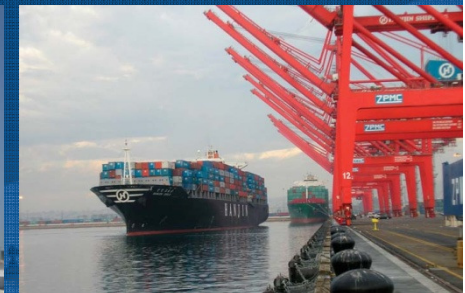
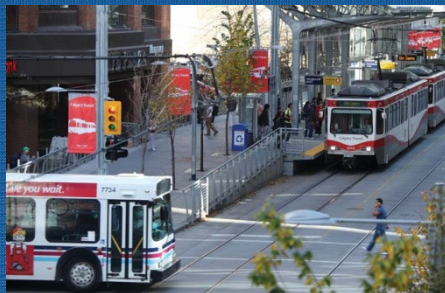


CH2MHILL®



Guidance for undertaking skid resistance site investigations in London



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Outline of presentation

- Background
- Key principles of the London Skid Policy
- The London Training Guide and its purpose
- Site prioritisation methods
- Guidance tools for investigations
- Key Messages

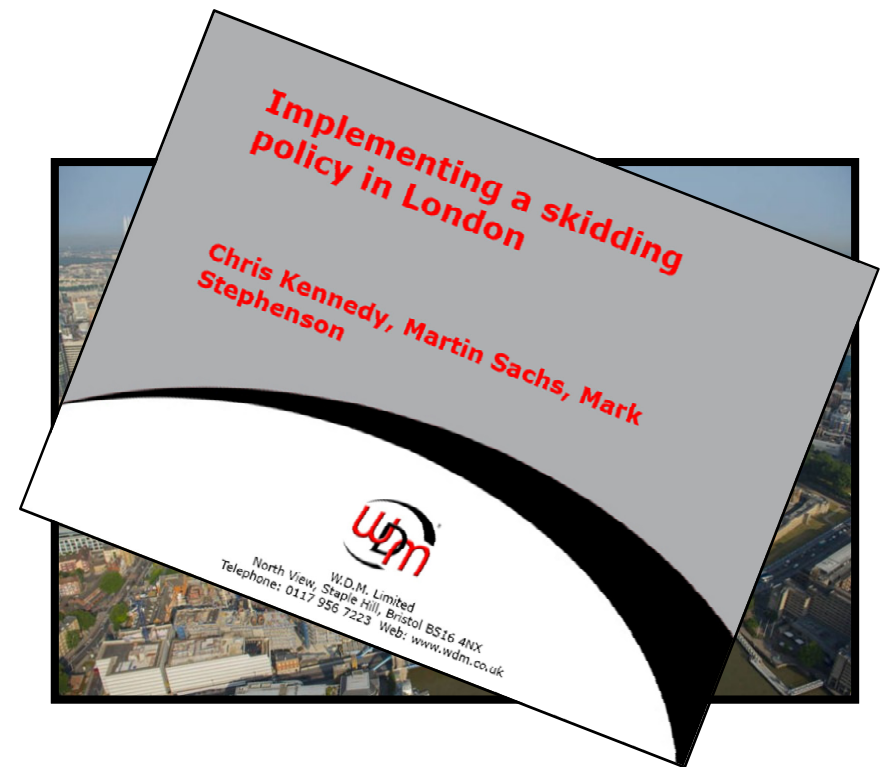
London Principal Road Network

- **33** Separate local government districts
- **1,571km** of borough principal roads
- **585km** of additional TfL network (main through routes / Red Routes)
- **2,156km** in total addressed by the skid resistance policy



London Skid Policy

- 33 boroughs operate under varying political, financial, technical environments
- Therefore, any London-wide policy/guidance could not be prescriptive
- Policy needed to be sufficiently detailed to allow boroughs to apply own principles
- In 2009: London Skid Resistance Policy and Guidance Document developed by W.D.M. Limited
- 2011 conference - “Implementing a skidding policy in London” reported



Principles of Policy

- Skid resistance surveyed annually using SCRIM[®]
- Principle roads sectioned into Site Categories (risk based)
- Investigatory Levels (evidence based, using Accident Rate vs SCRIM studies)
- Need to balance
 - Risk (extent of deficiency)
 - against
 - Cost (affordability)



Policy Implementation

- Planning and undertaking investigations are key elements in policy implementation
- Typically, boroughs have:
 - Lack of resources
 - Lack of skillsto undertake investigations
- Need to prioritise investigations
- Need to prioritise treatments



