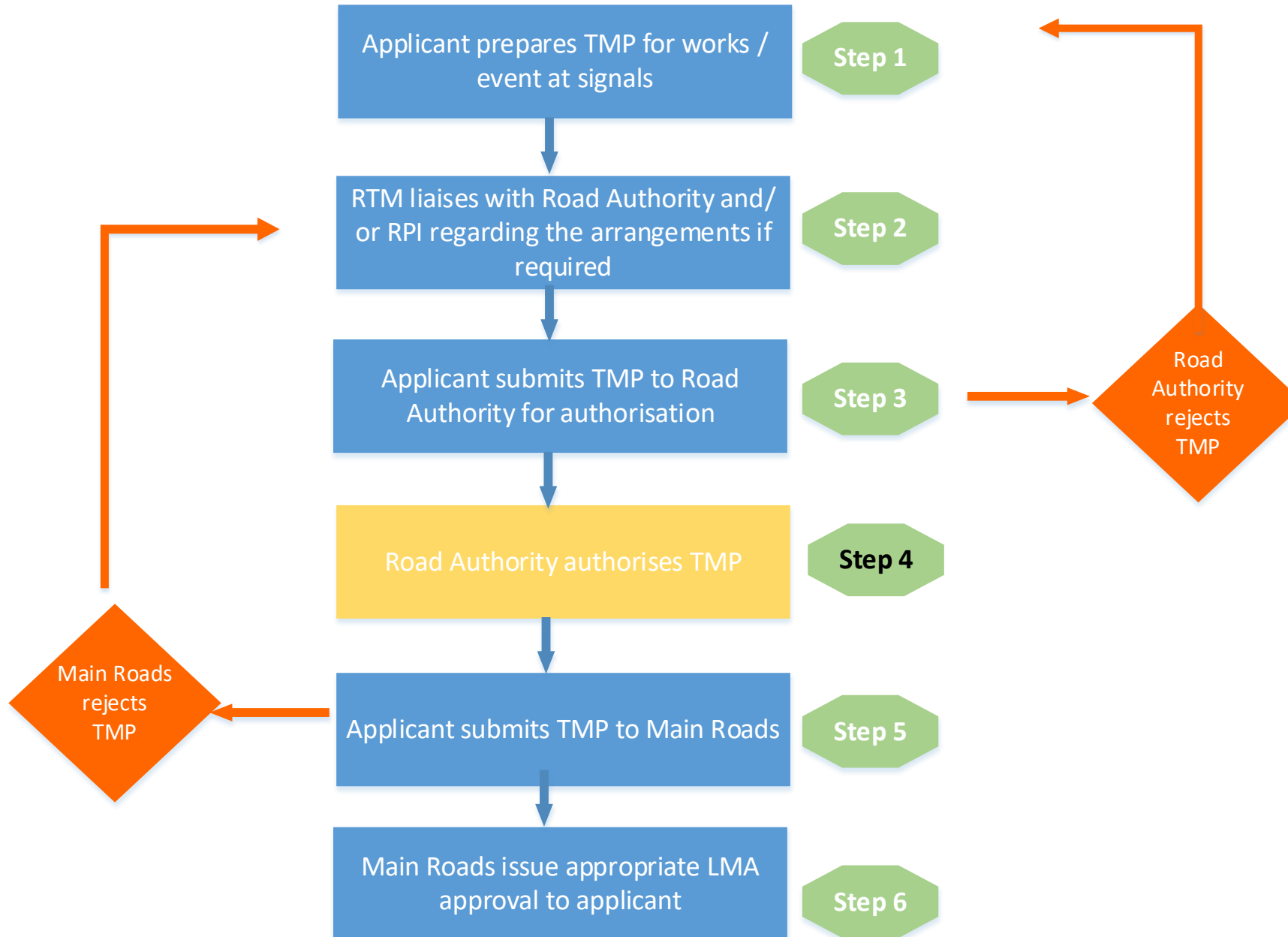
# Traffic Management decision table

	CONSEQUENCE CATEGORIES				
	INSIGNIFICANT	MINOR	MODERATE	MAJOR	CATASTROPHIC
<b>Transport Services</b>	<ul style="list-style-type: none"> <li>Minimal impacts to customers ( minimal drop in patronage or minimal level of congestion, e.g 30 - 60 seconds travel time delay).</li> </ul>	<ul style="list-style-type: none"> <li>Short-term impact to customers ( short-term drop in patronage or isolated congestion, e.g 2 minutes travel time delay)</li> </ul>	<ul style="list-style-type: none"> <li>Medium impact to customers ( medium-term drop in patronage or medium level of congestion, e.g 5 minutes travel time delay).</li> </ul>	<ul style="list-style-type: none"> <li>Non-critical service infrastructure is not operational and cannot be rectified.</li> <li>Substantial impact to customers ( substantial drop in patronage or substantial level of congestion, e.g 5 -10 minutes ).</li> <li>Queues extending to surrounding intersections</li> </ul>	<ul style="list-style-type: none"> <li>Severe impact to customers ( severe drop in patronage or severe level of congestion, e.g greater than 10 minutes travel time delay)</li> <li>Queues extending to surrounding intersections</li> </ul>
<b>Reputation and Trust</b>	<ul style="list-style-type: none"> <li>Isolated local community or individual's issue-based concerns.</li> <li>Low profile media attention.</li> </ul>	<ul style="list-style-type: none"> <li>Local community impacts and concerns.</li> <li>Occasional once-off negative media attention.</li> <li>Trust issues raised.</li> </ul>	<ul style="list-style-type: none"> <li>Sectional community impacts and concerns publicly expressed.</li> <li>Increased negative media attention.</li> <li>Loss of confidence and trust by community and stakeholders in agency processes and capability.</li> <li>Ministerial concern.</li> </ul>	<ul style="list-style-type: none"> <li>Substantial and prolonged community impact and dissatisfaction publicly expressed.</li> <li>Consistent negative media attention.</li> <li>Criticism and loss of confidence/ trust by community and stakeholders in agency processes and capability.</li> <li>Ministerial intervention.</li> </ul>	<ul style="list-style-type: none"> <li>Severe adverse community impacts and condemnation.</li> <li>Extreme negative media attention.</li> <li>Consistent ongoing community loss of confidence and trust in agency capabilities and intentions.</li> <li>Government intervention.</li> </ul>
<b>Business or Project Operations</b>	<ul style="list-style-type: none"> <li>Minimal delays to activities.</li> <li>Up to 5% variation in KPI or objective.</li> </ul>	<ul style="list-style-type: none"> <li>Short-term delays to activities.</li> <li>5% to 10% variation in KPI or objective.</li> </ul>	<ul style="list-style-type: none"> <li>Medium delays to activities.</li> <li>10% to 25% variation in KPI or objective.</li> <li>One or more projects is significantly impaired.</li> </ul>	<ul style="list-style-type: none"> <li>Substantial delays to activities.</li> <li>25% to 50% variation in KPI or objective.</li> <li>One or more critical programs or projects cannot be delivered.</li> </ul>	<ul style="list-style-type: none"> <li>Activities ceased.</li> <li>More than 50% variation in KPI or objective.</li> <li>Multiple critical programs or projects cannot be delivered.</li> </ul>

		CONSEQUENCE CATEGORIES				
HEATMAP	DURATION	Insignificant	Minor	Moderate	Major	Catastrophic
	Permanent changes			TSAP required		
	Over two years			TSAP required		
	One to two years	4	9	10	11	12
	Six months to one year	3	6	10	11	12
	One month to six months	2	5	8	10	10
	One day to one month	1	3	5	7	9
Network Performance Oversight and Involvement						
Risk Rating		Network Performance Oversight				
Low (1-5)		Low – Network Performance involvement not required				
Medium (6-8)		Medium – Network Performance involvement required, Traffic analysis to be supplied if required				
High (9-10)		High – Network Performance involvement required, Traffic analysis and Linsig modelling to be supplied if required				
Very High (11-12)		Very High – Network Performance involvement required, Traffic analysis, Linsig modelling and microsimulation modelling to be supplied if required				



# Section 5 – Approval process



# Example of physical changes Karrinyup Rd bus hub – October 2019



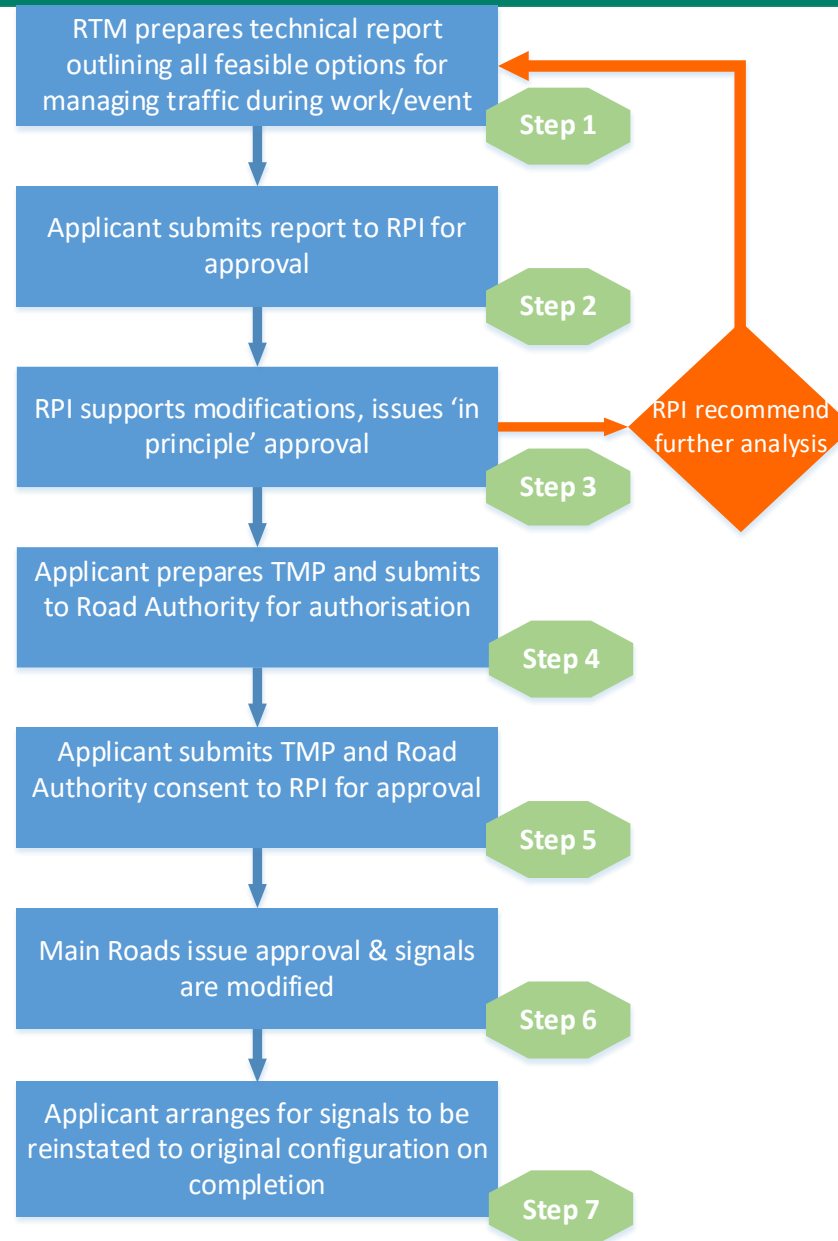


# Example of physical changes Karrinyup Rd bus hub – October 2019





# Section 6 – Approval process for physical changes to signals



- Covering Traffic Signal aspects
- Reinstatement of traffic signal loops
- <https://www.youtube.com/watch?v=pTeASOCJf4>
- Date changes
- Long Term Signal Modifications
- Roundabout Metering
- <https://www.youtube.com/watch?v=37DHBo7uGEO>
- Events are subject to differing timeframes
- Pedestrian considerations
- [Performance Dashboards](#)





