



Sewer Flooding Alleviation in the Counters Creek Catchment

**London Borough of Hammersmith & Fulham
17 September 2009**



Sewer flooding – Thames Water's position

- We share our customers' view that sewer flooding inside people's homes is unacceptable and we are serious about providing solutions –
 - Taking Care of Water – our strategy for the 25 years 2010 to 2035 to eliminate high risk sewer flooding
 - £323 million spent from 2005 to 2010 to alleviate sewer flooding – reduce the flood risk to over 5500 properties and areas by 2010.
 - Business Plan 2010 to 2015 – our final business plan included £460 million to reduce the flood risk to 3500 properties

Agenda



1. Action Since July 2007 Flood
2. Study
3. Short-term temporary mitigation
4. Long-term permanent solution
5. Next steps

1. Action Since July 2007 Flood



Customer meetings

Written response to all questions submitted at January 2008 meeting
St James's Gardens residents meeting Boscombe Road
residents meeting

MPs

Flood relief schemes discussed at party meetings with MPs
Meetings with Sir Malcolm Rifkind MP and Andrew Slaughter MP

Local authorities

Hammersmith and Fulham – scrutiny meeting (Oct 2008)
Kensington and Chelsea – meeting with council leader –
Merrick Cockell (Dec 2008)
Kensington and Chelsea – public meeting May 2009

Ofwat

Series of meetings specifically to discuss Counters Creek
Visit to Counters Creek sewer
Action Plan produced

1. Action Since July 2007 Flood



Individual property studies and short-term measures

	Hammersmith and Fulham	Kensington and Chelsea
Number of Contacts made July 2007	286	490
Studies completed	10	223
Storm flaps installed	2	90
Customers investigated and mitigation found not suitable	7	36

Norland Square

- We are currently constructing a large flood relief scheme at Norland Square
- This will significantly reduce the number of properties on our 'high risk' register by March 2010