Purpose of Training Guide

- To develop competency to undertake investigations, including prioritisation and record keeping
- To improve the level of expertise in boroughs, including knowledge of skid resistance
- To provide guidance on how to interpret accident records to check if linked to skid resistance



Two Methods Developed for Site Prioritising

■ Priority Category

- Priority 1 to 5
- Level of SCRIM Deficiency
- 3-year wet accidents

➤ Both methods have own merits

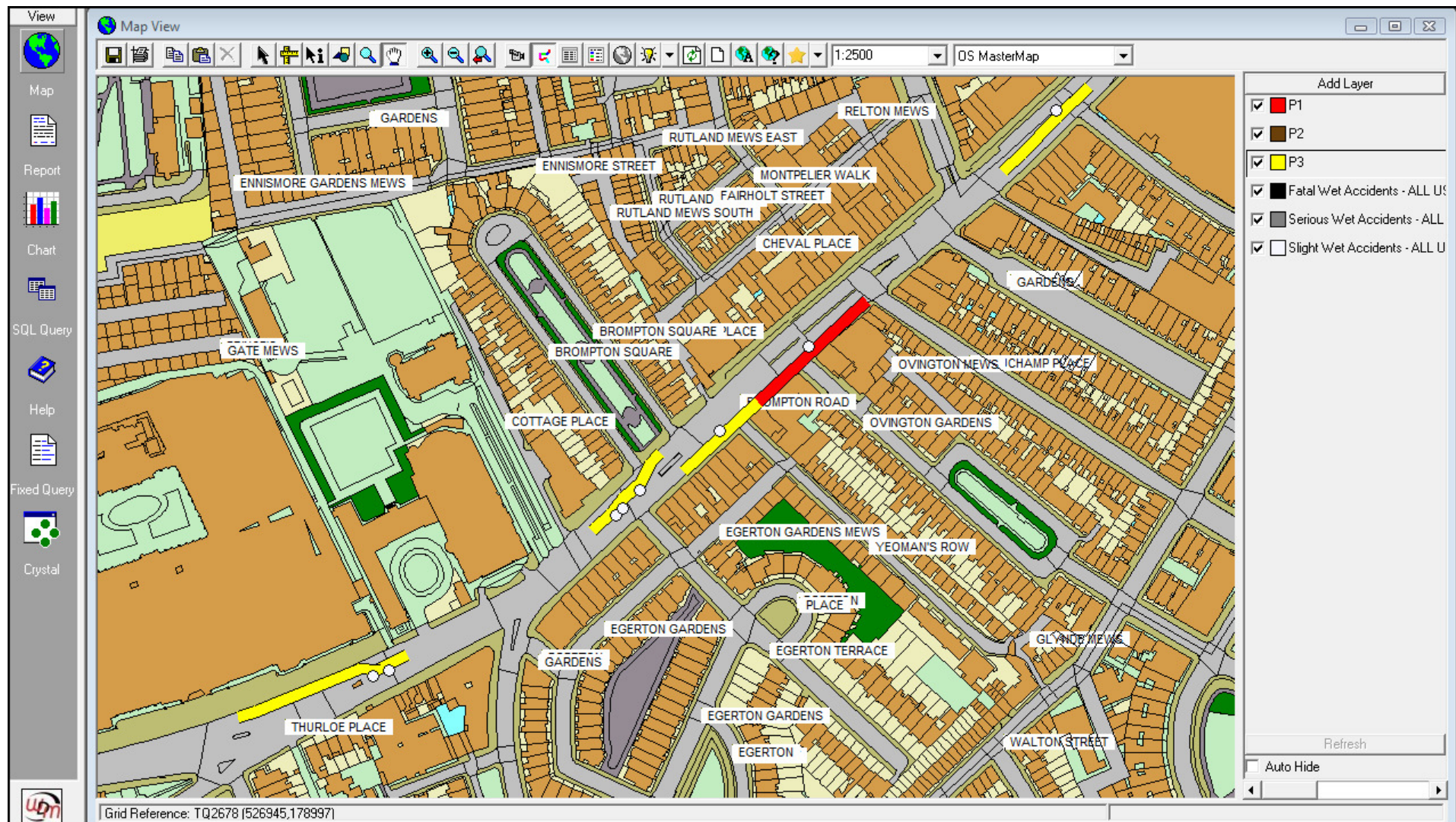
■ Priority Score

- Weighted score between 0 and 100
- Level of SCRIM Deficiency
- 3-year wet accidents
- 3-year dry accidents
- Accident severity
- Traffic flow

