

# GREATER LONDON AUTHORITY



## Drain London:

A Summary of Challenges and Solutions for  
Delivering 33 Surface Water Management Plans

*WaPUG / CIWEM: Wastewater and Urban Drainage Conference*

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Presenters:

Michael Arthur – Capita Symonds

Matthew Graham – URS / Scott Wilson

**CAPITA SYMONDS**

Scott  
Wilson

Flood Risk Management

# Overview

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- Drain London Project
  - Background
  - Drain London Forum
  - Objective
  - Delivery Structure
- Alignment with Defra SWMP Guidance

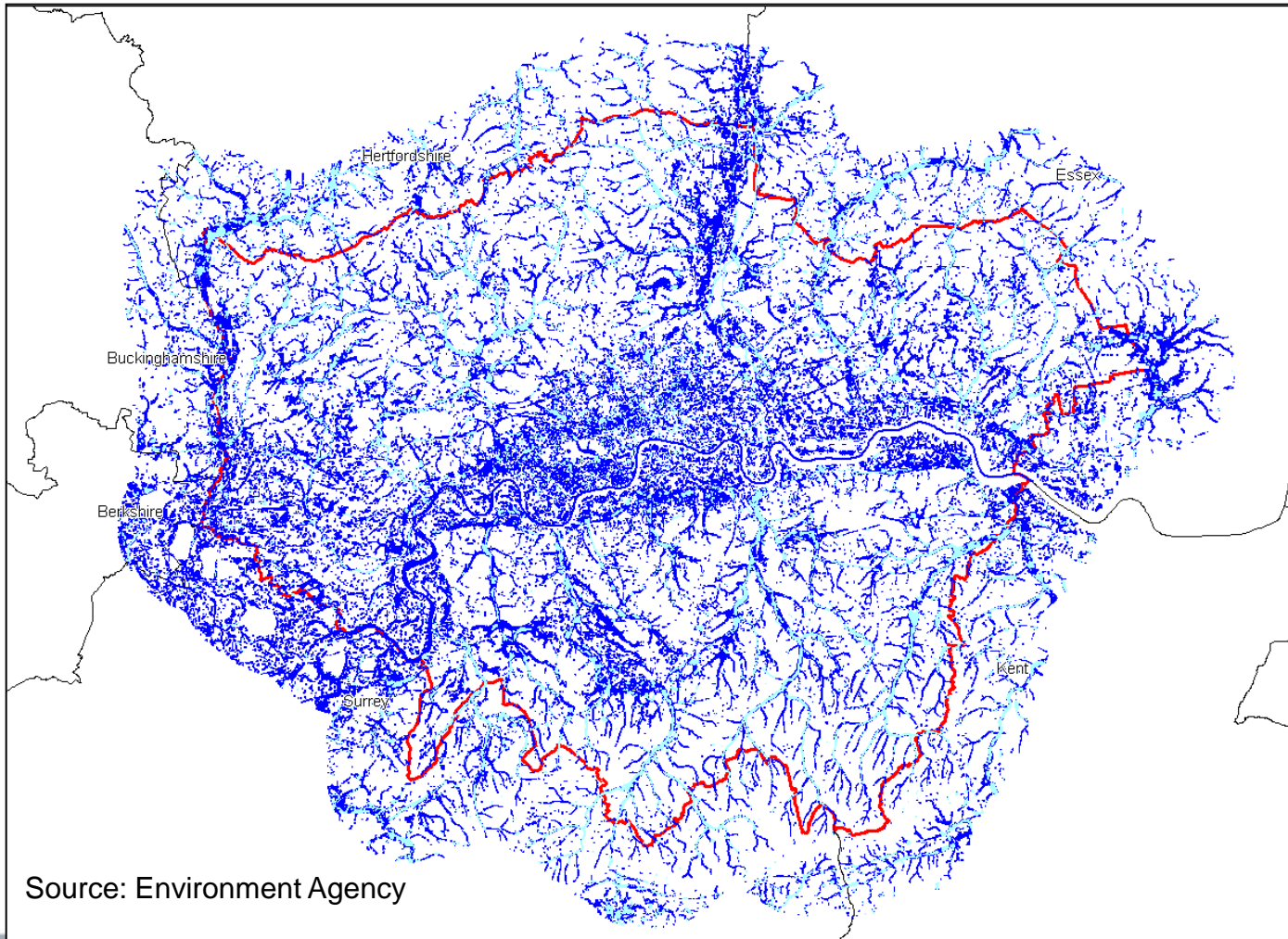
# Overview

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- Framework Documents and Tools
  - Data and Modelling
  - Collaborative Working
  - Prioritisation Matrix
- Challenges and Solutions - SWMP Phases 1 – 4
- Conclusions

