

# Well Managed Highway Infrastructure- good management or good maintenance?

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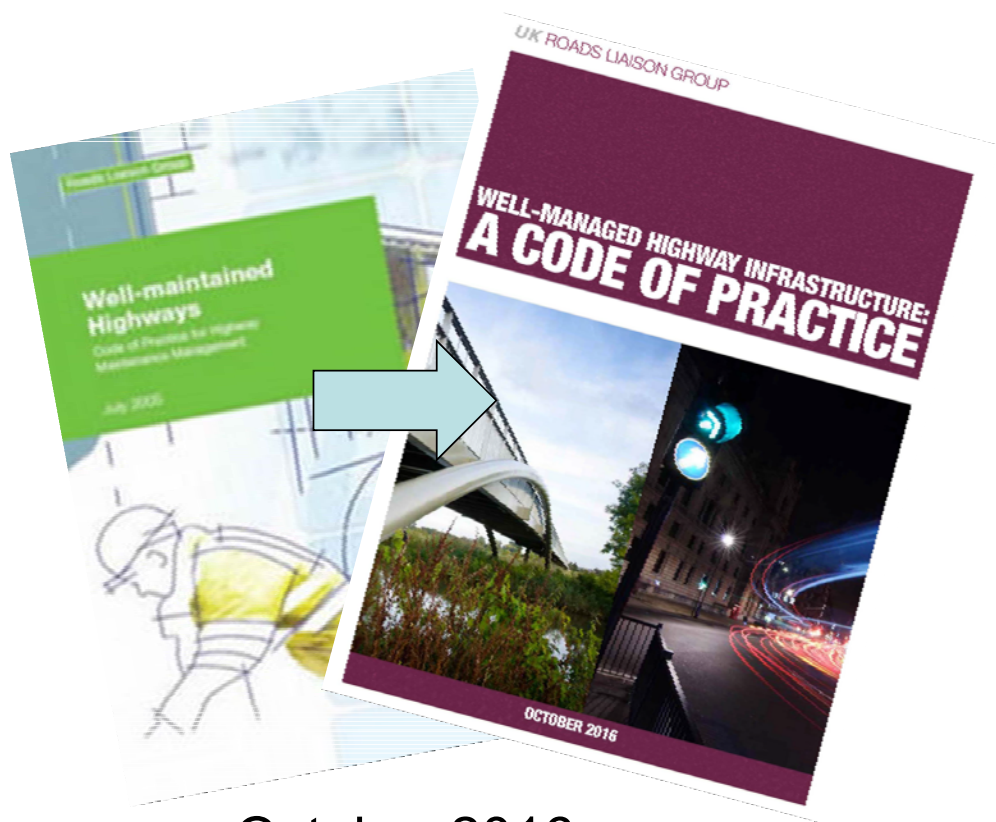
# Well managed highway infrastructure The new guidance



The Code is intended to apply throughout the United Kingdom. Production has been overseen by the UK Roads Liaison Group (UKRLG) and its Roads, Bridges and Lighting Boards. It is recognised that there are differences in approach to some matters in England, Scotland, Wales and Northern Ireland, which are not always detailed in the Code, but general principles are set out.

The Code is designed to promote the adoption of an integrated asset management approach to highway infrastructure based on the establishment of local levels of service through risk-based assessment.

# Launch of the Code



October 2016



May 2017

# Well managed highway infrastructure

## The new guidance



- Changing from reliance on specific guidance and recommendations in the previous Codes to a risk-based approach determined by each Highway Authority will involve appropriate analysis, development and gaining of approval through authorities' executive processes. Some authorities may be able to implement a full risk-based approach immediately. Others may require more time and may choose to continue with existing practices for an interim period, ***in which case the previous Codes will remain valid for them until the earlier of when they have implemented their approach or a period of two years from the date of publication of this Code. October 2016***

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- In the interest of route consistency for highway users, all authorities, including strategic, local, combined and those in alliances, are encouraged to collaborate in determining levels of service, especially across boundaries with neighbours responsible for strategic and local highway networks. Boundaries are not usually apparent to users and authorities should be aware of the possibility of distinct changes to levels of service through a risk-based local approach, both across authority boundaries and between roads with different character within an authority.