➤ Choice up to authority

➤ Need to reflect authority's AM Plan and Strategy

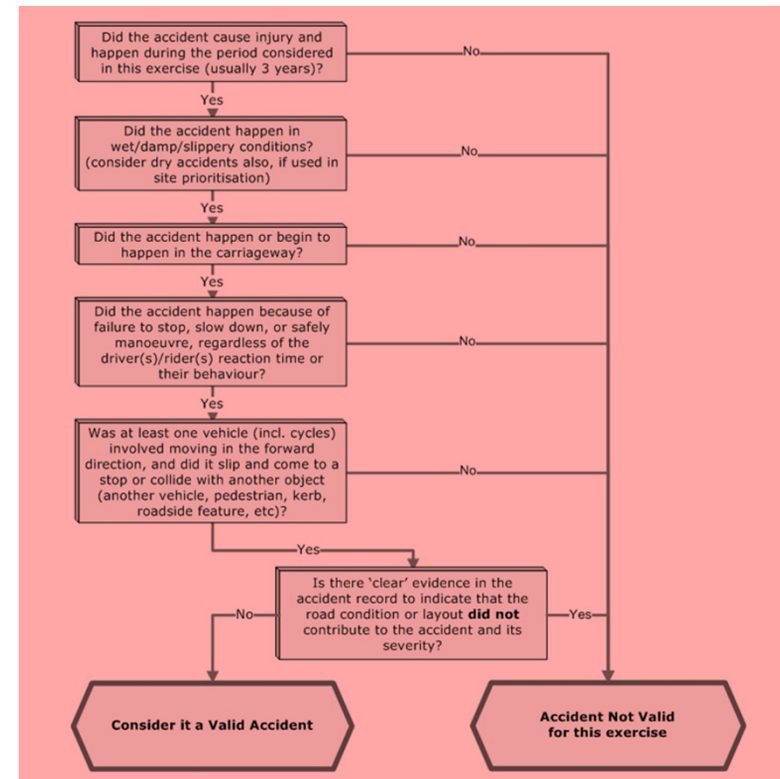
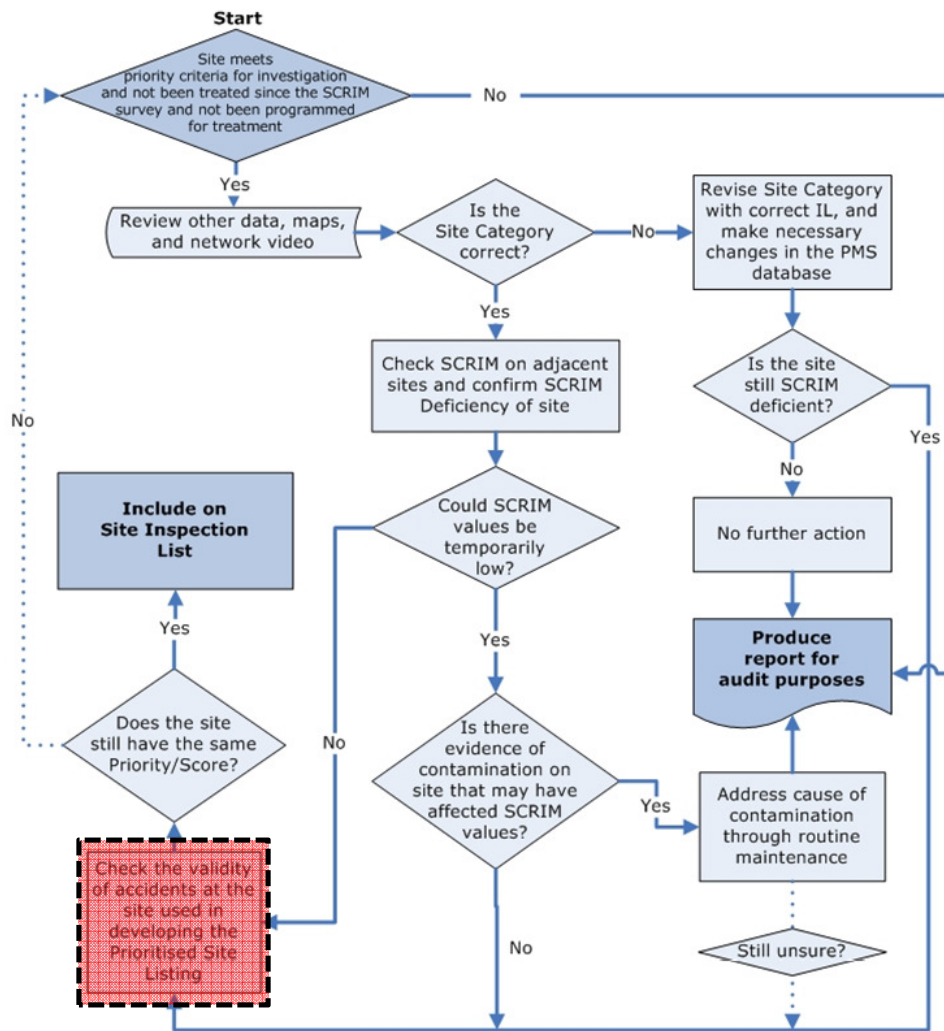
Example Prioritised Site Map