# Thank you

## Questions?

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# Temporary Traffic Management

Presenters:

Brendon Wiseman – Road Safety Policy Manager

Gareth Peers – Road Safety Policy Coordinator

## Overview

- TTM Incidents
- Road Authority Responsibility
  - Instruments of Authorisation
- Code of Practice / AGTTM Update
- Austroads TTM Project
- Rural Roadworks Signage Review

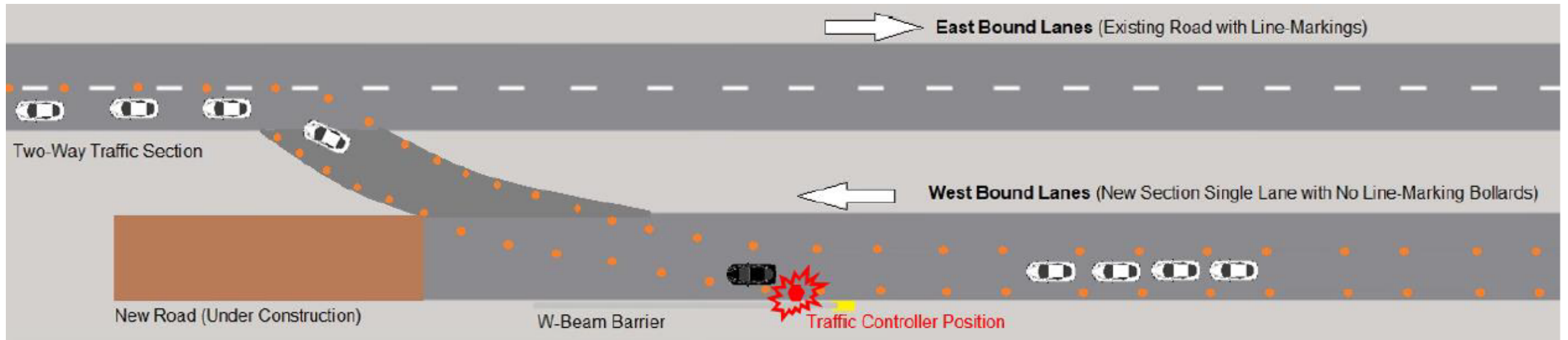
Jan 2020 – March 2021:

- 197 interaction of live traffic incidents:
- Trend is increasing - 12% increase from previous 12 month period
- 9 injuries – 2 fatalities and 1 permanent disability (leg amputation)
- Permanent disability had the potential to be a double fatality

Additionally, a roadworker was seriously injured in an incident on Mandurah Road on 1 August 2021



## Recent fatality on Reid Hwy Project



## Contributing factors:

- No TC or Prepare to Stop signs installed
- Stop-slow performed at peak time, minimal gaps in traffic
- Entered the live lane before vehicle had stopped
- TC turned his back on the approaching vehicles
- Confusing layout, lateral shift prior to TC point, recently sealed roadway with no line marking, wide lane with bollards for delineation



# Ravensthorpe Fatal Incident

## Possible contributing factors:

- Inadequate safe work method statement for the task
  - Crossing live lanes with no spotter
  - Not using shadow vehicle
- Vehicle mounted warning device may have been obscured by signs and devices in the trailer





# Serious Incident – Great Eastern Hwy, Rivervale

## Great Eastern Hwy Incident - issues identified following ICAM:

- Removing taper in wrong order with back to traffic with no spotter or shadow vehicle – i.e. from start of taper to the closed lane
- Taper was removed prior to the arrow board being packed up while in the live lane
- One TC was putting the chains of the trailer on the ute and the other was behind the trailer lowering the arrow board when he was hit
- No details in SOP or SWMS specifically on how to safely install and remove the arrow board.
  - SWMS does state 'ensure escape route maintained at all times and avoid standing at the rear or immediate front of vehicles.' 'Use vehicle with flashing vehicle (sic) as physical barrier when packing down signs in front.'



## Serious Incident – Mandurah Road

Possible contributing factors:

- MOP allegedly driving while affected by alcohol
- Position of the Truck controller standing in the closed lane between the paver and live traffic with no protection
- Working closed lane against traffic



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# **Northern Territory Coroner's Report – Roadwork Fatality**









## Findings

- No Advance Warning
- Poor delineation
  - Barriers used with no delineation devices
  - Old line marking leading road users into barrier
  - Flashing arrow board incorrectly placed
- Poor lighting
- Crossover length and curve geometry
  - Lateral shift of 18 m (5 lanes) over only 45 m at 60 km/h
  - Reduction in curve radius from 750 m to 55 - 70 m

## Contributing factors to the non-compliance

- Traffic management changes not undertaken by a suitably qualified person
- The Traffic Guidance Scheme was not amended – initial approved TGS was compliant
- No formal risk assessment or record keeping of the changes
- No formal independent audit of the site by a suitably qualified person following the changes
- Not clear who was responsible for TTM compliance...



## Coroner's Findings

"In my view, the government, through the Department, has an obvious duty to the public to ensure safety on the roads ... the Department cannot and should not be allowed to completely absolve itself of this duty of care to the public, by delegating or contracting out completely that duty."

# DIPL and BMD charged by WorkSafe NT – face fines of up to \$1.5 million

## Department of Infrastructure, Planning and Logistics:

- Failed to ensure the provision and maintenance of a work environment without risks to health and safety by allowing the setup of a traffic diversion that posed a risk of serious injury or death to motorists.
- **Failed to provide a safe system of work by not having an appropriate audit compliance system.**
- **Failed to ensure the provision of information and training of DIPL staff to properly manage and ensure compliance with Australian Standards of the project.**

## BMD Constructions:

- Failed to ensure the provision and maintenance of a work environment without risk to health and safety by setting up a road diversion that posed a risk of serious injury or death to motorists.
- Failed to ensure the provision and maintenance of safe plant and structures without risk to health and safety by using interlocking crash barriers without reflective bollards which was not compliant with Australian Standards.
- Failed to ensure the provision of information, training, instruction or supervision of their employees to understand that a traffic diversion could only be implemented in accordance with an approved traffic control diagram that had been audited as safe.

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# Road Authority Responsibly



## Duty of Care of Road Authorities

- The road authority owes a duty of care to all road users including drivers, cyclists, passengers, pedestrians, and adjoining land users.
- In most instances, a duty of care will be conceded when the road authority which is named as a defendant has planned, constructed or maintained a road upon which the road user was injured.
- The law imposes a duty of care upon anyone who should foresee that their acts or omissions are likely to affect someone else
- 'Road authorities must do what is reasonable to be aware of deficiencies in their own road system, to assess and prioritise them and have a system for remedying...'  
(Austroads Guide to Road Safety Part 4)
- They will only be held liable if they fail to exercise a reasonable standard of care.

# Occupational Safety and Health Act

## 22. Duties of persons who have control of workplaces

- (1) A person that has, to any extent, control of —
- a) workplace where persons who are not employees of that person work or are likely to be in the course of their work; or
  - b) the means of access to and egress from a workplace,

shall take such measures as are practicable to ensure that the workplace, or the means of access to or egress from the workplace, as the case may be, are such that persons who are at the workplace or use the means of access to and egress from the workplace are not exposed to hazards.

The Commissioner of Main Roads has authority under the Road Traffic Code to:

***"erect, establish or display and alter or take down any road sign or traffic control signal."***

The CMR can authorise bodies under Regulation 297 (2) of the Road Traffic Code to utilise traffic signs and devices as stated above.

Authorised bodies **shall develop and implement procedures that will satisfy the CMR** that the traffic management implemented will conform and comply with the requirements in the Traffic Management for Works on Road Code of Practice.



# ACCOUNTABILITY

A lack of procedural guidelines for authorising traffic management at road works sites may constitute a breach of the Act. Therefore, Road Authorities have a duty of care to all road workers and road users at road works sites on their network.



## Code of Practice / AGTTM:

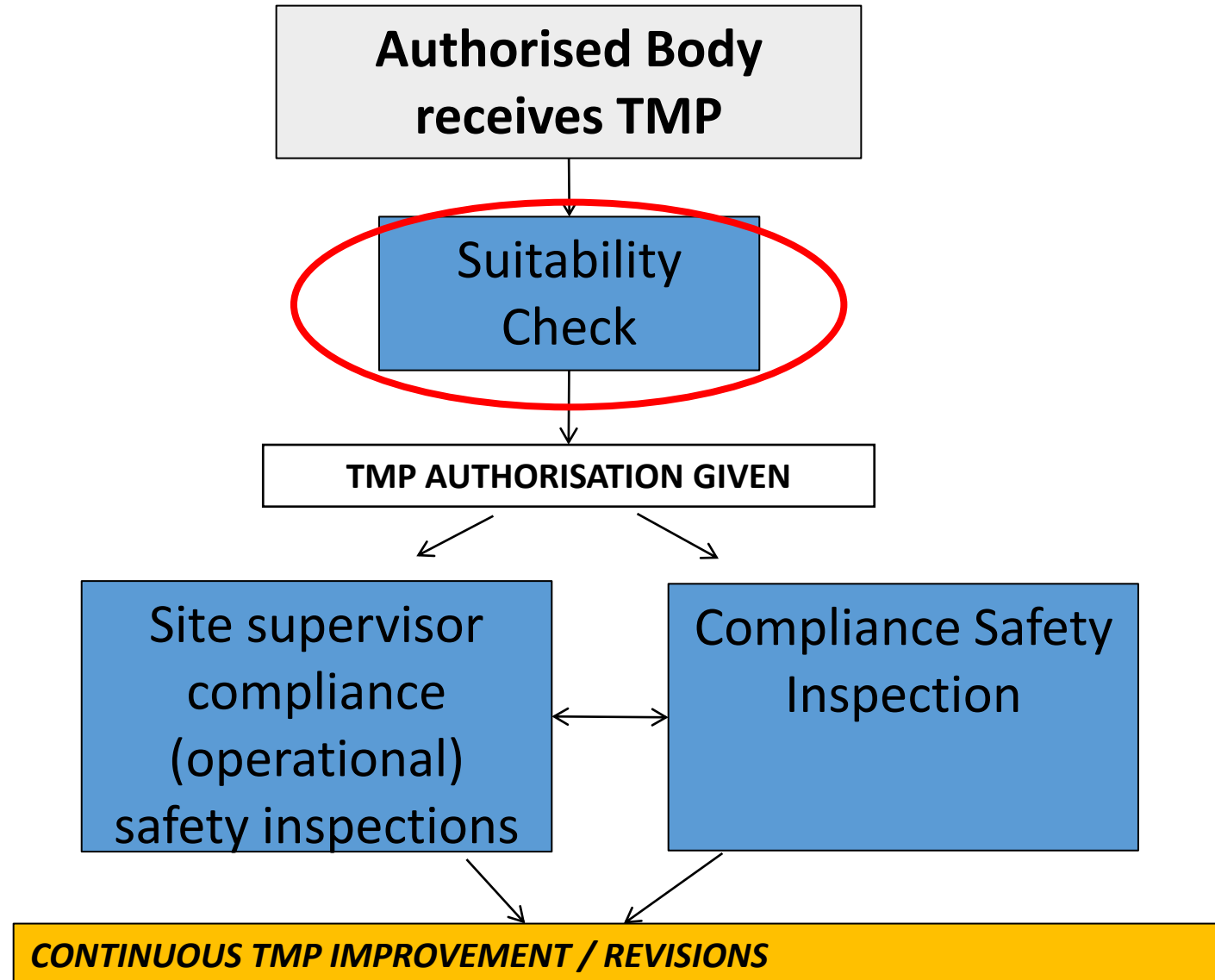
Road Infrastructure Manager, stating they are responsible for ensuring that all TTM measures are in accordance with Jurisdictional requirements, AS1742.3 and the AGTTM.

