



# Well-managed Highway Infrastructure

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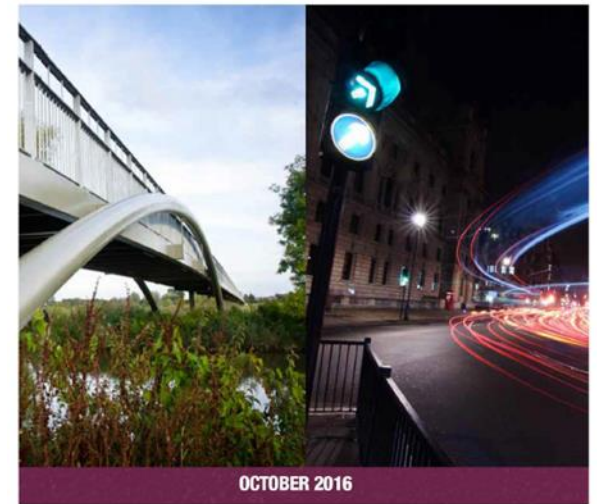
## □ Content

- Progress on Implementation
- Lessons from Winter
- Challenges and priorities for action



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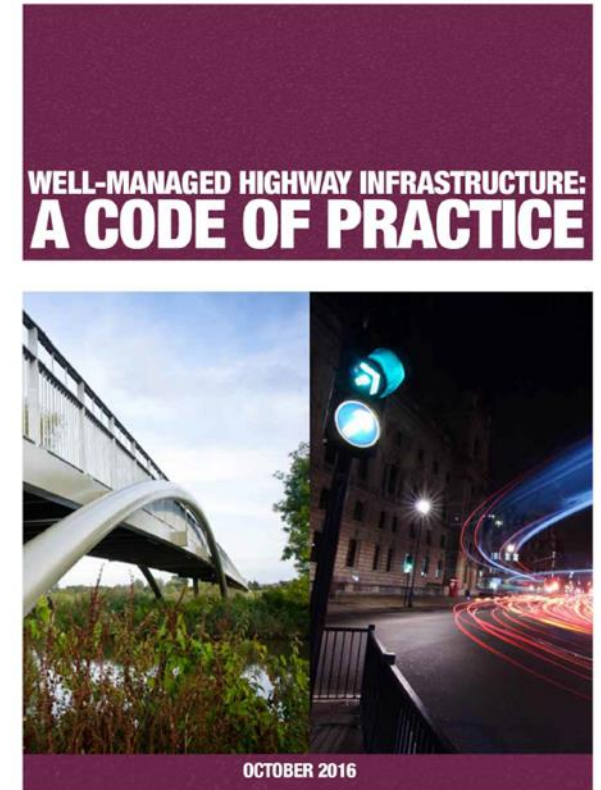
**WELL-MANAGED HIGHWAY INFRASTRUCTURE:  
A CODE OF PRACTICE**



# Well-managed Highway Infrastructure Code

- Move from prescribed to risk based
- 36 Recommendations
- October 2016 plus 2 years maximum to implementation