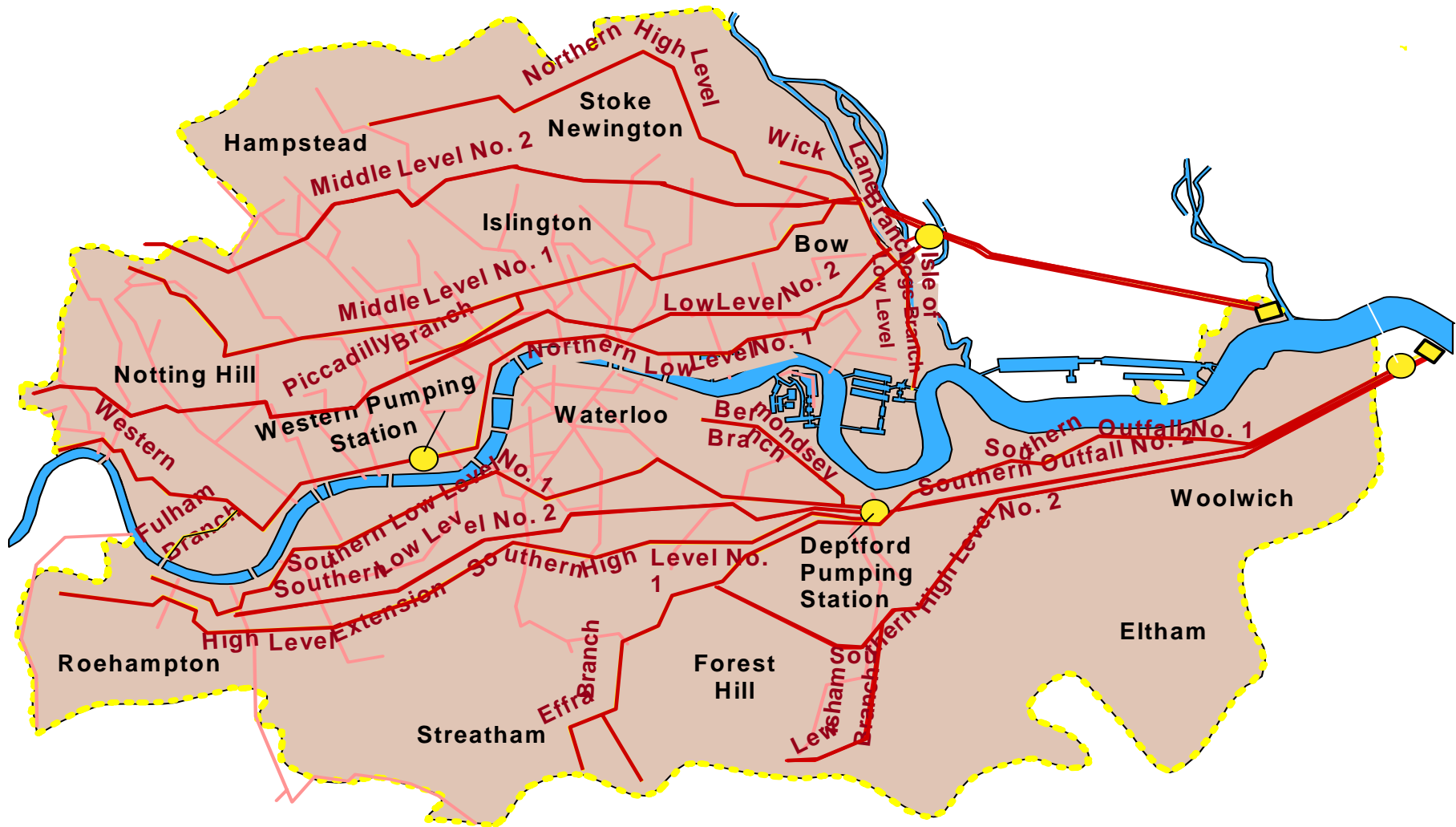
1. Action Since July 2007 Flood

■ Long-term study and investigation

- Work has been ongoing for last two years on computer 'model' to improve understanding of how local sewer networks responds to various rainfall patterns.
- Despite best endeavours to eliminate high-risk flooding, model indicates significant number of basements are at risk and situation will worsen if no action is taken in future.