# Background

(680,000 properties at risk of surface water flooding from a 1:200 year event)



Source: Environment Agency

# Background

- National Rank Order of Settlements Susceptible to Surface Water Flooding (EA, August 2009)
  - 14 of the Top 15 Settlements are London Boroughs
  - 28 of the 33 London Boroughs are in the Top 50 Settlements



Photo Source: [www.bbc.co.uk](http://www.bbc.co.uk)

# Drain London Forum

- Programme Board

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- Forum

- All 33 London Boroughs
- Transport for London
- Defra
- London Technical Advisors Group

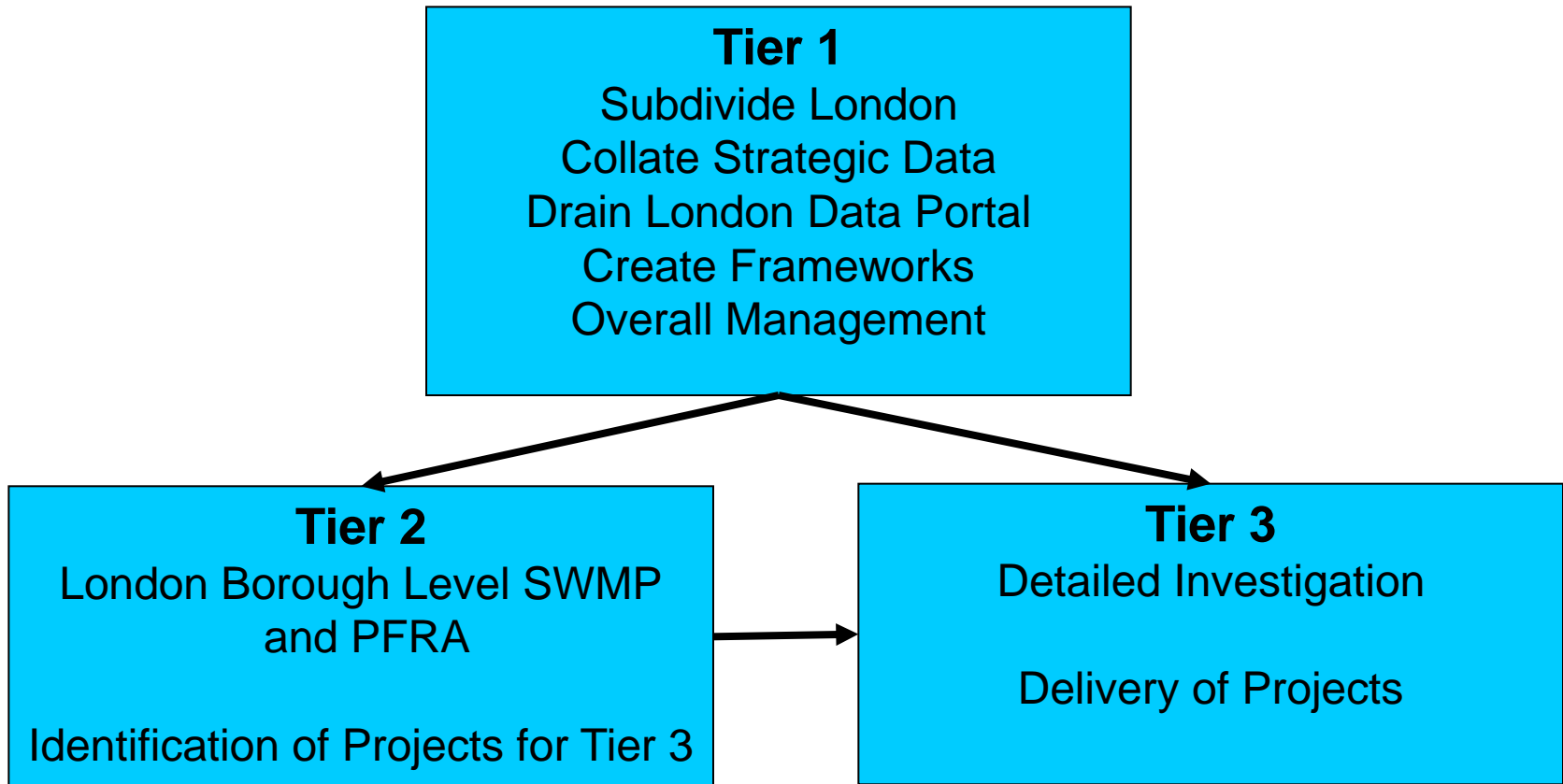
# Objective

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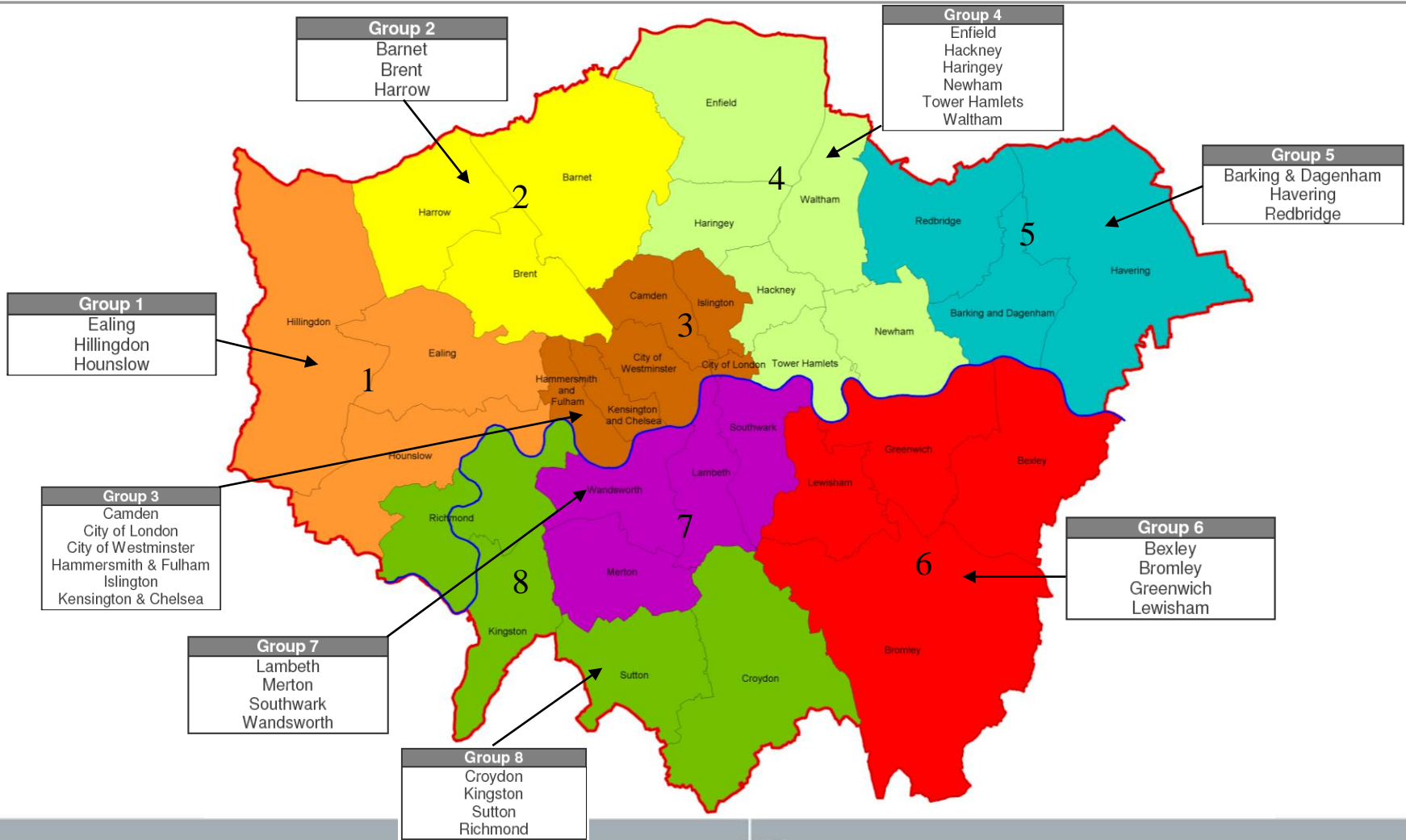
**To manage and reduce surface water flood risk in London**