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# Key recommendations

WMI-managed Highway Infrastructure	A Code of Practice
<b>SUMMARY OF RECOMMENDATIONS</b>	
<b>RECOMMENDATION 1 – USE OF THE CODE</b> This Code, in conjunction with the UKRLG Highway Infrastructure Asset Management Guidance, should be used as the starting point against which to develop, review and formally approve highway infrastructure maintenance policy and to identify and formally approve the nature and extent of any variations.	Code of Practice
<b>RECOMMENDATION 2 – ASSET MANAGEMENT FRAMEWORK</b> An Asset Management Framework should be developed and endorsed by senior decision makers. All activities outlined in the Framework should be documented. (SIAMG Recommendation 1)	Code of Practice
<b>RECOMMENDATION 3 – ASSET MANAGEMENT POLICY AND STRATEGY</b> An asset management policy and a strategy should be developed and published. These should align with the corporate vision and demonstrate the contribution asset management makes towards achieving this vision. (SIAMG Recommendation 3)	Practice
<b>RECOMMENDATION 4 – ENGAGING AND COMMUNICATING WITH STAKEHOLDERS</b> Relevant information should be actively communicated through engagement with relevant stakeholders in setting requirements, making decisions and reporting performance. (Taken from SIAMG Recommendation 2)	Code of Practice
<b>RECOMMENDATION 5 – CONSISTENCY WITH OTHER AUTHORITIES</b> To ensure that users' reasonable expectations for consistency are taken into account, the approach of other local and strategic highway and transport authorities, especially those with integrated or adjoining networks, should be considered when developing highway infrastructure maintenance policies.	Code of Practice
<b>RECOMMENDATION 6 – AN INTEGRATED NETWORK</b> The highway network should be considered as an integrated set of assets when developing highway infrastructure maintenance policies.	Code of Practice
<b>RECOMMENDATION 7 – RISK BASED APPROACH</b> A risk based approach should be adopted for all aspects of highway infrastructure maintenance, including setting levels of service, inspections, responses, resilience, prioritisation and programmes.	Code of Practice
<b>RECOMMENDATION 8 – INFORMATION MANAGEMENT</b> Information to support a risk based approach to highway maintenance should be collected, managed and made available in ways that are sustainable, secure, meet any statutory obligations, and, where appropriate, facilitate transparency for network users.	Code of Practice
<b>UK ROADS LIAISON GROUP</b>	Code of Practice
<b>RECOMMENDATION 16 – INSPECTIONS</b> A risk-based inspection regime, including regular safety inspections, should be developed and implemented for all highway assets.	Code of Practice
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- Consistency with other authorities (5)
- Risk Management (7 and 14)
- Network Hierarchy, Inspections, Defect Repair (12,16 and 19)
- Competencies and Training (15)
- Cross Asset Priorities (30)

# Consistency with other authorities

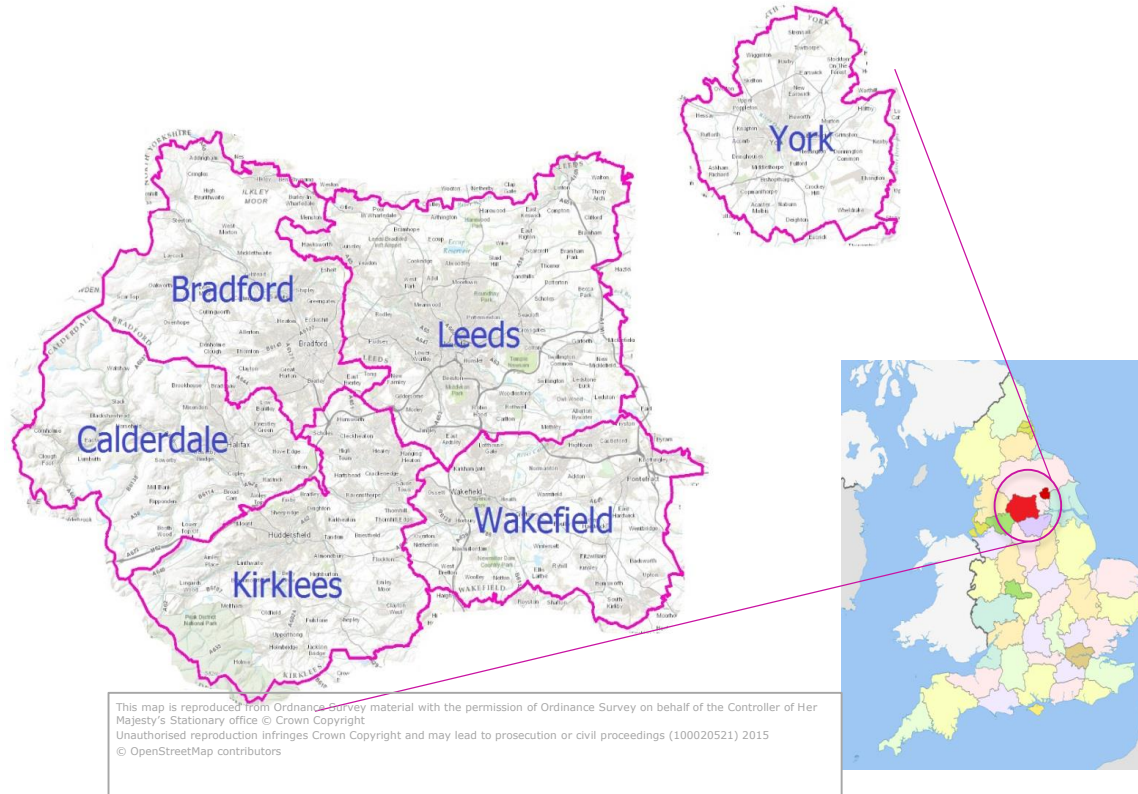
## Recommendation 5 Consistency with Other Authorities