This refers to the general responsibility of Road Infrastructure Managers to undertake a high level check of the proposed traffic management focussing on any issues that may present a safety or operational risk to the road network at the particular location. The Road Authority or Road Infrastructure Manager is not responsible for ensuring every aspect of the TMP is compliant with all TTM requirements, as this is the responsibility of the TMP designer, the person who checks the TMP (from the traffic management company) and the Roadworks Traffic Manager (RTM) who reviews and endorses (if applicable) the TMP to ensure that the plan is compliant with all TTM requirements.

The Road Authority has a duty of care to the safety of road users and road workers within their jurisdiction, and as a result they should conduct a review that focuses on the TMP's suitability in catering for all road users, speed zone appropriateness, traffic efficiency and ensuring after care and staging Traffic Guidance Schemes (TGS) are provided. The Suitability Check checklist may assist officers within the road authority fulfil this obligation (see section 5.1.3).

## LGA'S REVIEWING TMPS

- The authorising officer in the local government will NOT be required to assess the TMP in great detail against standards;
- However, the authorising officer should have a good knowledge of the network and has a duty of care to the safety of road users and road workers within their jurisdiction.
- Ideally those undertaking these checks should be accredited Worksite Traffic Managers; alternatively they should have experience in the traffic management area.





## Declaration

I XXXXX (AWTM Cert No XXXX) declare that I have designed this Traffic Management Plan following a site inspection on XX/XX/XX. The Traffic Management Plan prepared, **subject to the variations approved**, is in accordance with the Main Roads Code of Practice and AS 1742.3

Signature: .....

Date: XX/XX/XX

	Name / Company	Accreditation Details	Date	Signed
TMP designed by	XXXXXX	AWTM XXX	XX/XX/XX	
RTM reviewed and Endorsed by	XXXXXX	RTM XXXX	XX/XX/XX	
Compliance Audit to be undertaken by:	XXXXXX	RTM XXXX	XX/XX/XX	
Service Authority Approval	N/A	N/A		
Road Authority Authorisation	Road authority authorises the implementation of traffic signs and devices is given for Traffic Management Plan No. XXX-XXXXX (Note: this can be provided by the road authority via email referencing the TMP and Rev No.)			
	Signed Date	Authorised Officer		
	(Print Name)	Position		

# Protocol and Procedures for Traffic Management

- Templates developed in conjunction with the City of Nedlands
- Ensures the Authorised Body will conform and comply with the Code of Practice and the conditions within the Instrument of Authorisation to the satisfaction of the Commissioner of Main Roads
- Found on [Main Roads](#) website: Technical & Commercial > Working on roads > Authorised Agreements

Insert Authorised Body Header

## Procedure Manual: Traffic Management for Works on Roads

### Overview

Any party undertaking work within the [insert authorised body] shall assess the need for a Traffic Management Plan (TMP). The [insert authorised body] shall check the assessment to ensure a TMP has been provided where required. Where a TMP is required the [insert authorised body] shall ensure that the TMP adequately provides for the safety of workers and road users, while maintaining an adequate level of service. All TMP's shall be prepared, reviewed and implemented by a person holding appropriate Main Roads WA accreditation. This will occur prior to the [insert authorised body] authorising the TMP for implementation.

### Quality Assurance

Prior to proceeding with any TMP, requirements for assurance of quality shall be as follows:

1. Personnel
  - a) The person preparing the TMP is Advanced Worksite Traffic Management (AWTM) accredited;
  - b) The person reviewing the TMP is Worksite Traffic Management (WTM) or AWTM accredited OR has an equivalent level of knowledge and experience;
  - c) The person reviewing the TMP has a Main Roads WA account and is subscribed to Traffic Management updates (go to [www.mainroads.wa.gov.au](https://www.mainroads.wa.gov.au) > My Account)
  - d) The person supervising / managing the implementation of the TMP is accredited with Basic Worksite Traffic Management (BWTM).
2. The Traffic Management Plan
  - a) The TMP has been checked for suitability. For guidance refer to MRWA Suitability Checklist (<https://www.mainroads.wa.gov.au> >Our Roads>Traffic

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# Common TTM Issues

Communication and Consultation

**Identify project /work parameters, including location, constraints and impacts**

Where applicable – break the works/project into stages

Identify risks of each stage

Analyse the risks, including a determination of likelihood and consequence

Identify treatment options using the around, through and past hierarchy

Evaluate each treatment option and assess for suitability

Implement selected risk treatment

Document risk identification, assessment and treatment in the TMP

Monitoring and Review





# Temporary Speed Zones

**No speed zone credibility  
= no compliance**



## Solutions for Speed Compliance

- Temporary alignments to achieve speed compliance (e.g. chicanes)
- Reduced Lane Widths
- Reduced Edge Clearances
- Portable Speed Humps
- Temporary Rumble Strips
- Pilot Vehicles
- Electronic / Variable Speed Signs
- Speed Feedback Signs





# **Not Considering Vulnerable Road Users**









This is the shared path provided on the opposite side of the road. It is not trafficable to cyclists or wheel chairs.





