



# SAM – System Based Analysis and Management of Urban Flood Risk

## A WATER COMPANY PERSPECTIVE

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# AMP4 Progress

- Focus on reducing 2:10 and 1:10 internal register
- Addressing mainly company-specific issues
- Relatively 'simple' projects
- Focus on underground assets
- Typically 1:30 year design standard
- Limited consideration of exceedance events

# Available tools

- Stochastic rainfall
- Fixed location - not spatially varied
  - OK for relatively small catchments
- Underground pipe models
- Suitability of models
- Limited overland flow modelling
- Generally sufficient for water company needs

# Water Companies, Ofwat and AMP5

- Five year Business Plans submitted in April
- Covers 2010-2015
- Continued work internal DG5's
- More focus on external flooding?
  - Better understanding of complex problems
  - Better solutions
- Cost-benefit analysis for all schemes
  - But need to treat customers equitably

# 2007 Floods and Pitt

- Change of perspective
- Focus on severe flooding
- Multi-agency
- Overland 'complex' problems
- Integrated Urban Drainage



# The Floods and Water Bill and the wider world

- Key points broadly welcomed by WaSC's
- LA lead on surface water management
- Clarity over SuDS ownership
- S106 amendments
- EA Strategic Overview
  - Need for national picture of high risk areas
  - SWMP's prioritised on damage cost

# SWMP's and Water Companies

- Requirement to work with other agencies
- Sharing data
- Need for more comprehensive modelling
- Larger catchments - overland flow
- Real opportunities to understand and resolve problems

# Summary

- Purpose of sewerage system
  - Foul water
  - Surface water – roofs and yards appurtenant
- Design standards
  - 1:30 to 1:50 flood standard
  - Property flooding 1:75 year (ABI)
  - Resilience
  - Catastrophic flooding?
- EAD vs cost-benefit
  - EAD for national overview?
  - CBA for sewerage assets
- Spatially varied rainfall
  - How to use it?
- Who's water is it?
  - Not important for customers
  - Very important for surface water management



# Finally

- Demonstration of difficulty of project
- Valuable for national risk assessment
- More data required for spatial rainfall analysis
- Impact of F&W Bill