2. Study

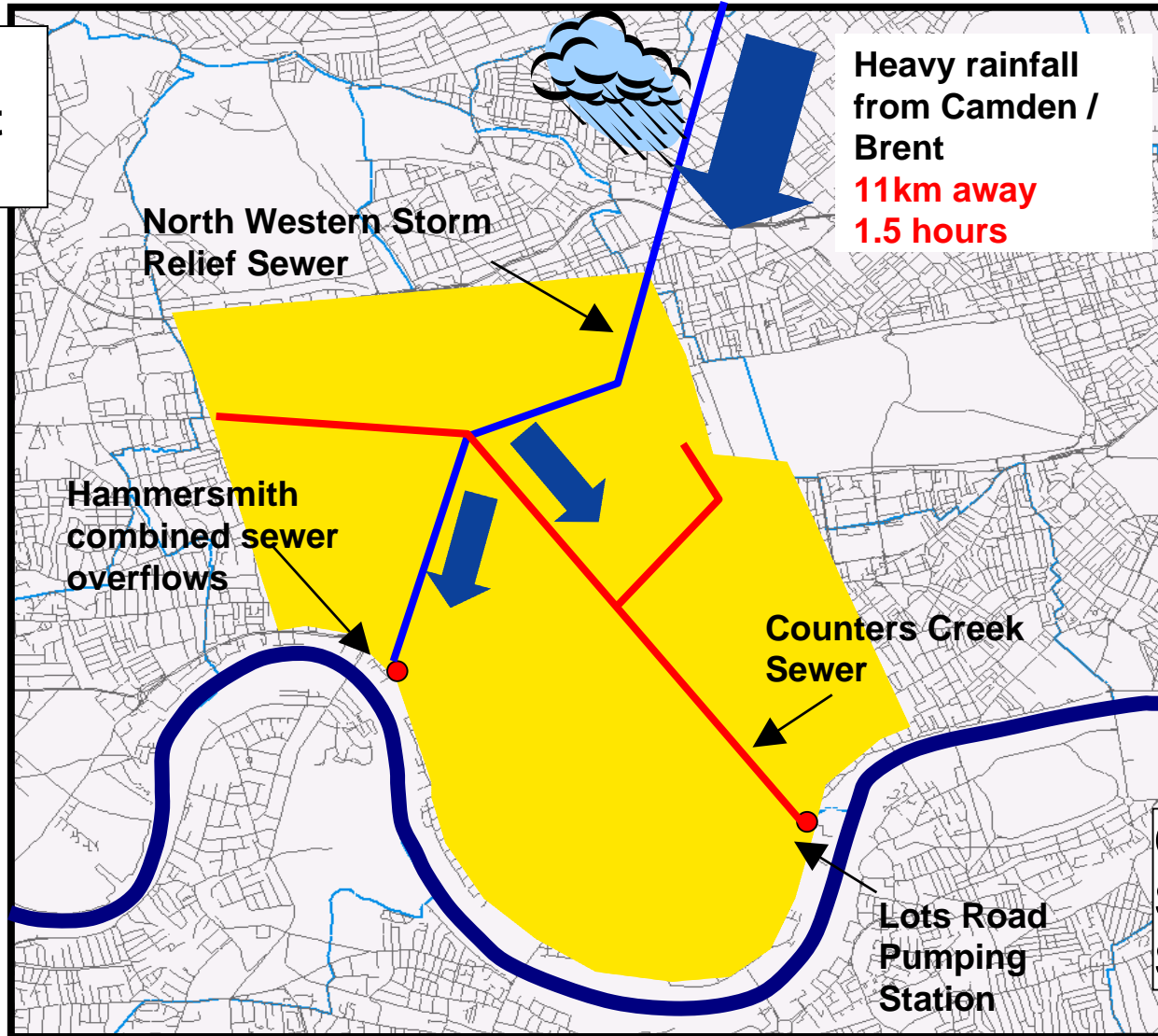
Interceptor sewers at present day



2. Study



Wide Catchment Area



Combined Sewerage System

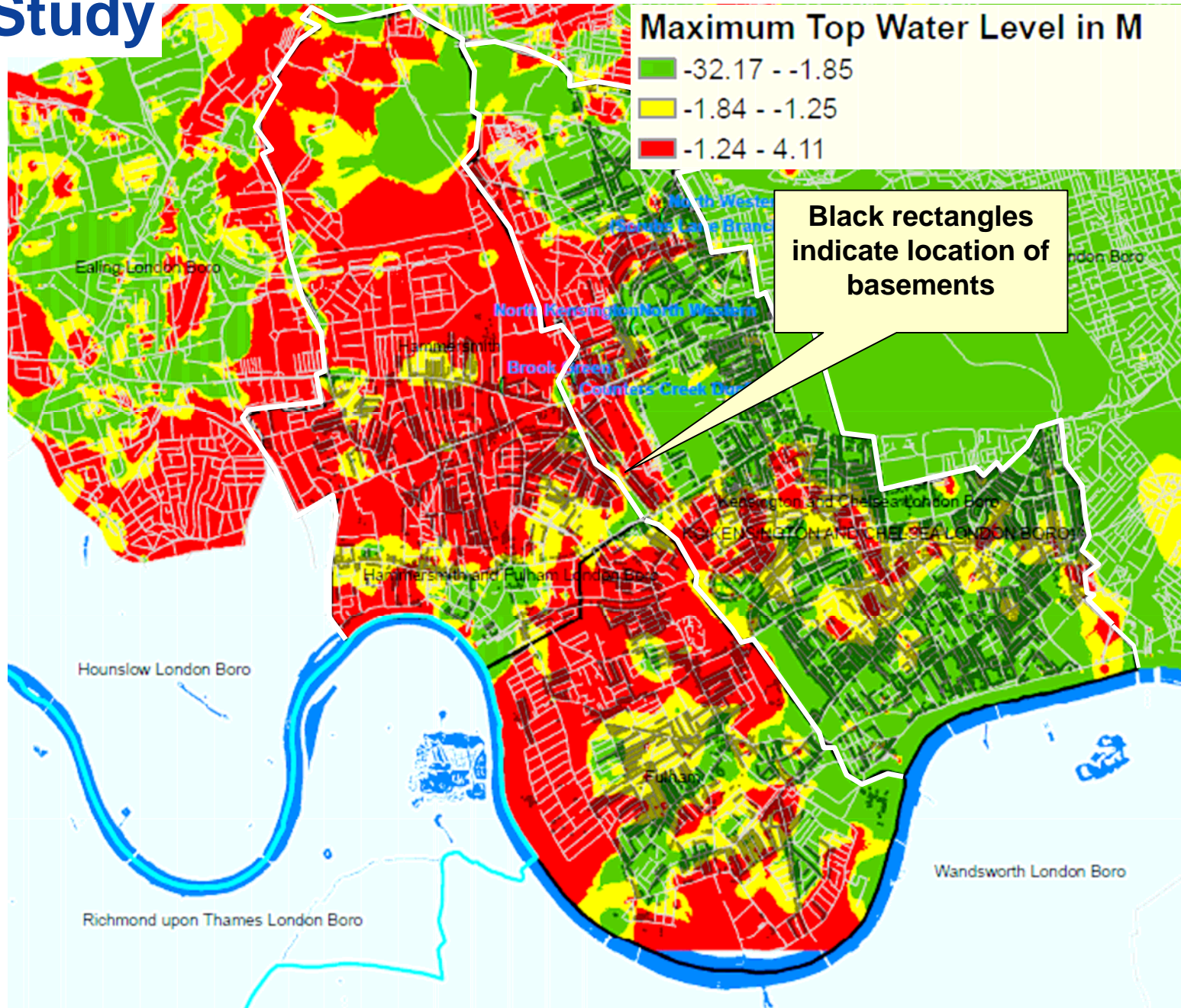


2. Study

Characteristics of local area increase risk of flooding:

- Wastewater enters Counters Creek from as far away as Brent and Camden.
- 17% increase in impermeable area (due to paving over of gardens etc) since 1971
- Sewers are shallow and have to be pumped into the River Thames during heavy rain.
- There are 37,000 basements in the area which is around 5 times higher than the national average
- **1,400** properties are on risk registers from incidents customers have reported in 2004, 2005 and 2007 and earlier events
- Of the above, 500 flooded for the first time in July 2007 storms across the area. Study suggests they will not flood in next 20 years or more.
- Study suggests around 7,500 basement properties are currently at risk of flooding due to a 1 in 10 year or more frequent event