*'To ensure that users' reasonable expectations for consistency are taken into account, the approach of other local and strategic highway and transport authorities, especially those with integrated or adjoining networks, should be considered when developing highway infrastructure maintenance policies.'*

- 6 authorities working together since 2014
- Previously asset management and self-assessment
- Evolved into revised code of practice
- Engaged Metis consultants to manage, check and challenge.

**METIS**

# Consistency with other authorities



10,500km roads  
1,800 bridges  
274,000 street lights  
Around 4% of England local highways assets



# Consistency with other authorities

- 36 Recommendations
- Gap analysis and action plan

T&F Group	Group Lead	Rec No	Recommendation	Priority	Gaps	Actions	Desired Position by Oct 2018	Aug-17	Sep-17	Oct-17	#####	Dec-17	Jan-18	Feb-18	#####	Apr-18	#####	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18		
A - Policies, Strategy and Competencies	Andrew Molyneux	5	Consistency with Other Authorities	High	There are some significant differences in policy between districts, particularly around safety inspections and reactive responses.	Review all relevant policies across WYCA and investigate the potential to harmonise these.	A clear understanding of the policies and practices of authorities neighbouring the WYCA districts. These policies and practices are aligned where appropriate, but where this is not the case, differences are known and the reasons why are understood and	Est. T&F groups	Est. prog & scope				Deliver actions					Get sign-off				Mobilise and implement actions		
		6	An Integrated Network	High	Many of the asset groups are dealt with in silos and there is a lack of integration between asset groups.	Develop an asset management policy which incorporates all assets and considers how all the asset integrate.	A common methodology for considering the highway as an integrated set of assets with interconnected maintenance programmes and investment strategies.	Est. T&F groups	Est. prog & scope				Deliver actions						Get sign-off				Mobilise and implement actions	
		7	Risk Based Approach	High	There is a lack of risk based approaches to the management of assets, especially with levels of service and inspection regimes.	Develop a risk based approach and risk management regime which covers: investment, levels of service, operations and	Have a common approach to risk covering; investment, levels of service, operation and inspections. This may be a common risk management policy statement.	Est. T&F groups	Est. prog & scope				Deliver actions						Get sign-off				Mobilise and implement actions	
		30	Cross Asset Prioritisation	High	Works and financial priorities are dealt with within asset groups and not across asset groups.	Within the asset management strategy consider the priorities and programmes of assets as a whole and distribute funding accordingly between assets	A common, documented methodology of distributing funding across all asset groups based on risk.	Est. T&F groups	Est. prog & scope				Deliver actions							Get sign-off				Mobilise and implement actions
		1	Use of the Code	Med	There are significant gaps in outlining and planning future asset management improvements.	Establish an implementation and improvement plan for highway infrastructure maintenance.																		To Be Agreed
		2	Asset Management Framework	Med	Many of the significant asset management documents are available for each authority, however there is limited documentation to showcase how	Develop a WYCA 'framework' of key asset management documents and how they interlink.																		To Be Agreed
		15	Competencies and Training	High	Asset management competencies of internal staff have been reviewed, however there needs to be a review of the awareness of external staff, and the training required to bridge the gaps in competencies.	Develop a training programme to bridge any gaps that are found in the competencies framework adopted by WYCA. Also, where appropriate engage contractors to raise awareness of the asset management approaches that the authorities are taking.	A minimum level of competencies for officers and contractors involved in delivering the highway service.	Est. T&F groups	Est. prog & scope				Deliver actions						Get sign-off				Mobilise and implement actions	
		35	Environmental Impact, Nature Conservation and Biodiversity	Med	The environmental impact, nature conservation and biodiversity of conducting maintenance is not considered across the majority of assets.	Conduct an environmental impact assessment of the maintenance activities that are currently being operated, and review the potential to utilise more environmental practices and																		To Be Agreed