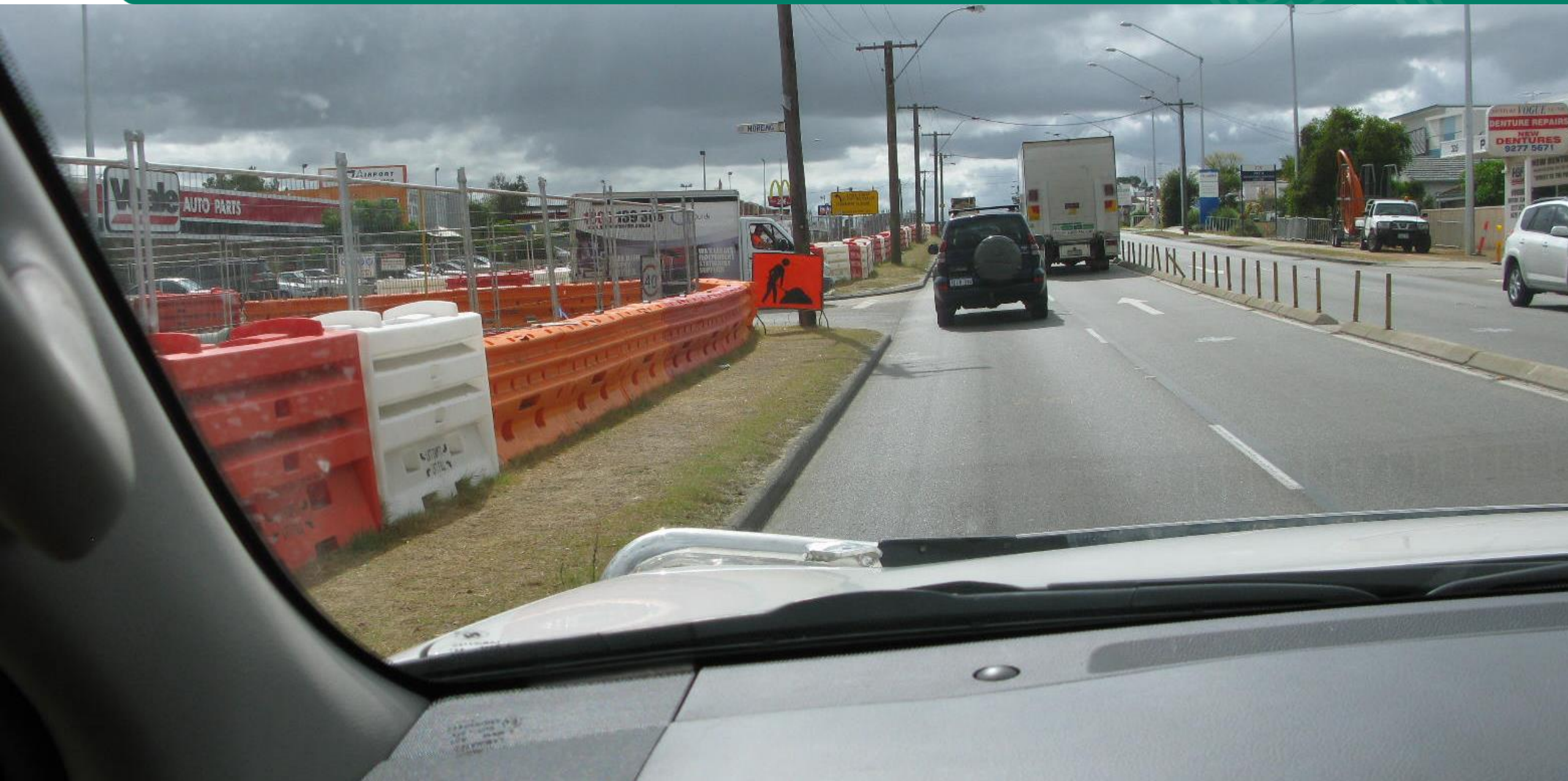




# Sign Placement



# Signs Obstructing Sight Distance







# Traffic Control - End of Queue Collisions





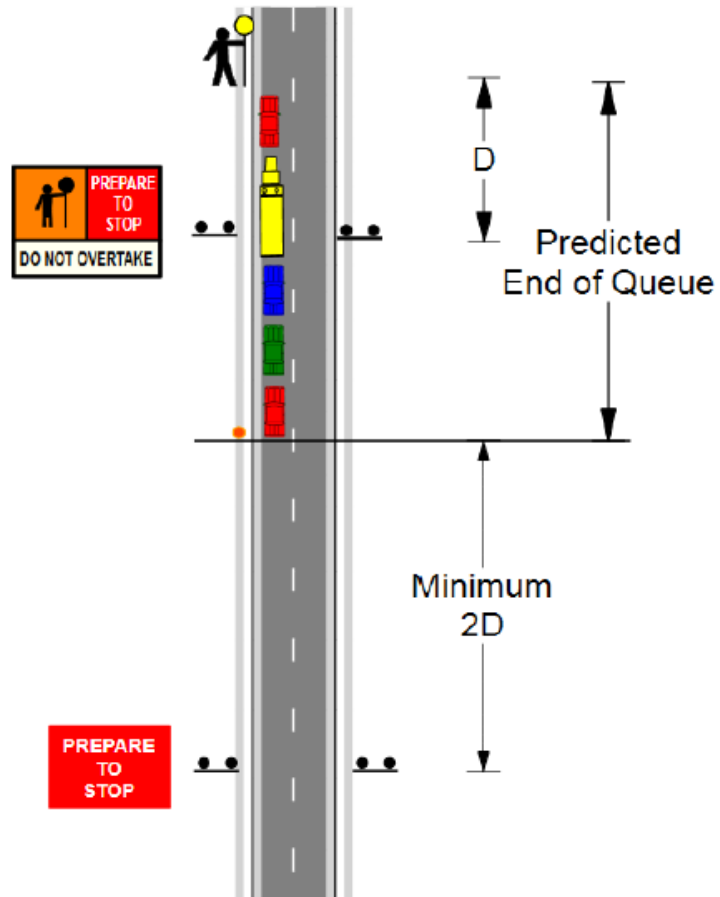
## Horror on our roads: One dead, four airlifted after Portland north crash



**One woman was killed and four others airlifted to Melbourne hospitals after a fully-loaded log truck smashed into stationary vehicles at road works north of Portland.**



# Fact Sheet - Traffic Control - Avoiding End of Queue Collisions



[www.mainroads.wa.gov.au](http://www.mainroads.wa.gov.au) > Our Roads  
> Temporary Traffic Management >  
Forms and Publications



## Night Time / Aftercare Hazards









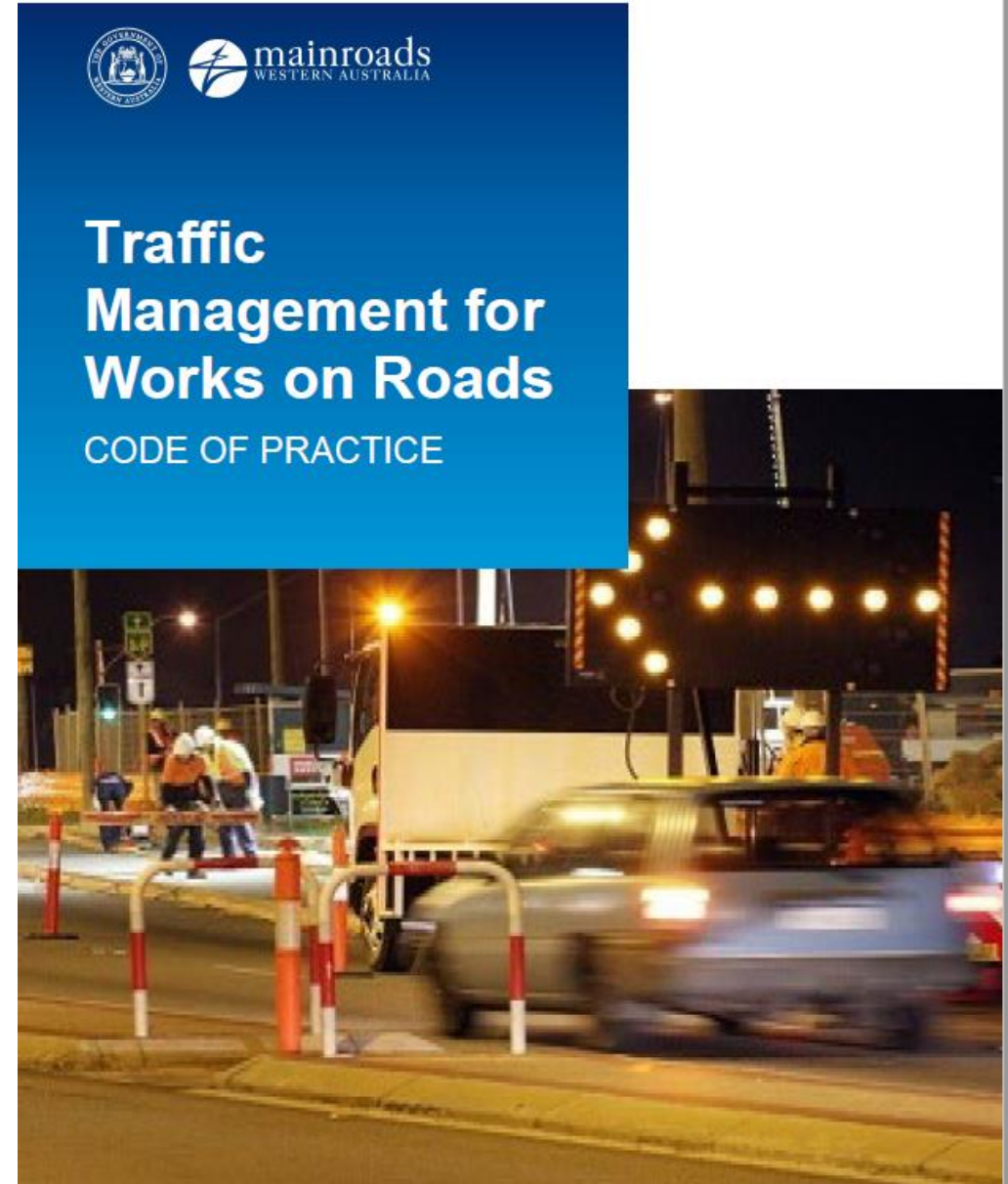


# **Traffic Management for Works on Roads Code of Practice / AGTTM version 1.1**

## Traffic Management for Works on Roads Code of Practice

### Section 4.2.5 Traffic Management Implementation and Removal:

- Requirement for person preparing the TMP to cover implementation and removal procedures as part of the works
- Consider installation procedure, use of shadow vehicle / TMA, look out person
- Consider additional TGS, e.g. for removal of pavement marking, installation of temporary line marking, etc.



## Section 4.3 Risk Management

- Generally expected that pre-treatment risk rating for workers near live traffic have a pre-treatment risk of high or greater e.g.:

Risk Event	Consequence	Pre-treatment Risk		
		Likelihood	Consequence	Risk Rating
Distracted or impaired motorist may crash into workers setting up the traffic management.	Serious injury to workers.	Likely (B)	Major (4)*	Very High (16)
		Possible (C)	Major (4)*	High (12)

\*Single fatality or major injuries or severe permanent disablement

## 6.8 Traffic Control

- 4 cones down centreline may be omitted when supported by a risk assessment
- Addition of Queued Traffic Signs (Main Roads MMS)
- Portable traffic control devices must be used:
  - a permanent speed limit of 90 km/h or more and over 2,000 vpd\*; OR
  - a permanent speed limit of 70 km/h or more and over 10,000 vpd\*.
- \*except at permanent traffic signals
- Main Roads is aiming to remove all manual traffic control (i.e. with Stop-Slow bats) on state controlled roads by mid-2022.





# Portable Traffic Control Devices (PTCD)

The following Portable traffic control devices are permitted for use in WA:

- Portable traffic signals:
  - All portable traffic signal systems that comply with AS4191: 2015 Portable traffic signal systems,
  - eStop, eStop M, eStop Auto (Arrow Emergency Systems)
  - Portable Traffic Light (Madison Technologies)
- Boom barriers
  - Portaboom (Traffic Access and Solutions)
  - eBoom (ArrowES) – only approved to be used with signals



## Traffic Management for Works on Roads Code of Practice

### • 6.9 Truck Mounted Attenuators

- Guideline name change: Requirements for the use of Truck Mounted Attenuators (TMAs) in WA – Code of Practice
- Move towards TMAs that meet MASH guidelines:
  - New TMAs not meeting MASH guideline won't be accepted
  - Phase out of current TMAs to be determined with industry
- Inclusion of TL2 TMA:
  - Exempt from 15 tonne GVM
- TL2 conditions of use:
  - Only to be used on roads with permanent speed of 80 km/h or less
  - Must have 60 km/h temporary speed limit
  - Not to be used where TMAs are mandatory



### Section 6.13 Shadow Vehicles:

- Should be considered to protect workers on foot at static worksites
- When using a TMA consideration should be given to moving the TMA to provide close protection to workers on foot

### Section 7.3 Speed Feedback Signs

Moving towards mandatory use of speed feedback signs at particular worksites. Should be considered on roads with 15,000 vpd or more and

- a temporary speed limit of more than 20 km/h below the posted speed (e.g. road with a permanent speed of 100 km/h reduced to 60 km/h); and
- workers are not protected by a road safety barrier; and
- single lane in one direction past the work area



## 7.4 Traffic Monitoring and Surveillance

The use of Body Cameras, Dash Cameras or other video surveillance is encouraged at temporary traffic management sites for the purposes of any of the following:

- Recording traffic incidents
- Recording traffic management inspections
- Site records
- Traffic monitoring
- As a deterrent or to record motorist non-compliance and/or aggressive behaviour.

Anyone that conducts any form of video surveillance must ensure they are following all relevant surveillance and privacy laws.

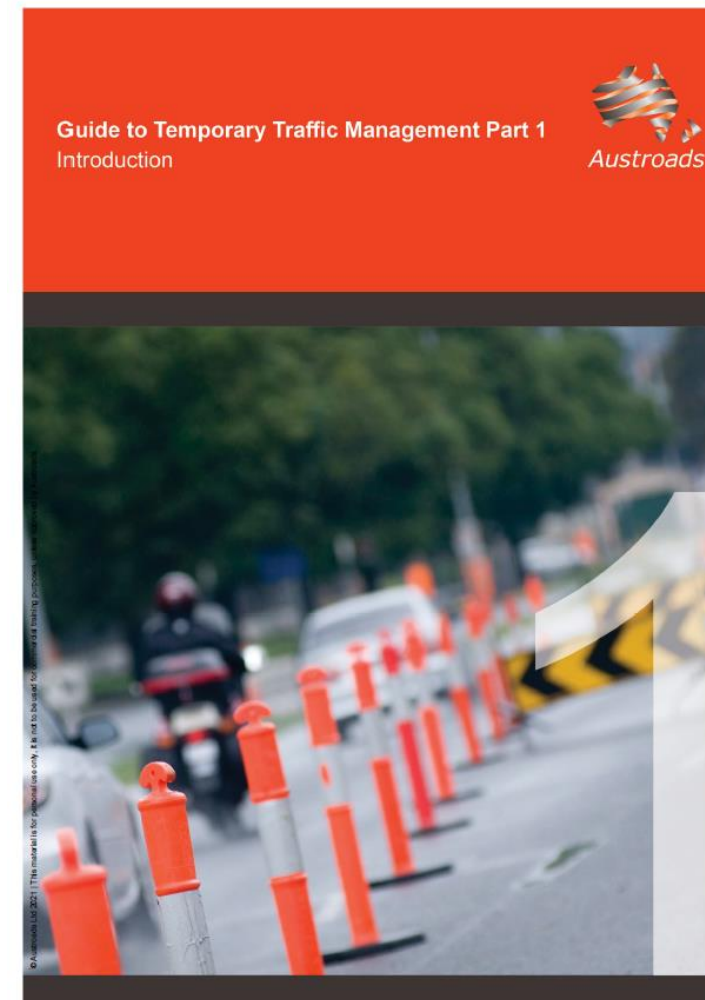


## AGTTM Version 1.1

Updates very minor, generally rectifying mistakes and adding clarifications examples:

- Replacing 'shall' with 'must'
- Part 3 Static Works: diagrams updated, additional conditions for desirable traffic lanes
- Part 4 Mobile Works: removed wording prohibiting workers on foot on cat 3 roads
- Part 7 Traffic Controllers: clarifying 'never step in front of moving vehicle'

Report and summary of updates on the Austroads website.