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- All Highway Authorities should consider adoption of new and emerging technologies as part of their highway service. This should include consideration of new ideas, methods of working and innovation in order to drive greater efficiency



# Key recommendations

- Asset management framework, policy and strategy
- Engagement and consultation
- Consistency across boundaries
- Risk based approach
- Evidence gathering
- Network hierarchy



## Key recommendations

- Whole life design and maintenance
- Risk management
- Competence
- Inspections, claims and repairs
- Resilience and effects of climate
- Civil emergencies
- Learning from evidence





# Highway Infrastructure Asset Management Guidance-HIAMG

The HIAMG sets out the approach to asset management. This Code refers extensively to the HIAMG and is intended to be useful additional guidance. Topics covered in the HIAMG are referred to, but not repeated in this Code. Nothing in this Code supersedes the HIAMG, unless specifically stated.

The HIAMG sets out the activities that support asset management:

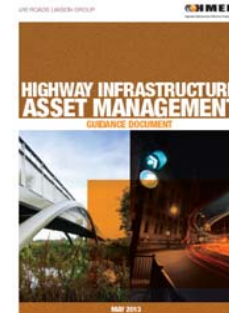
- the context of asset management;
- the asset management planning process; and
- enablers to support implementation of asset management.

# Risk based approach

WMHI - risk based principle

ISO 31000

- Communication and consultation
- Establishing context
- Risk assessment
- Risk treatment
- Monitor and review