# Consistency with other authorities

## ■ Task and Finish Groups





# Risk Management

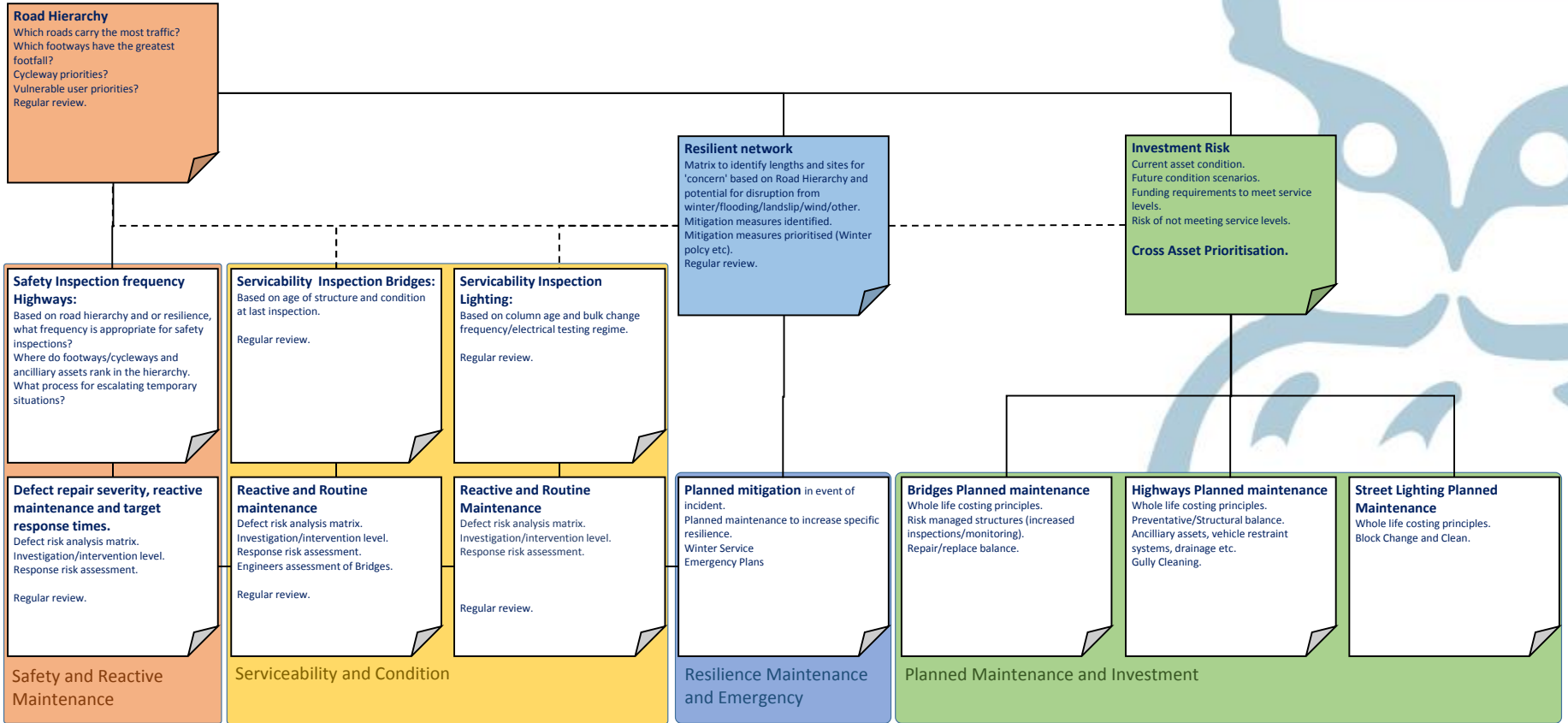
## **Recommendation 14 Risk Management**

*'The management of current and future risks associated with assets should be embedded within the approach to asset management. Strategic, tactical and operational risks should be included as should appropriate mitigation measures.'*

- Many work streams
- Working within Task and Finish Groups
- Understanding interaction of risk throughout the services

# Risk Management

## Well maintained Highway Infrastructure Potential Risk Matrix



# Network Hierarchy, Inspections, Defect Repair

## Recommendation 12 Network Hierarchy

*'A network hierarchy, or a series of related hierarchies, should be defined which include all elements of the highway network, including carriageways, footways, cycle routes, structures, lighting and rights of way. The hierarchy should take into account current and expected use, resilience, and local economic and social factors such as industry, schools, hospitals and similar, as well as the desirability of continuity and of a consistent approach for walking and cycling.'*