## **Austroads TTM Project**

- Road Categories
- Traffic Management Company Prequalification
- Harmonised Training

# Road Categories – AGTTM Part 8

	Category 1	Category 2	Category 3
Attributes	Any speed with 3000 VPD or less (e.g. rural roads, local streets)	Speed 60 km/h or greater and more than 3000 VPD (e.g. rural highways)	Any Freeway
	Speed less than 60 km/h and up to 10,000 VPD (e.g. urban roads)	Any speed with greater than 10,000 VPD (e.g. urban highways)	Any grade separated road with: Speed of 90 km/h or greater and 20,000 VPD or greater
		Any signalised intersection	

# Austrroads Temporary Traffic Management Company Prequalification Scheme

Roles	Road Category 1	Road Category 2	Road Category 3
Traffic Management Implementation	IMP1	IMP2	IMP3
Traffic Management Design	DGN1	DGN2	DGN3

- Based on the current Main Roads Traffic Management Company Registration Scheme with following key differences:
  - Will include the 3 road categories
  - Will include companies that design/prepare TMPs as well implementation (will include RTMs).
  - Is intended that Local Government Roads will be included



## AGTTM Part 8: Processes and Procedures Training Framework – Tiered approach

Role	Category 1	Category 2	Category 3
Traffic Controller (TC)	TC 1	TC 2	N/A
Traffic Management Implementer (TMI)*	TMI 1	TMI 2	TM1 3
Traffic Management Designer (TMD)*	TMD 1	TMD 2	TMD 3

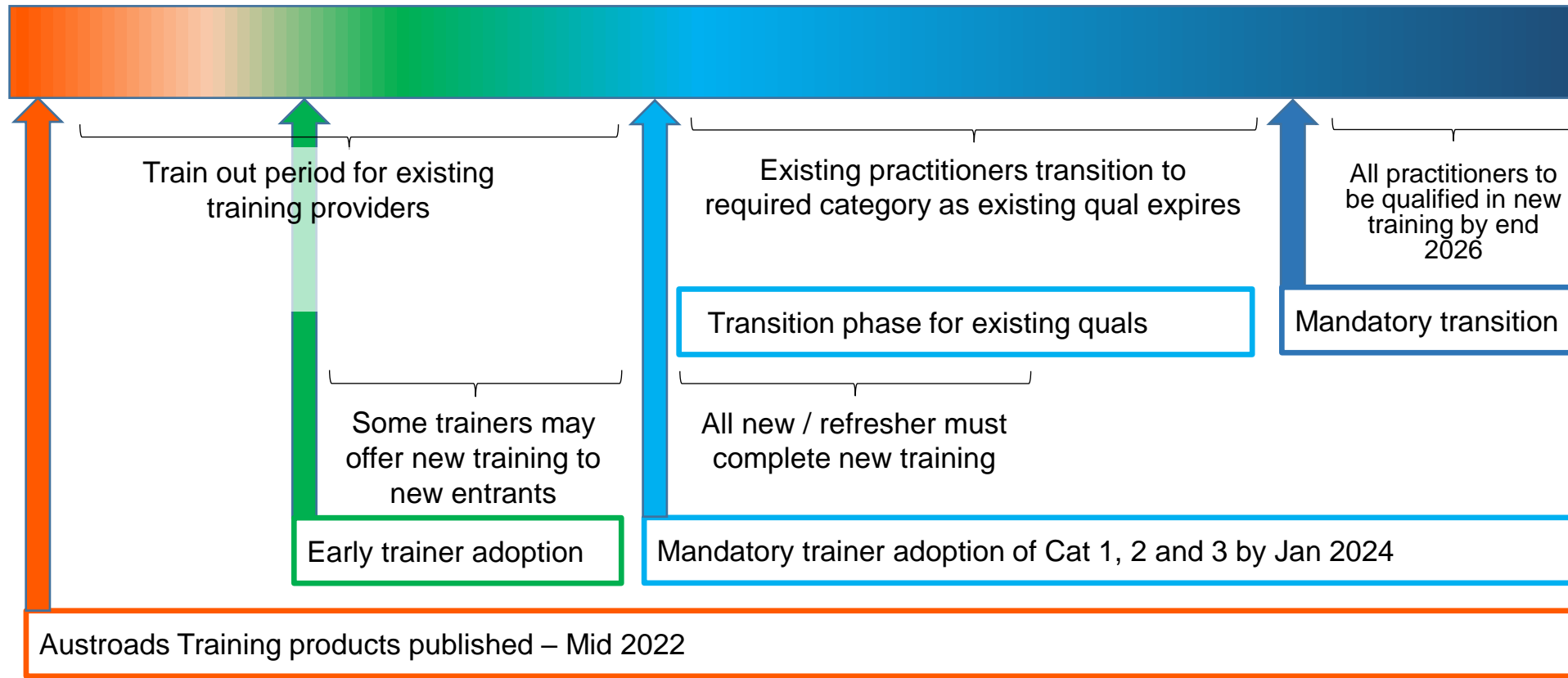
\*Includes Non-Practitioner accreditation

## Training Framework – WA Proposed future adoption

Role	Category 1	Category 2	Category 3
Traffic Controller (TC)	TC 1	TC 2	N/A
Traffic Management Implementer (TMI)*	TMI 1	TMI 2	TM1 3
Worksite Traffic Manager (WTM)	WTM 1	WTM 2	WTM 3
Traffic Management Designer (TMD)*	TMD 1	TMD 2	TMD 3
Roadworks Traffic Manager (RTM)	N/A	RTM 2	RTM 3

\*Includes Non-Practitioner accreditation

# Austroads Training - WA Transition



## Rural Roadworks Signage Review

- 13 recommendations all endorsed by the Minister
- Main Roads Implementation Committee formed chaired by Des Snook, EDMSR
- Main Roads appointed Project Manager to oversee implementation



## REGIONAL ROADWORKS SIGNAGE REVIEW

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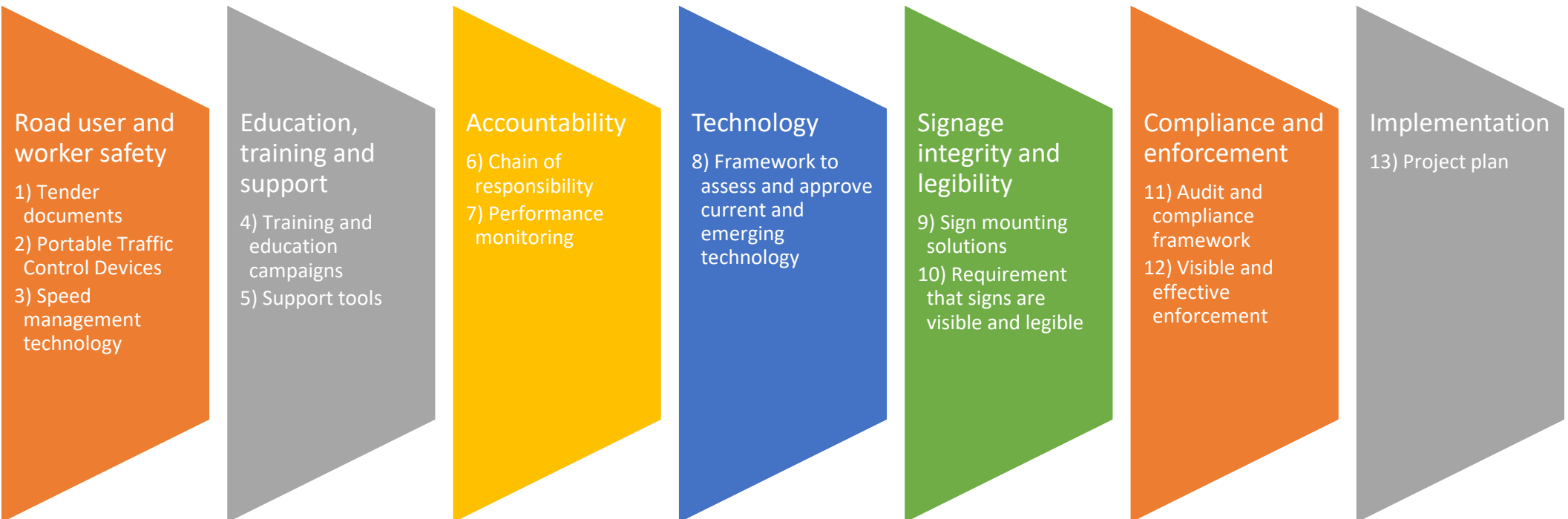
### Recommendations Report

August 2021



## SEVEN THEMES

**13 recommendations | 11 actions | 7 immediate actions**



## SEVEN THEMES

**13 recommendations | 11 actions | 7 immediate actions**

### Road user and worker safety

- 1) Tender documents
- 2) Portable Traffic Control Devices
- 3) Speed management technology

Recommendation 1: Revise tender documents and evaluation criteria to ensure temporary traffic management requirements are given increased focus and is priced fairly and transparently in bids.

Action a) The project manager to work with road managers to review policies and processes and identify a mechanism to structure the review including identifying assessment criteria to support Recommendation #1.

## SEVEN THEMES

**13 recommendations | 11 actions | 7 immediate actions**

### Road user and worker safety

- 1) Tender documents
- 2) Portable Traffic Control Devices
- 3) Speed management technology

### Education, training and support

- 4) Training and education campaigns
- 5) Support tools

Recommendation 5: Improve traffic controller and traffic management practices by identifying and developing support tools (e.g. training, safety campaigns and new / improved technical requirements) to ensure traffic management plans and on-site actions mitigate identified crash risks at regional roadwork sites.

Action e) Identify opportunities to improve traffic management training for local government authorities and utility providers and develop an implementation plan to execute the improvements to support Recommendation #5.