**By delivering 33 Surface Water Management Plans (SWMPs) and Preliminary Flood Risk Assessments (PFRAs)**

# Delivery Structure



# Delivery Structure

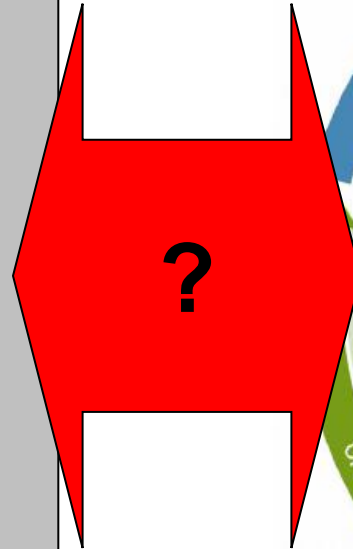


# Alignment with Defra Guidance

Tier 1

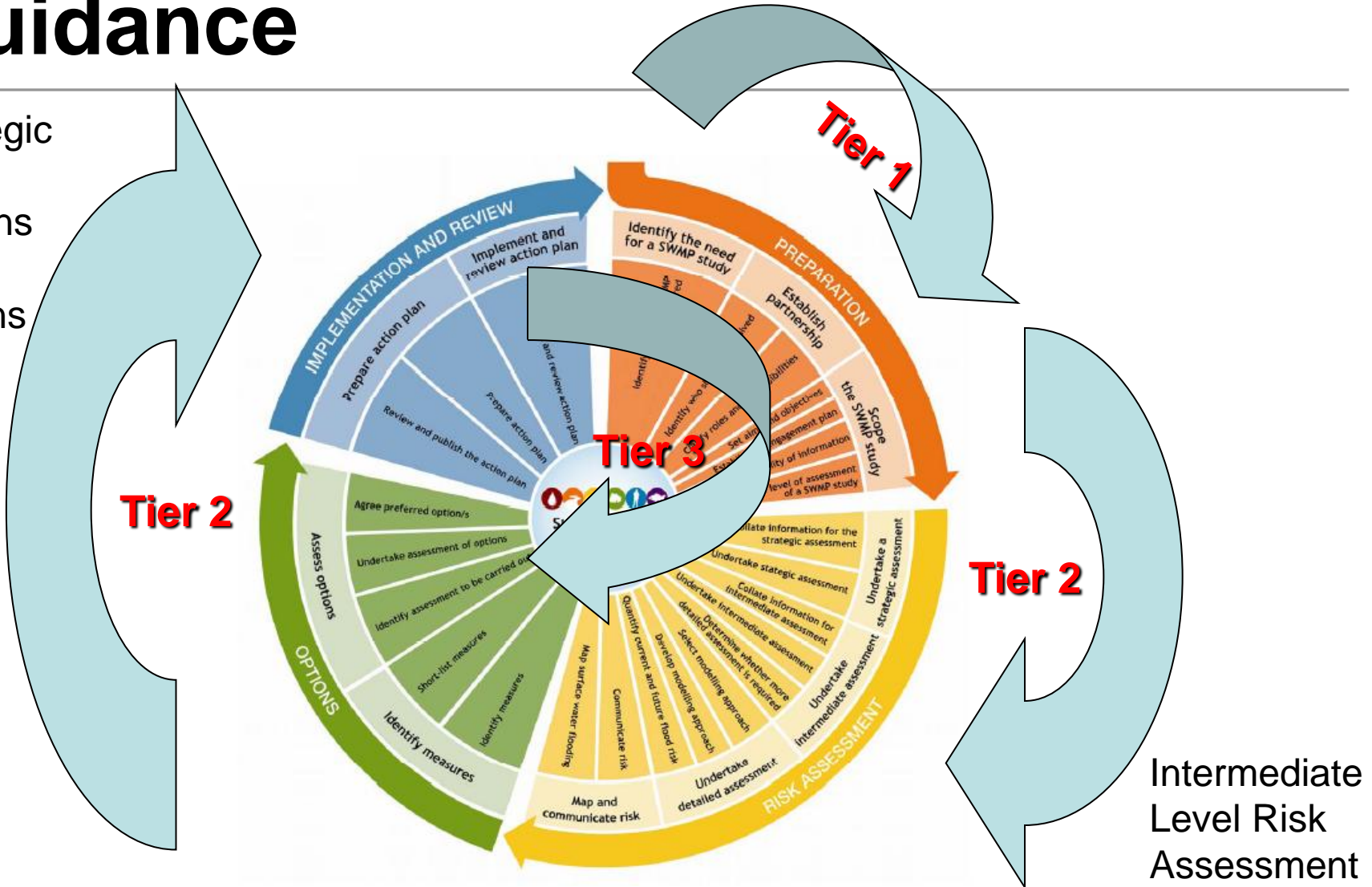
Tier 2

Tier 3



# Alignment with Defra Guidance

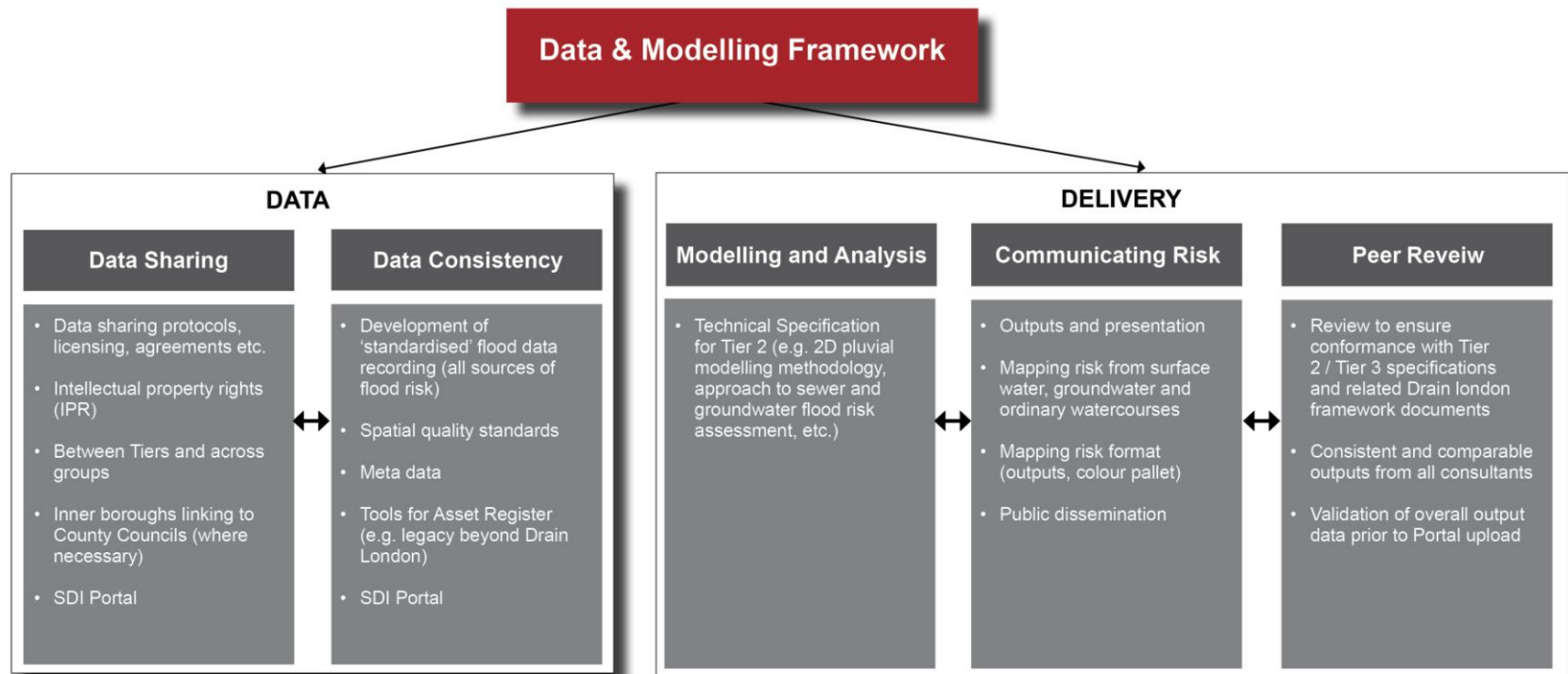
Strategic Level Options and Actions