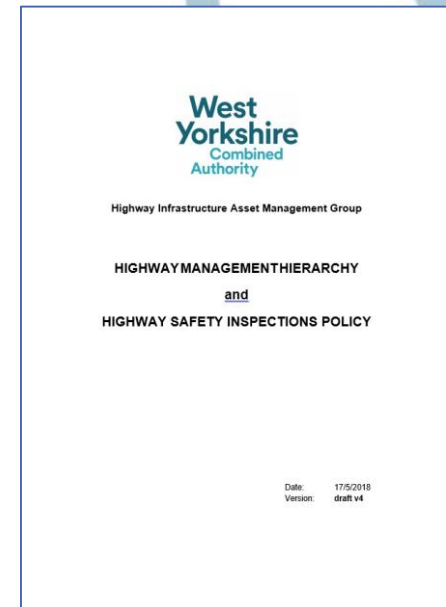
## Recommendation 16 Inspections

*'A risk-based inspection regime, including regular safety inspections, should be developed and implemented for all highway assets.'*

## Recommendation 19 Defect Repair

*'A risk-based defect repair regime should be developed and implemented for all highway assets.'*

- Consistent Hierarchy, Inspection and Defect Repair policy (with flexibility)
- Consultation with Insurers and Legal Services



# Competencies and Training

## Recommendation 15 Competencies and Training

*'The appropriate competency required for asset management should be identified, and training should be provided where necessary.'*

- Training developed with Metis
- Chief Officers - delivered
- Senior practitioners - delivered
- Elected Members, Inspectors and Maintenance Teams this Summer

### Agenda

- Metis
- Code of Practice
- Risk-Based Approach
- Key Recommendations
- Managing the Risk
- Case Law Examples
- Risk Management Scenarios



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**Risk-Based Approach**  
**Executive/Member Level Training**

Code of Practice: Well-Managed Highway Infrastructure

Well-Managed Highway Infrastructure - Risk Based Approach

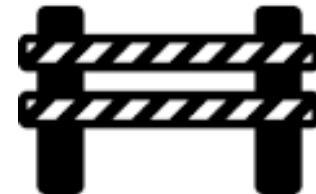


# Cross asset priorities

## Recommendation 30 Cross Asset Priorities

*'In developing priorities and programmes, consideration should be given to prioritising across asset groups as well as within them.'*

- Investment Risk
- Work in progress!
- Key to consider relative priorities if 'risk' is a proxy for affordability.



# How far have we progressed?

- Understand gaps
- Established a Plan
- Engaged neighbouring authorities and other stakeholders
- Prioritised actions based on risk
- Implement the Plan (by Oct `18)