## SEVEN THEMES

**13 recommendations | 11 actions | 7 immediate actions**

### Road user and worker safety

- 1) Tender documents
- 2) Portable Traffic Control Devices
- 3) Speed management technology

### Education, training and support

- 4) Training and education campaigns
- 5) Support tools

### Accountability

- 6) Chain of responsibility
- 7) Performance monitoring

### Technology

- 8) Framework to assess and approve current and emerging technology

### Signage integrity and legibility

- 9) Sign mounting solutions
- 10) Requirement that signs are visible and legible

### Compliance and enforcement

- 11) Audit and compliance framework
- 12) Visible and effective enforcement

### Implementation

- 13) Project plan



## SEVEN THEMES

**13 recommendations | 11 actions | 7 immediate actions**

Road user and  
worker safety

- 1) Tender documents
- 2) Portable Traffic Control Devices
- 3) Speed management technology

Education,  
training and  
support

- 4) Training and education campaigns
- 5) Support tools

### Accountability

- 6) Chain of responsibility
- 7) Performance monitoring

Technology

- 8) Framework to assess and approve current and emerging technology

Signage integrity  
and legibility

- 9) Sign mounting solutions
- 10) Requirement that signs are visible and legible

Compliance and  
enforcement

- 11) Audit and compliance framework
- 12) Visible and effective enforcement

Implementation

- 13) Project plan

## SEVEN THEMES

**13 recommendations | 11 actions | 7 immediate actions**

### Accountability

- 6) Chain of responsibility
- 7) Performance monitoring

Recommendation 6: Establish clearer lines of traffic management accountability, and chain of responsibility on roadworks sites in Western Australia.

Recommendation 7: Establish a performance monitoring system that evaluates traffic management compliance with approved traffic management plans, and apply penalties for poor performance.



**Thank you**

**Questions?**

*We're working for  
Western Australia.*



# Road Planned Interventions

Clint Cooper

Road Planned Interventions Manager



# Overview

- Road Planned Interventions (RPI) – Background
- Event Traffic Management
- Traffic Management Company Registration Scheme
- Questions



## Why RPI

- Formed in 2013 to oversee Traffic management in and around EQ
- Quickly realised how bad TM was across the board including MRWA
  - design
  - implementation
  - start / finish times
- MRWA PM's – short term pain, long term gain
- Road Authorities had no teeth
- TMCRS allowed us to suspend or deregister



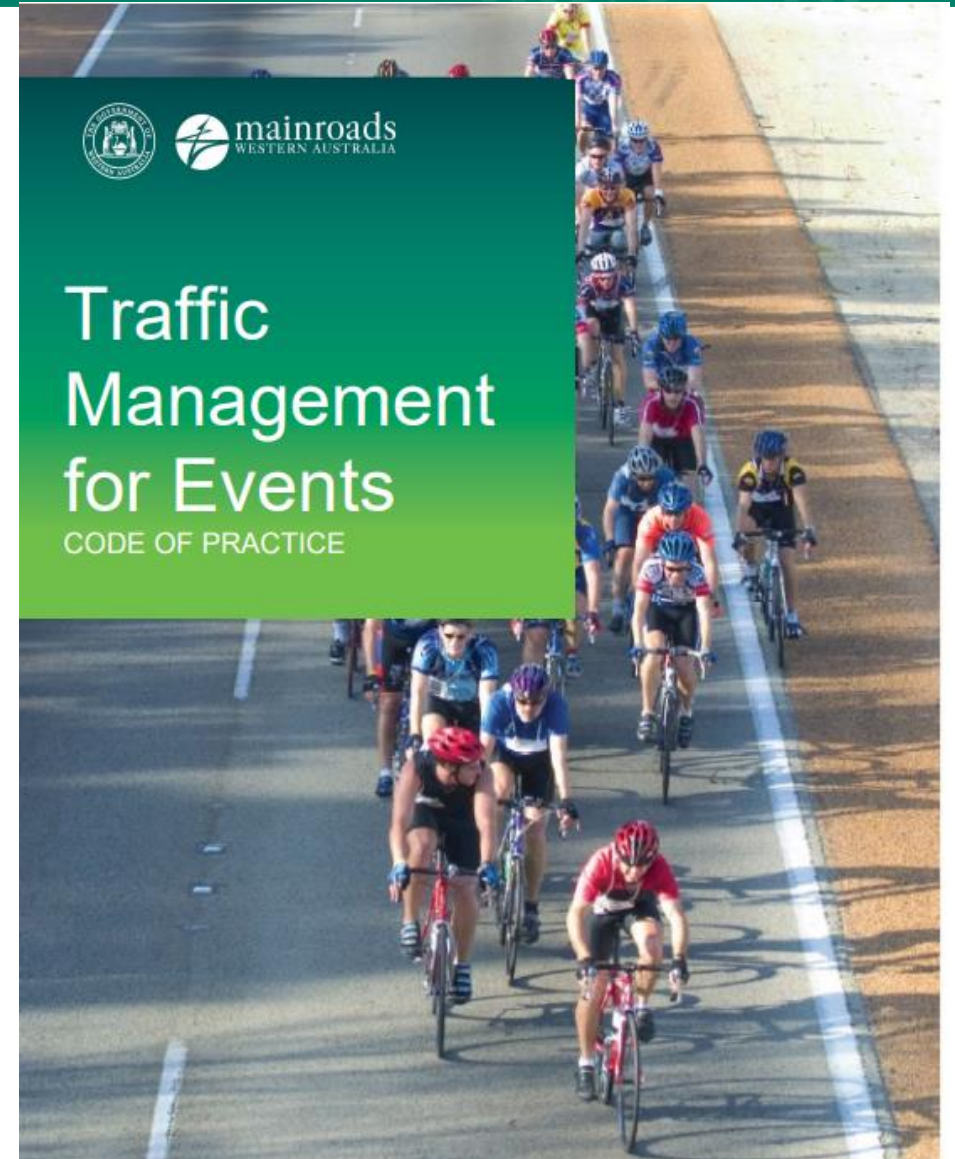
## Questions

# Event Traffic Management

Traffic Management for Events Code of Practice

Endorsed by T.M. for Events Advisory Group in 2006

- MRWA
- Police
- LGA's
- IPWEA
- Dept Sport and Rec
- Traffic Management Association
- WA Cycling
- Tourism WA



# Event Traffic Management

- Code of Practice soon to include
  - Hostile Vehicle Mitigation
  - On Road Cycling Events – Guidelines
- MRWA On Road events policy – coming
  - How we approve events
    - : Super Heroes Scooter Ride
    - : Running/Cycling/Bikers Charity Ride





## Event Traffic Management Responsibility

### Road Owners

- Promote safe and consistent traffic management
- Have a duty of care
- Compliance with AS 1742 Pt 3
- HVM?



## Events

In a normal year we approve

- 100 normal events
- 50 Stadium events





## Event Types

- Highway to Hell
- Bikers Charity Ride
- Run for a Reason
- Skyworks
- ANZAC Day
- Optus Stadium
- Music Festivals
- Running and Cycling events
- Pageants / Parades



## Approval Process

- 6 Categories in the Code of Practice
- Submission approval times - between 4 days and 6 months
- Approval in principle
- Traffic Management approval
- Hostile Vehicle Mitigation approval?
- Event debrief

## Questions





## Traffic Management Company Registration Scheme

### Aim

- Improve TM quality and consistency
- Increase safety for the public and road workers
- Raise industry standards
- Tangible consequences – deregistration or suspension

*Improvements to traffic management?*



## Numbers

- Full registration – 101 companies
- Conditional Registration – 39 companies
- LGA's – 31
- Private companies - 109