# Framework Documents:

## *Data and Modelling*

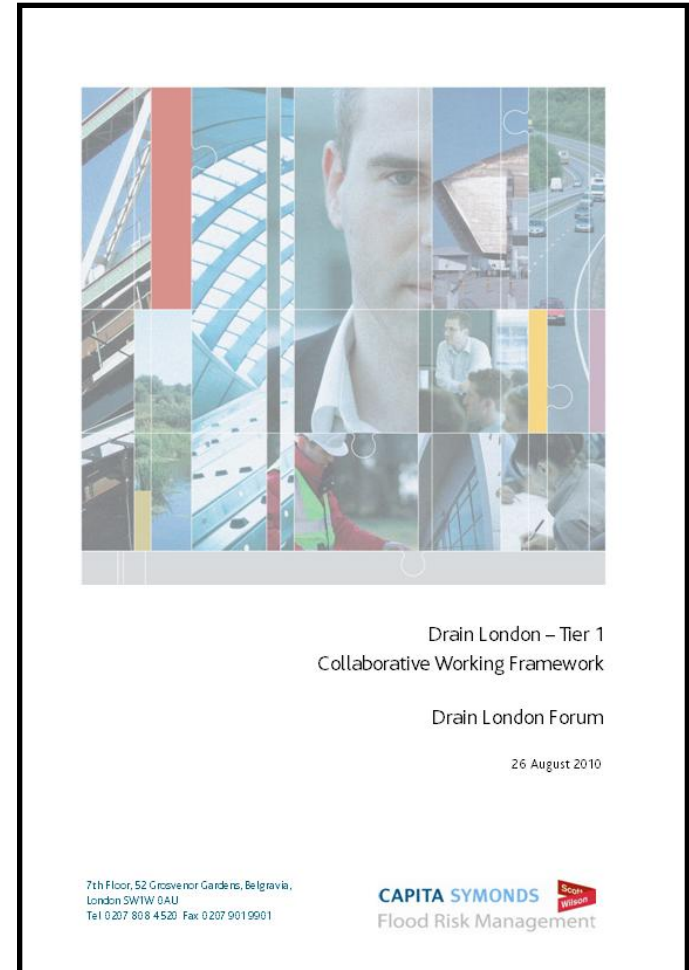
**Objective:** To create a framework to ensure that all data and modelling collated for, used by and delivered by Drain London is consistent and comparable