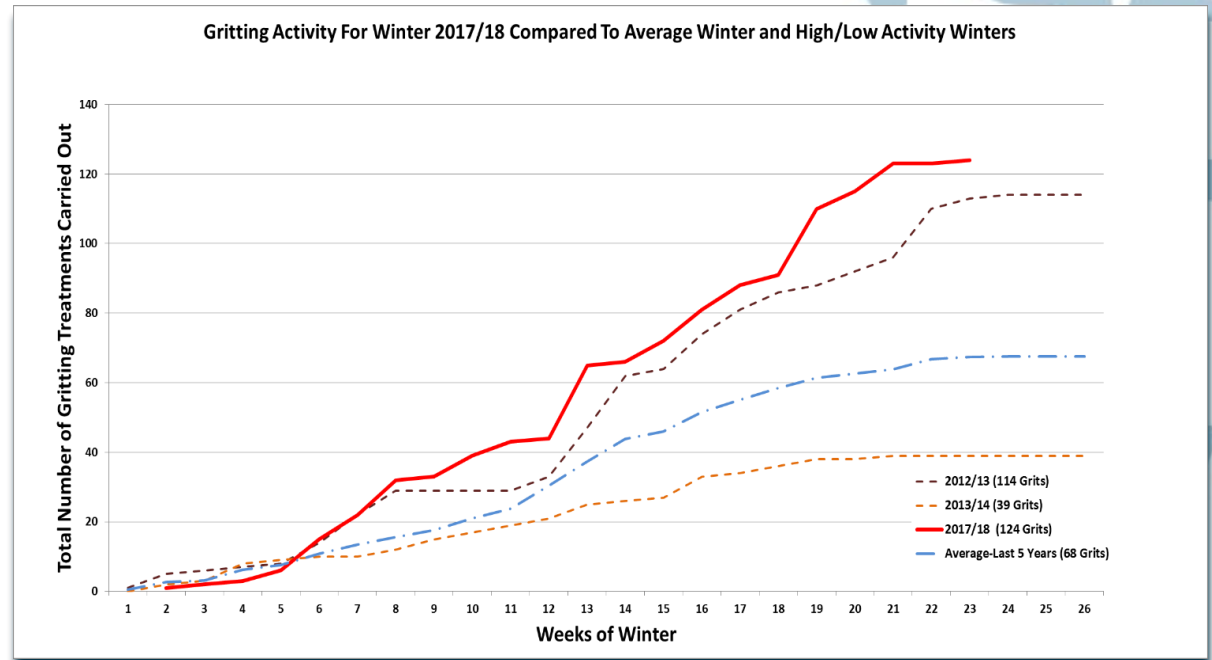


# Winter 2017/18



# Winter 2017/18 - Busy

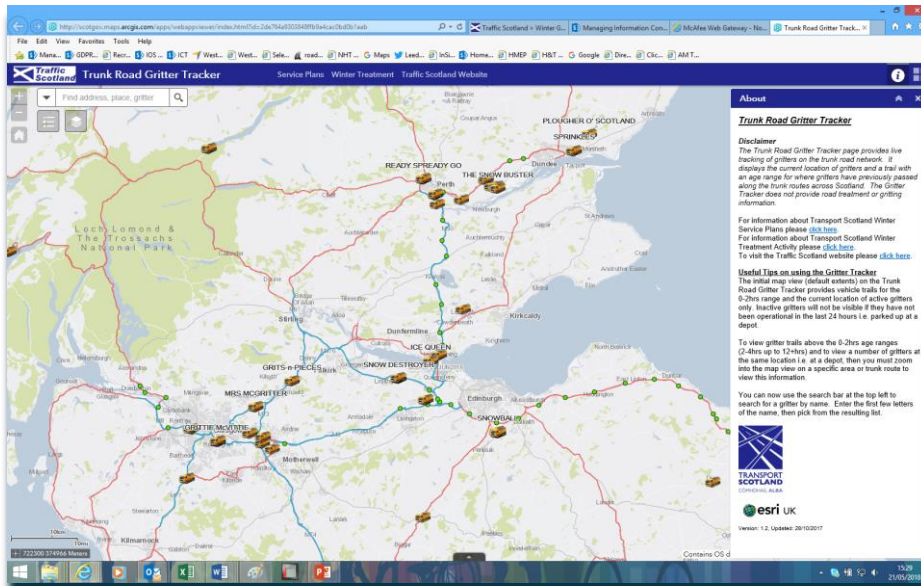
- Busiest winter service period ever recorded
- 124 Full Grits (average of 65 over the last 24 years)
- 28,400 tonnes of salt (previous worst 2009/10 = 23,200 tonnes)
- Relentless, very few quiet weeks