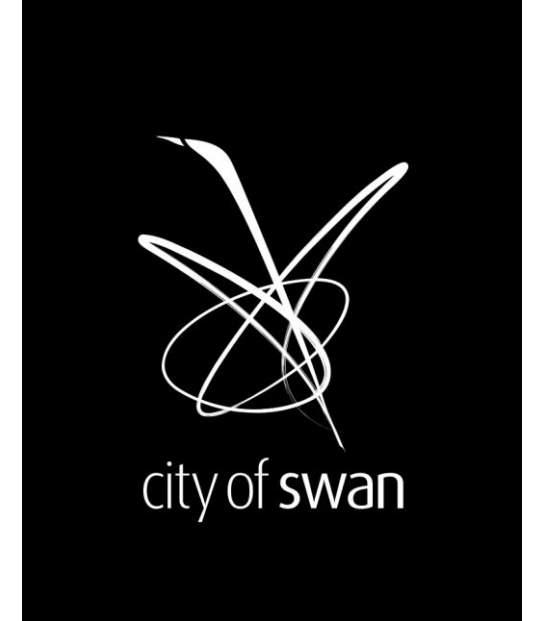
# Questions





# Thankyou

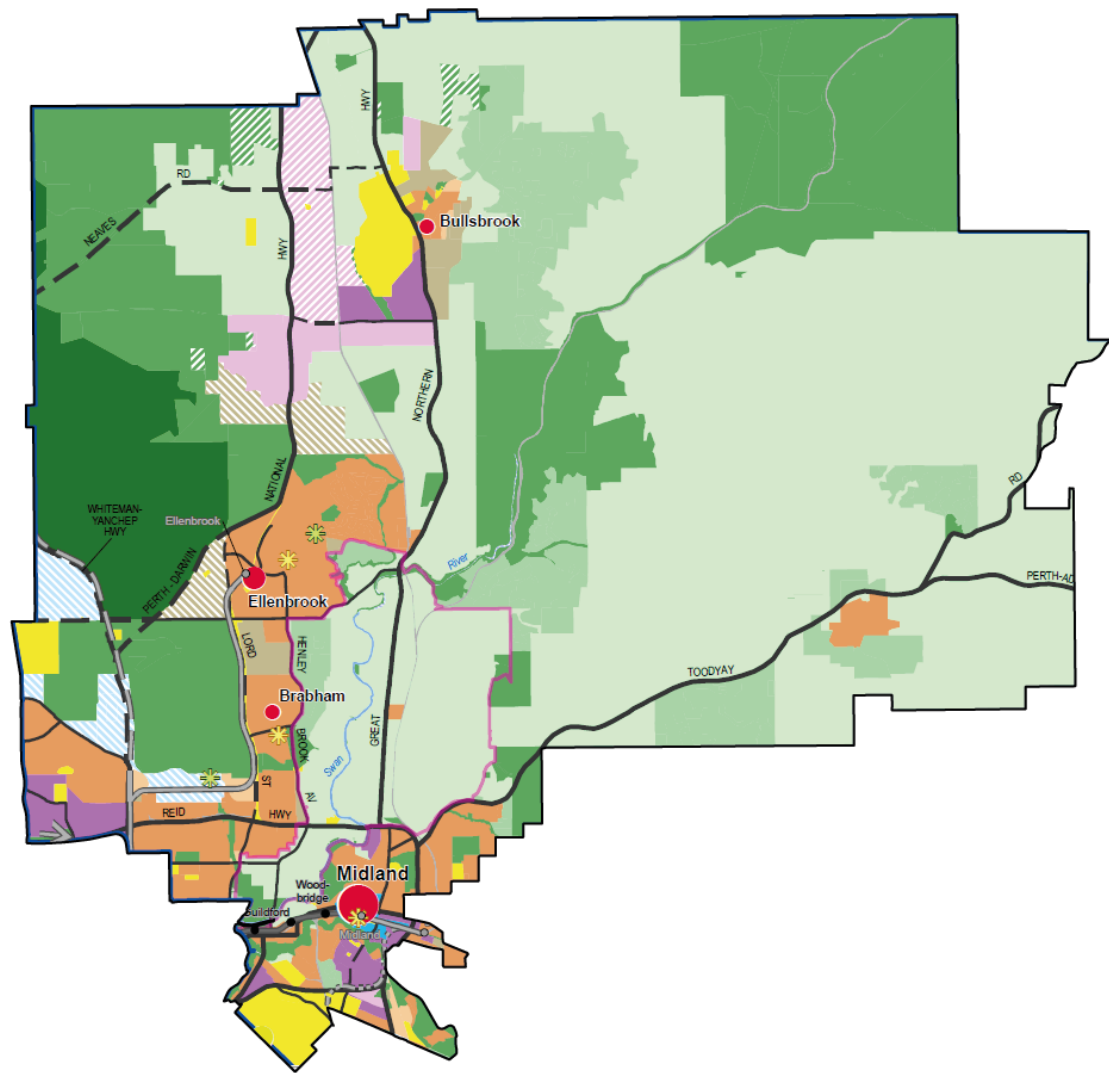




# City of Swan

Temporary Traffic Management Process





#### Legend

- Sub-region boundary
- Swan Valley Planning Act boundary

#### Framework land uses

- Railway
- Urban
- Urban deferred
- Urban expansion
- Urban investigation (Refer to Table 2 for key considerations)

- City centre
- Industrial
- Industrial expansion
- Industrial investigation (Refer to Table 6 for key considerations)
- Rural residential
- Rural
- State forest
- Open space
- Open space investigation

- Public purposes
  - Waterway
  - Planning investigation (Refer to Table 3 for key considerations)
  - Regional roads (MRS)
    - Existing
    - Proposed
  - Rail
    - Passenger rail/station - existing
    - Passenger rail/station - proposed Stage 1 METRONET
    - Passenger rail - further investigation
    - Freight rail - proposed
- NOTE: Transit corridors are shown on Plan 5

- Public purposes - proposed
  - Proposed open space - sport
  - Activity centres
    - Strategic metropolitan
    - Secondary
    - District
    - Other (Classification to be determined by more detailed planning)
    - Specialised
- NOTE: This is a conceptual representation of broad planning intentions within the sub-region. Further planning processes and decision-making under relevant legislation will need to be undertaken, including with reference to amendment of statutory instruments and detailed planning.

# Varied and diverse local government

As at June 30, 2020,  
the City of Swan had:

**308**  
parks and  
open spaces



**872ha**  
this includes,  
**34 active parks**  
(comprising golf  
courses, sporting  
complexes and  
sports grounds)

**162**  
bridges and  
overpasses



**49** road bridges  
**54** boardwalks  
and footbridges

**1,581km**  
of roads



**830km** pathways  
**840km** drainage pipes  
**1,256ha** managed  
natural resource areas

**264**  
building  
assets



**3** Leisure Centres  
**6** Libraries  
**17** heritage buildings

## Our assets



**6**  
Libraries



**3**  
Leisure  
Centres



**6**  
Youth  
Centres



**1,256**  
hectares of  
managed natural  
resource areas



**308**  
parks and open spaces  
including, **34** active parks  
(comprising golf courses, sporting  
complexes and sports grounds)



**1**  
award winning  
Swan Valley  
Visitor Centre

## Our economy,

**10,784**

local businesses



**69,899**  
local jobs



**\$9.47b**  
Gross Regional  
Product



**5.4m**  
annual visitors to  
the Swan Valley



Our top 3  
employers:



**12.7%**  
retail trade



**11.2%**  
manufacturing



**10.3%**  
construction



**\$430m**  
visitor  
expenditure

## Our homes

**60,139**<sup>2</sup>

forecast total  
dwellings in 2021



**2.75**<sup>3</sup>  
persons average  
household size

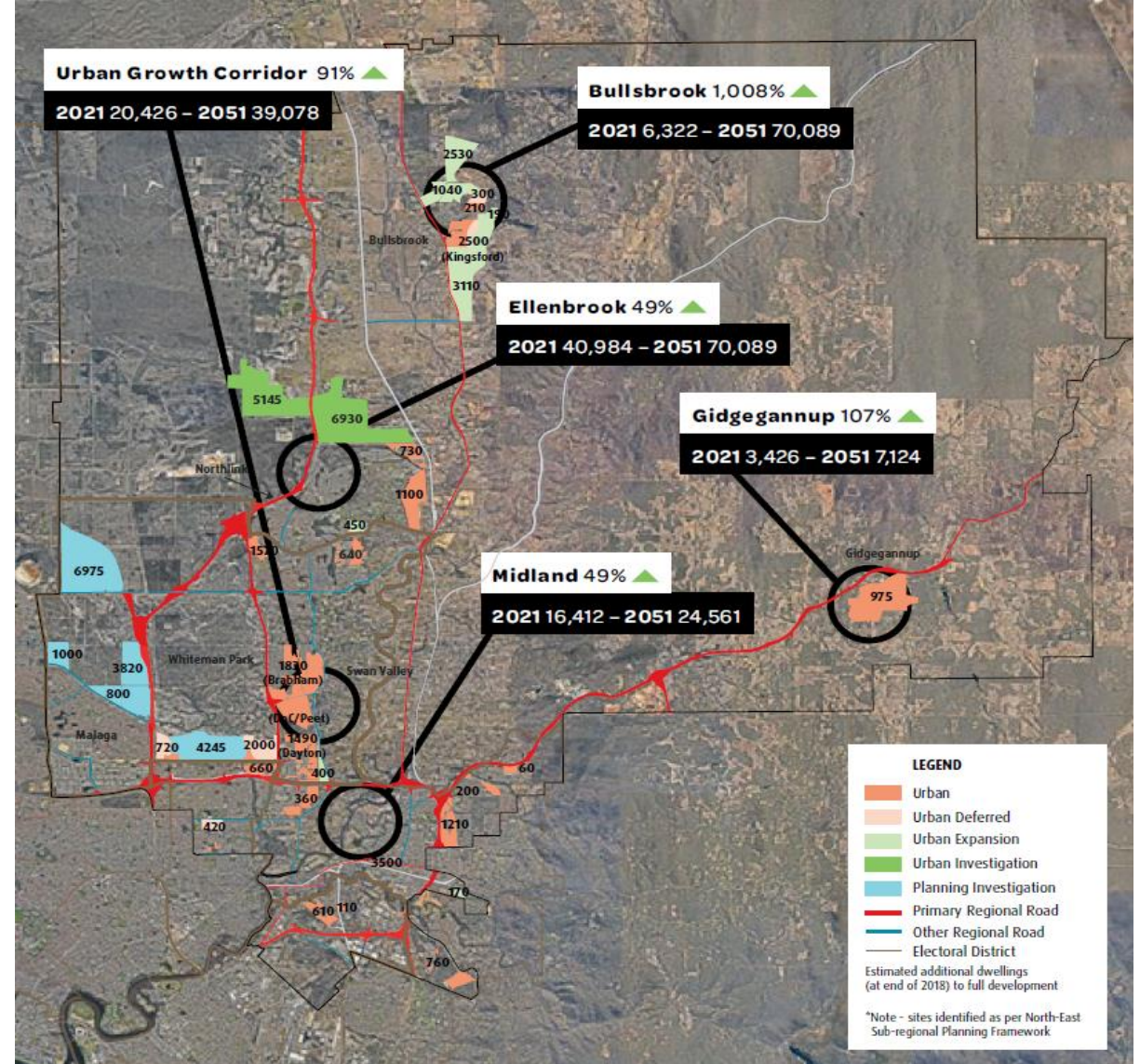


**Varied and Diverse LGA**



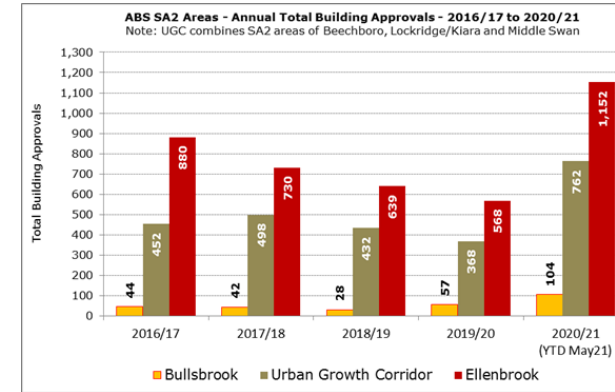
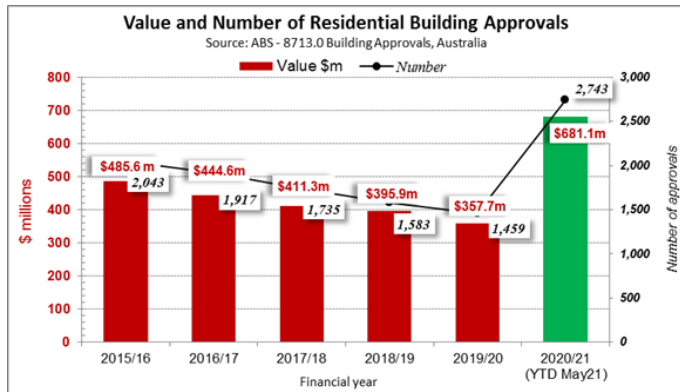
## Residential growth:

- **Bullsbrook**  
5,000 additional dwellings
- **Urban Growth Corridor** 5,500 additional dwellings
- **Ellenbrook**  
3,500 additional dwellings
- **Midland** redevelopment plus infill with 8,100 residents



## Residential growth areas





# Building approvals and MetroNet

# Temporary Traffic Management Review and Approval Process



### Applications and supporting documents may be

- emailed to the city via **swan@swan.wa.gov.au**;
- submitted online via **www.swan.wa.gov.au** (use keyword 'Traffic' to locate form);
- lodged in person at the City of Swan;
- mailed to the City.

In all cases it is an option for a City of Swan employee to contact you via phone to arrange payment if a fee applies.