Preliminary Investigation (Desktop)

- It's a desktop assessment
- Sites assessed individually
- Takes each site through a number of checks
- Each site - decision to be clearly documented
- Accidents at high priority sites checked for link to skid resistance
- Outcome – validated list of sites for a Secondary Field Investigation

Preliminary Investigation – Flow Chart Guides



Outcome
Validated list of sites for a Secondary Field Investigation

Secondary Investigation (Field)

- Guidance on planning the Secondary Investigation
- Field forms
- Information to take TO site
- Information to collect FROM site
- Making a recommendation
- Site Category change form

The image shows two overlapping forms from the SCRIM (Strategic Road Condition Monitoring) system. The top form is the 'SCRIM Investigatory Form - Field Inspection' and the bottom form is the 'SCRIM Site Category Change Form'. Both forms are designed for field use and contain various sections for data entry.

SCRIM Investigatory Form - Field Inspection includes sections for:

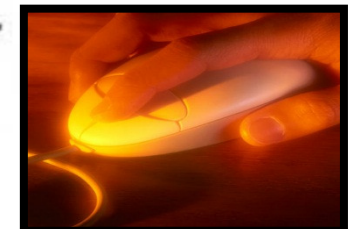
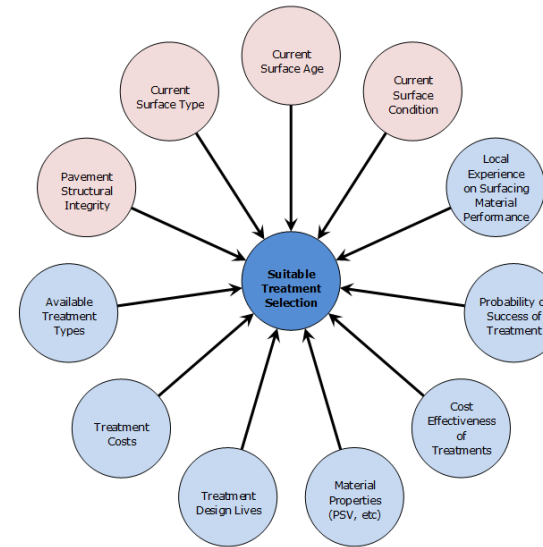
- Location Details:** Name of Road, Road Code, Section Code, Start Metre, End Metre.
- SCRIM Site Category Details:** Site Category Name/Code.
- Site Details:** CSC, SCRIM Def, Wet Accidents, Total Accidents, Priority for Initial Inv.
- Site Location:** Questions about visibility, speed limit, and site category appropriateness.
- Road Layout:** Questions about geometry, sharp bends, and insufficient space.
- Pavement and Surface Condition:** Questions about SCRIM date, macrotexture, and pavement condition.
- Visual Assessment of Pavement and Surface:** Questions about low texture, contaminants, and rutting.

SCRIM Site Category Change Form includes sections for:

- Location Details:** Name of Road, Road Code, Section Code, Start Metre, End Metre.
- SCRIM Site Category Details:** Site Category Name/Code.
- Site Category Change:** Questions about the reason for change and the effectiveness of the change.
- Additional Information/Observations:** A section for free-text notes.
- Revised Site category:** A section for updating the site category details.

Post Secondary Investigation

- Treatment selection
- Budget considerations
- Treatment prioritisation
- Temporary warning signs
- Updating the databases



Key Messages

- A Site with high priority in the Prioritised Site Listing
 - does not mean it needs a treatment, a prompt to investigate
 - means a desktop investigation is necessary
 - may or may not require a secondary field investigation
- During investigations – important to validate accidents and reassess sites to ensure skidding issue really exists
- Very important to record network layout changes and to keep the digital network up-to-date
- Very difficult to investigate everything, important to lock-in to the policy
- One objective of a 'London-wide' policy is to ensure consistency
- The training guide and hands-on training provided to boroughs have helped achieve this objective

Acknowledgements

Work undertaken while I was employed at
W.D.M. Limited



Assistance from individual London boroughs

LoTAG (London Technical Advisors Group)



LoTAMB (LoTAG's Asset Management Board)



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Thank you

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