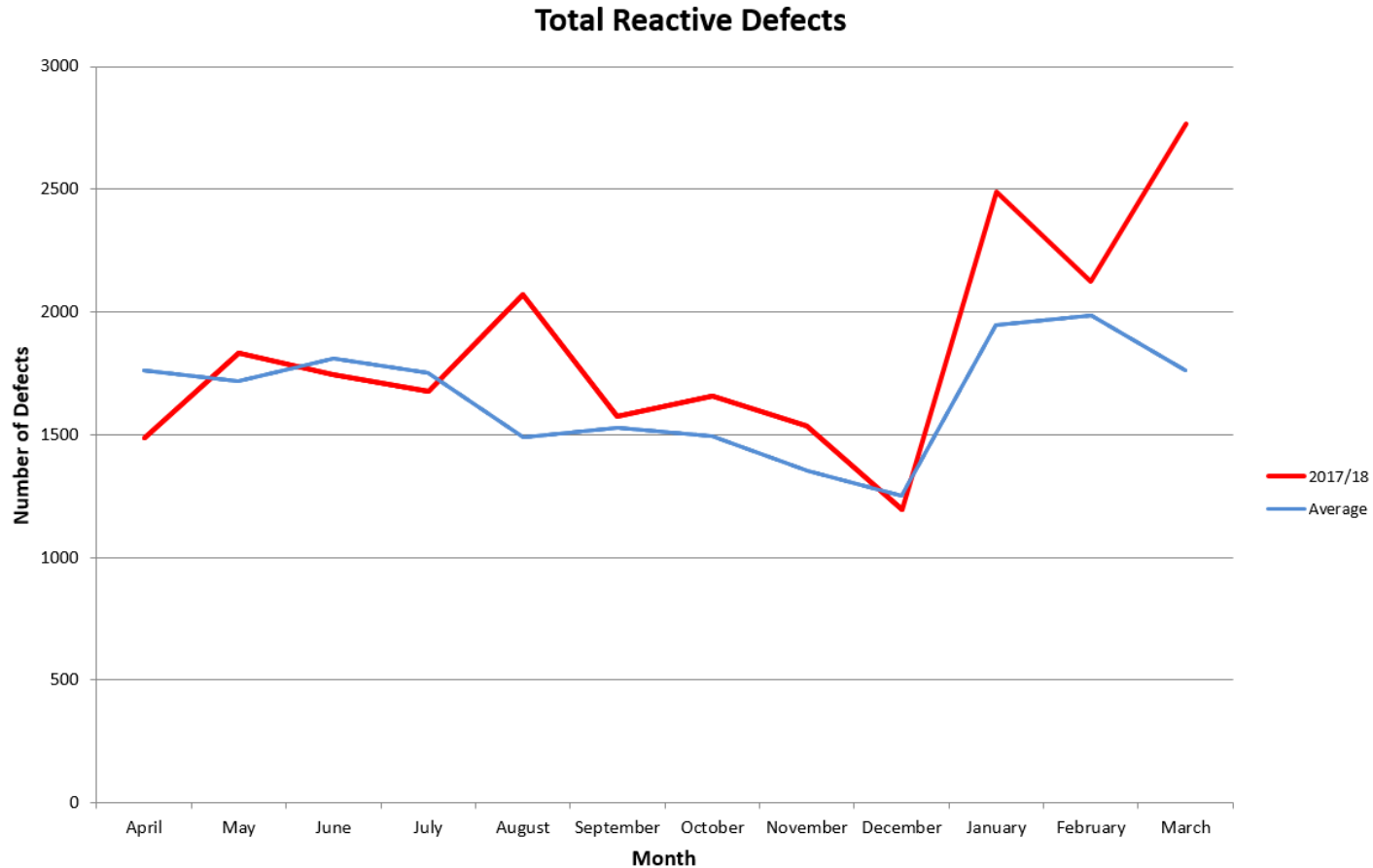


# Winter 2017/18 - Issues

- High profile service when it snows
- Rain turning to snow conditions – unreasonable expectations?
- Grit bins empty within days
- Social media on the rise
- No one has seen a gritter!



# Winter 2017/18 - Consequences



# Winter 2017/18 - Lessons

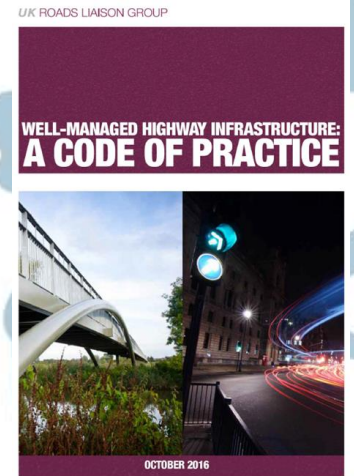
- Overall success for the Winter Service
- Salt stock resilience
- Grit bin review, manage expectations (250 tonnes of salt)
- Social media - needs resource
- Lack of resilience in road condition



# Summary - Challenges and Priorities

## □ WmHI Code:

- Revised Policy and Strategy signed off
- Cover the major risk of Inspection and Repair
- Prepare for Self-assessment 2019.



## □ Winter:

- Increase winter resilience (salt and resources)
- Manage expectations on the service
- Can the pothole fund make a difference?

# Any Questions?

Contact details

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