### Schedule of Fees – all fees include GST

- Basic Traffic Management Plan - \$125
- Standard/Complex Traffic Management Plan (RTM Signoff required) - \$175
- Event Traffic Management Plan - \$300
- Not for profit organisation – exempt

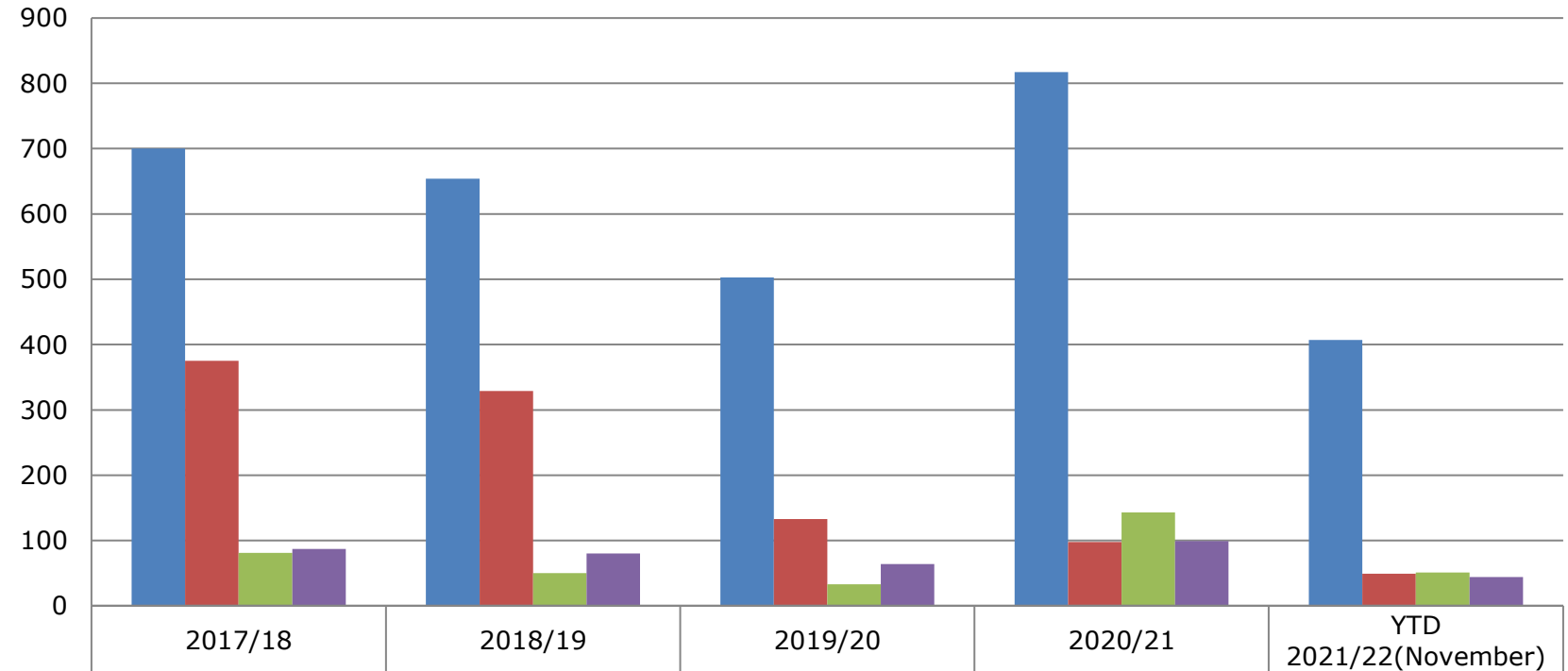
For more information contact the Traffic Management Officer on **9267 9287** or the Assets Works Coordinator on **9267 9267** or visit **swan.wa.gov.au**

- The City of Swan requires at least ten (10) days' notice for Basic TMP's and TMP's prior to works commencing.
- Works involving full road closures require at least fourteen (14) days' notice.

# Applications and Approvals

## Temporary Traffic Management

Axis Title



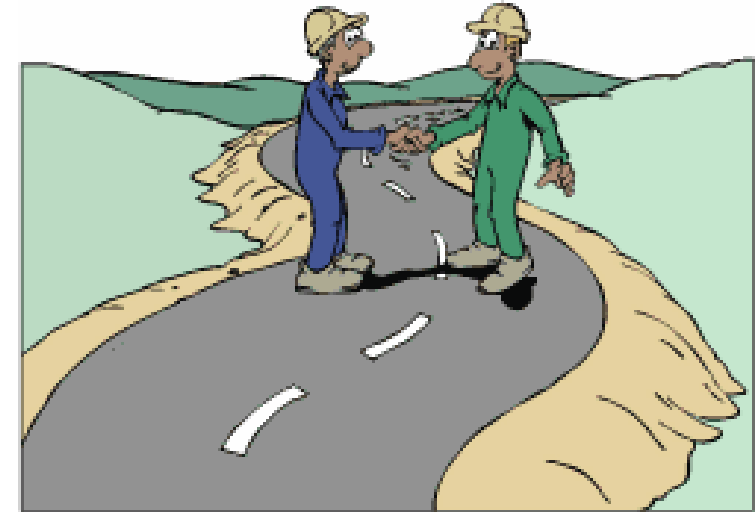
■ TMP's received & processed	700	654	503	817	407
■ TGS's received & processed	375	329	133	98	49
■ TMP's & TGS's rejected for Non Conformance	81	50	33	143	51
■ Site audit NCR's	87	80	64	99	44

## Applications and Approvals



# Some of our Key Customers

- Service providers
- Developers and their Contractors
- Pool installations
- City of Swan Project Management
- Major Infrastructure Projects
- Traffic Management Agencies



**Who are our Customers?**

# Plans

- Basic Plans
- Standard Plans
- Road Closures
- "Generic" Plans



## Types of Plans



Traffic Control Video 14-11-16 West Swan Road short.mkv



14-4-20 Morrison Rd Part 2.mkv



shutterstock.com • 598945700



2021-11-04-10h39m23s-Millhouse Road 21-11-16.MP4-.mkv



Jane Brook Drive 04-May 2018 @ 8.15am.mkv

# The Challenges we face

# Traffic Management Non Compliance Reporting

Search this site

Intelligence ▾ Business Unit Sites ▾ Committees and Groups ▾ Corporate Reports Workbench Corporate Systems Training ▾ Divisions ▾ Forms & Documents ▾ New Staff ▾ News Subscriptions ▾

Staff Intranet ▸ Divisions & Business Units ▸ Operations ▸ Asset Management Home Page ▸ Reports and Accounts Information ▸ Traffic Management Non Compliance Reporting

[+ new item](#) or [edit this list](#)

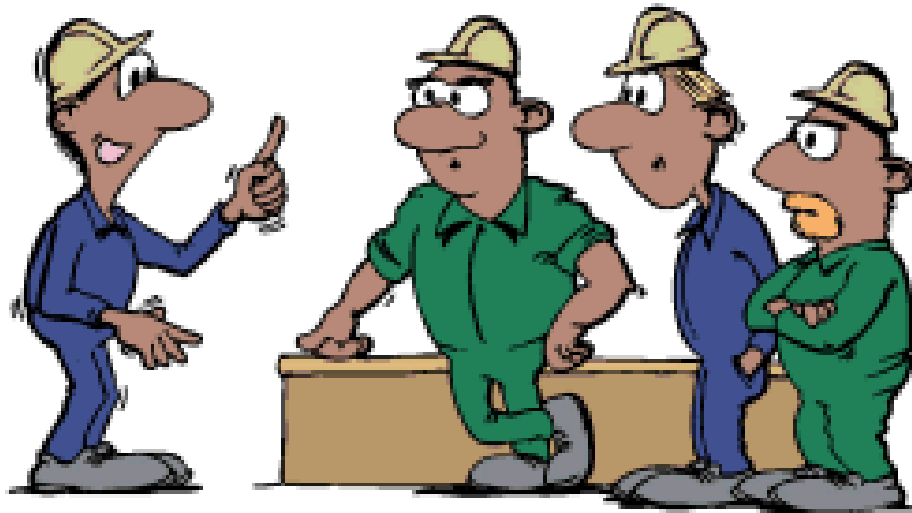
**Default** All Items \*\*\*

✓	Date Logged	Created By	Date of Incident	Location	Incident Details	Contractor/s	Contact details for those involved	Action required
	31/10/2021	<input type="checkbox"/> Jamie Hogan	29/10/2021	Partridge Street & Park Street RAB	Approaching RAB on Partridge Street and noted TC on STOP several metres away from the hold spot into a taper and talking on his mobile phone.	JAG for Crocker Constructions	Travis @ Crocker	Stopped and spoke to TC about why he is using hi mobile while he is doing TC work, also why he is away from his station point, his current location would be very confusing for motorists. Instructed TC to return to his post immediately and never use a mobile phone whilst he is performing TC duties.
	28/10/2021	<input type="checkbox"/> Jamie Hogan	28/10/2021	Dunnett Drive Ellenbrook	TC standing on the edge of the road doing stop/slow displaying STOP but not facing oncoming cars situated close to corner with Maralla Road, instead she watching machinery move around site. I approached the TC, within a few metres before beeping my horn which clearly startled her. She changed the bat to SLOW and i moved through.	Carringtons for Georgiou	Luan @ Georgiou	As I was moving past her I motioned to keep her eyes on oncoming traffic. I contacted Luan at Gergiou and requested he go and speak to the TC and the Crew Leader about what had just occurred. I also requested Luan inform them that TC's not watching oncoming traffic is totally unacceptable and extremely dangerous and this must not happen again.
	28/10/2021	<input type="checkbox"/> Jamie Hogan	28/10/2021	Park Street and Partridge STreet RAB	Traffic Controller facing Partridge Street northbound, sitting in the middle of the road on the central median island displaying stop. When i approached he got up and gestured which direction i was going.	JAG for Crocker Constructions	Travis	I stopped and spoke to TC and requested he show more dilligence than what I had just seen and never sit down on the job while carrying out TC duties, Also instructed him to get back to the LHS on the road out of danger and remain vigilant. Also reminded him of the already tarnished reputation of TC's and the poor image that he was displaying was not helping lift that reputation. Contacted site supervisor and informed him of the incident. Site supervisor confirmed he would attend site and speak to the TC and ensure it never happened again.
	27/10/2021	<input type="checkbox"/> Jamie Hogan	26/10/2021	Toodyay Rd at Reen Road	Advanced warning signs for road closure all blown over and ineffective.	Ertech for COS	Mitchell	Instructed contractor to reinstate signage as soon as possible and to put measures in place to ensure signs dont blow over so easily.
	27/10/2021	<input type="checkbox"/> Jamie Hogan	27/10/2021	Palfrey St & Mormaer St Brabham	Road closure signs and devices knocked over or blown over and ineffective.	Wormall Civil	Craig	Instructed contractor to reinstate immediately.
	27/10/2021	<input type="checkbox"/> Jamie Hogan	26/10/2021	Lillie Road Gidgeganup	Advanced warning signs and devices all blown over and ineffective.	Contraflow for COS	Irene	Reinstated signs and devices.
	27/10/2021	<input type="checkbox"/> Jamie Hogan	26/10/2021	Woolcott Av Brabham	Advanced warning signage blown over.	RJV	Luke	Instructed contractor to reinstate signs and put measures in place to ensure they dont easily blow over in strong winds.
	27/10/2021	<input type="checkbox"/> Jamie Hogan	25/10/2021	Kitcliffe Way Aveyley	Insufficient advanced warning signs in place prior to worksite, no RWA or Workman in place.	RJV	Stefan	Install signs as per approved TMP.

# Non Conformance Reporting







**So, what are we doing about it all?**