# Framework Documents:

## *Collaborative Working*


**Objective:** To create a framework enabling collaborative working within the Drain London project



# Tools:

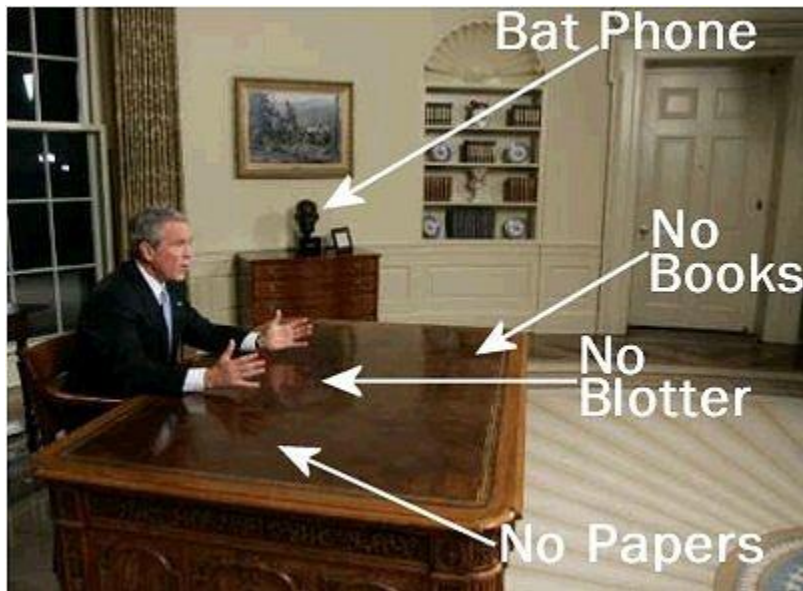
## Prioritisation Matrix

**Objective:** To develop a matrix for prioritising interventions at the 'Area' and local level

GREATER LONDON AUTHORITY		DRAIN LONDON SURFACE WATER FLOOD ALLEVIATION FUNDING SCORE			
Flood alleviation scheme name	<input type="text" value="Example Scheme 1"/>				
London Borough	<input type="text" value="Hounslow"/>				
Category of FRM investment scheme	<input type="text" value="Separate surface water and foul water sewer systems"/>				
Moderation of scheme	<input type="text" value="Deliverability"/>				
Override	<input type="text" value="NO"/>				
<b>Infrastructure</b>	<i>Flood Risk Vulnerability Classification</i>	<i>Weighting</i>	<i>Number of units affected</i>		
SWFA-I1	Essential infrastructure	40	<input type="text" value="2"/>	<input type="text" value="270"/>	
SWFA-I2	Highly vulnerable	30	<input type="text" value="3"/>		
SWFA-I3	More vulnerable	20	<input type="text" value="5"/>		
<b>Households</b>			<i>Number of units affected</i>		
SWFA-H1	Non-deprived	2	<input type="text" value="65"/>	<input type="text" value="210"/>	
SWFA-H2	Deprived	4	<input type="text" value="20"/>		
<b>Commercial / Industrial</b>			<i>Number of units affected</i>		
SWFA-C1	Units	1	<input type="text" value="20"/>	<input type="text" value="20"/>	
				<b>SWFA Funding Score benefits only</b>	<input type="text" value="500"/>
<b>Economics</b>			<i>Cost in £</i>		
SWFA-E1	Scheme Costs		<input type="text" value="150,000"/>		
				<b>SWFA Funding Score cost-adjusted</b>	<input type="text" value="33"/>

# Challenges and Solutions

## *Phase 1: Data Collection*



# Challenges and Solutions

## *Phase 1: Data Collection*

Challenges	Solutions
Identification of appropriate contacts	Programme Board uses political contacts and influence to highlight the benefits of participation in the project
Collection, collation and management of a wide range of datasets	INSPIRE MetaData standard applied during collection process and overall management of data
Negotiation of data use licences between individual organisations	Negotiate single licence for use of data on project level basis that includes all organisations within the project brief.

# Challenges and Solutions

## *Phase 2: Intermediate Risk Assessment*



# Challenges and Solutions

## *Phase 2: Intermediate Risk Assessment*

Challenges	Solutions
Delivering 33 SWMPs to a comparable technical standard	Development and implementation of the Data and Modelling Framework
Managing ongoing technical issues	SWMP Practitioners Forum
Quality Management	Peer Review process is integrated within overall project.

# Challenges and Solutions

## *Phase 3: Options*



# Challenges and Solutions

## *Phase 3: Options*

Anticipated Challenges	Proposed Solutions
Wide variety of similar but slightly different mitigation measures proposed by the four consultant teams	Use a 'toolbox' of standard measures as a starting point for each investigation.
Prioritisation of mitigation solutions across the Greater London area	Use Prioritisation Matrix tool to rank solutions using a common basis.
Different and competing agendas and goals for flood mitigation	Establish the option prioritisation methodology at beginning of study, and then ensure process is transparent and fair.

# Challenges and Solutions

## *Phase 4: Action Plan*

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# Challenges and Solutions

## *Phase 4: Action Plan*

Anticipated Challenges	Proposed Solutions
Implementation of options that cross organisational boundaries (between individual boroughs)	The Collaborative Working Framework ensures cross boundary issues and solutions are identified early in the project and are managed effectively
Implementation of actions within organisations other than the LLFA	Identify mechanisms within the 'other' organisation by which actions will be implemented
Variability in Action Plan formats and acceptance by individual Borough (as LLFA)	Use a standard template for Action Plans to ensure they all include key aspects

# Conclusions

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- Drain London provides a good model for delivery of multiple SWMPs / PFRAs across a large urban area
- Group negotiation of licences and data collection provides significant financial and programme advantages
- High level political backing facilitates participation of relevant organisations outside the conventional core SWMP partnership

# Conclusions

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- Consistency in delivery of outputs enables:
  - Effective cross political boundary cooperation
  - Fair and transparent allocation of funds
  - Strategic management of surface water flood risk across the study area.

# Acknowledgements

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## GREATER LONDON AUTHORITY

- **Kevin Reid** – Principal Programme Manager
- **Alex Nickson** – Strategy Manager

# Questions?



Source: [www.bbc.co.uk](http://www.bbc.co.uk)