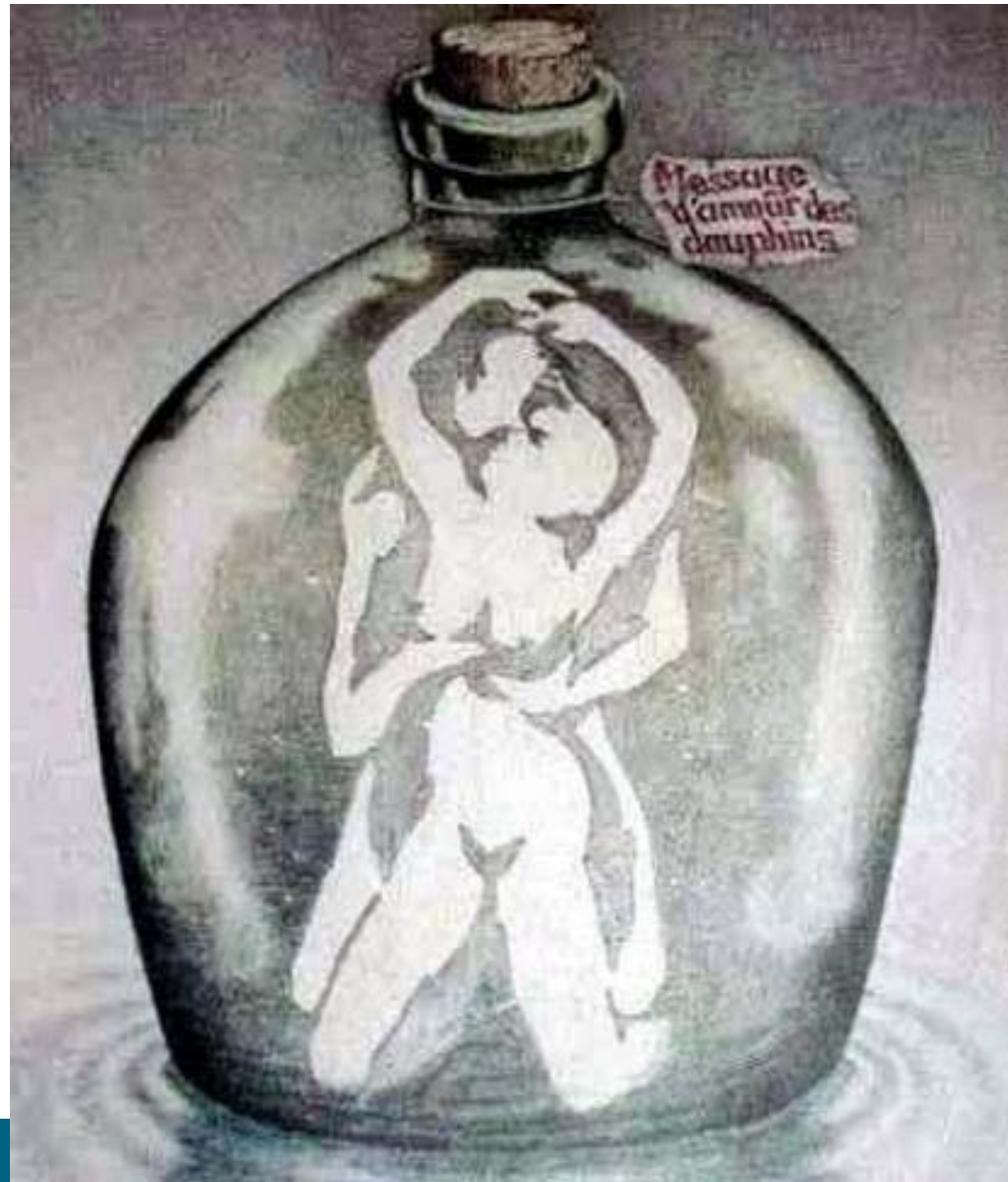
# Communication & Consultation

Highway infrastructure is highly visible and important to many groups both internal and external

- Consider local needs and priorities
- Other Council services are impacted

Communication and consultation inform the understanding and evidenced gathering that underpin the RBA

- Elected members
- Council executive
- Insurance
- Legal
- Contactors
- Road users
- Environment groups
- Suppliers
- Business groups
- Professional bodies
- Claimants
- Claimant solicitors
- Neighbouring Councils



# Context is key!

Describes the internal and external environment in which you operate and underpins your approach to risk

Some factors generic to all, such as –

- Highly visible and valuable asset
- Non-delegable statutory duty to maintain
- Publicly funded and resources are finite

Factors that will differentiate include –

- Characteristics of your network and your location
- Local policies, priorities, affordability
- Service delivery model – in-house / outsourced

# Risk Assessment

## Identify – Events that might happen ?

- Injury or damage to network users
- Damage to network infrastructure
- Inconvenience or delay to users
- Socio- economic threats (or opportunities)

## Analyse – Nature and scale of the events

- Impact
- Likelihood

## Evaluate - Am I bovered stage!

- Risk tolerance /appetite
- Cost benefit / opportunity

# Risk Matrix – Analysis & Evaluation

LIKELIHOOD OF EVENT OCCURRING	CONSEQUENCE OF EVENT OCCURRING				
	NEGLIGIBLE	LOW	MEDIUM	HIGH	SEVERE
NEGLIGIBLE	1	2	3	4	5
VERY LOW	2	4	6	8	10
LOW	3	6	9	12	15
MEDIUM	4	8	12	16	20
HIGH	5	10	15	20	25
KEY TO RISKS					
LOW		MEDIUM		HIGH	

HMEP, UKRLG, Highway Infrastructure Asset Management Guidance Document, 2013, p79



# Risk Treatment

## Management and control activities

- Action to reduce likelihood
  - Routine inspections
  - Response to reports
  - Repair programme
  - Improvement and upgrade schemes
- Action to reduce impact
  - Insurance fund and cover to manage financial impact
  - Risk transfer to contractors
  - Infrastructure designed to minimise damage from incidents

# Monitor & Review

WMHI emphasises the need for regular evidence-based reviews to underpin the RBA –

- Has the context changed?
- Are risk assessments sound?
- Are risk treatments effective?

Information and data will be key

- Defensibility / repudiation rates
- Liability decision analysis

# Risk or Evidence based approach to Highway Services

- Are you able to justify through sound evidence of network, likelihood, impact and affordability that the Highway Services Policy in your authority satisfies the requirements of the Highway Act 1980

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## What could possibly go wrong?

- Race to the minimum standards
- Local common denominator applies
- Revenue runs dry
- No insurance cover
- Catastrophic accident due to condition of network
- Bankrupting civil claim



## What could be realistic?

- Poorer level of service
- Deteriorating asset
- Increase reactive maintenance



## What should be realistic?

- Awareness of statutory duty
- managed asset
- less reactive maintenance
- Long term planning
- More focussed maintenance





## Next steps

- Developing a consistent asset management plan, accurate inventory and condition data
- Engage competent and trained staff
- Collaborate for better standards of service
- Don't be the first in court



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## Contact details

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