2. Study

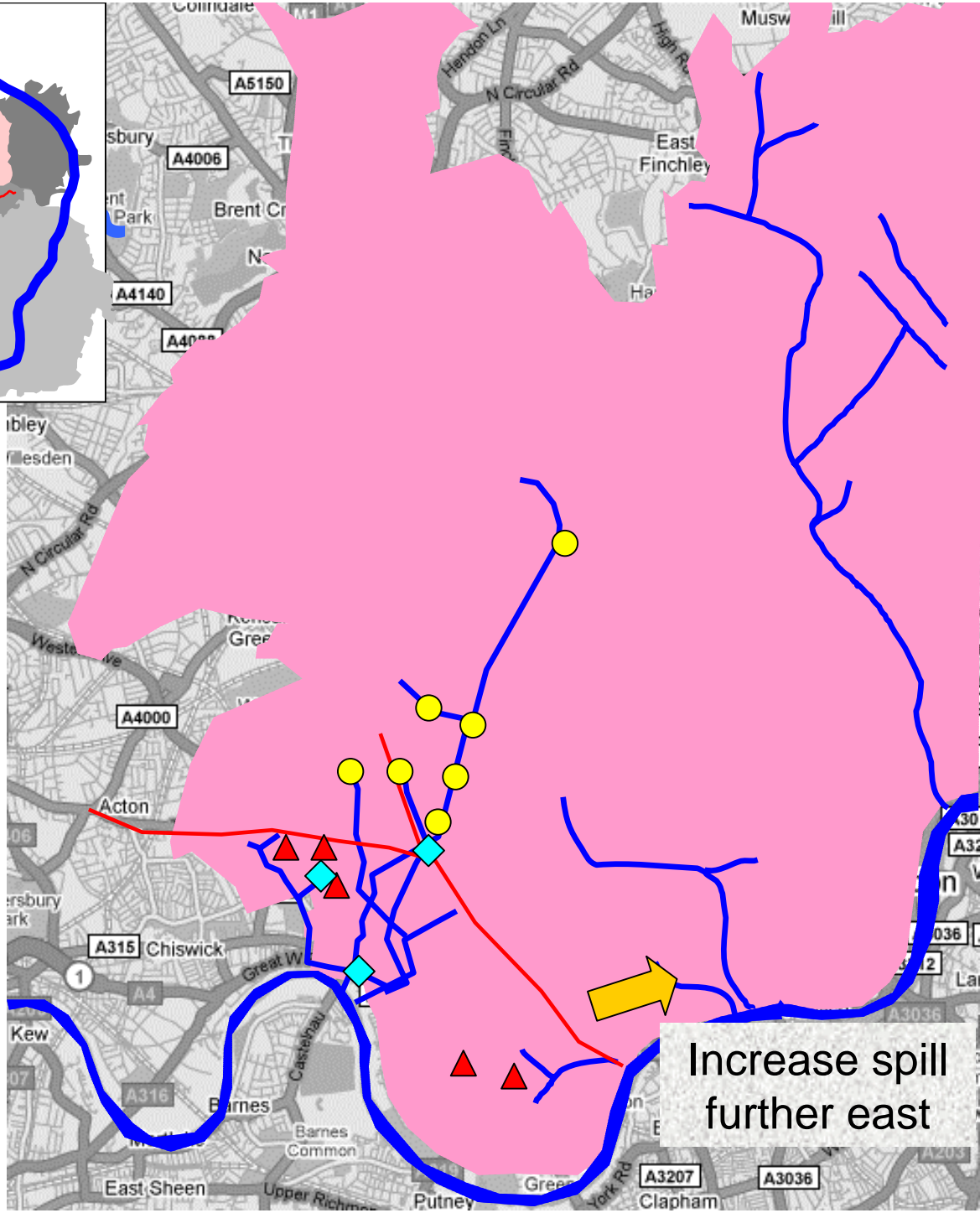
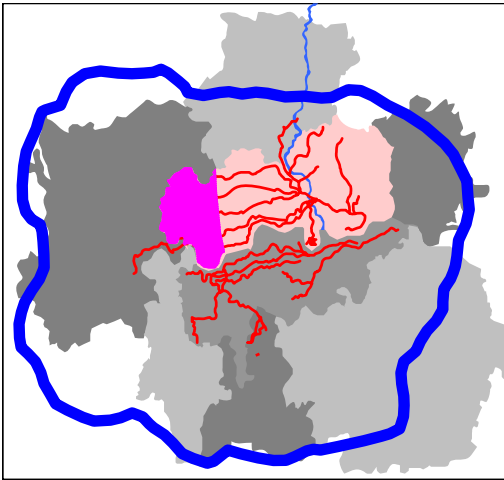




3. Short-term temporary mitigation

We are currently investigating what can be done to mitigate the risk of flooding in the short-term and are due to present our conclusions to Ofwat by the end of September:

- Protect individual properties
- Protect specific streets
- Restrict the flow coming into the area from the north
- Increase flow to the River Thames
- Increase flow out of the area to Beckton Sewage Treatment Works



KEY

 Extent of Beckton catchment

 Existing storm relief sewers

 Counters Creek

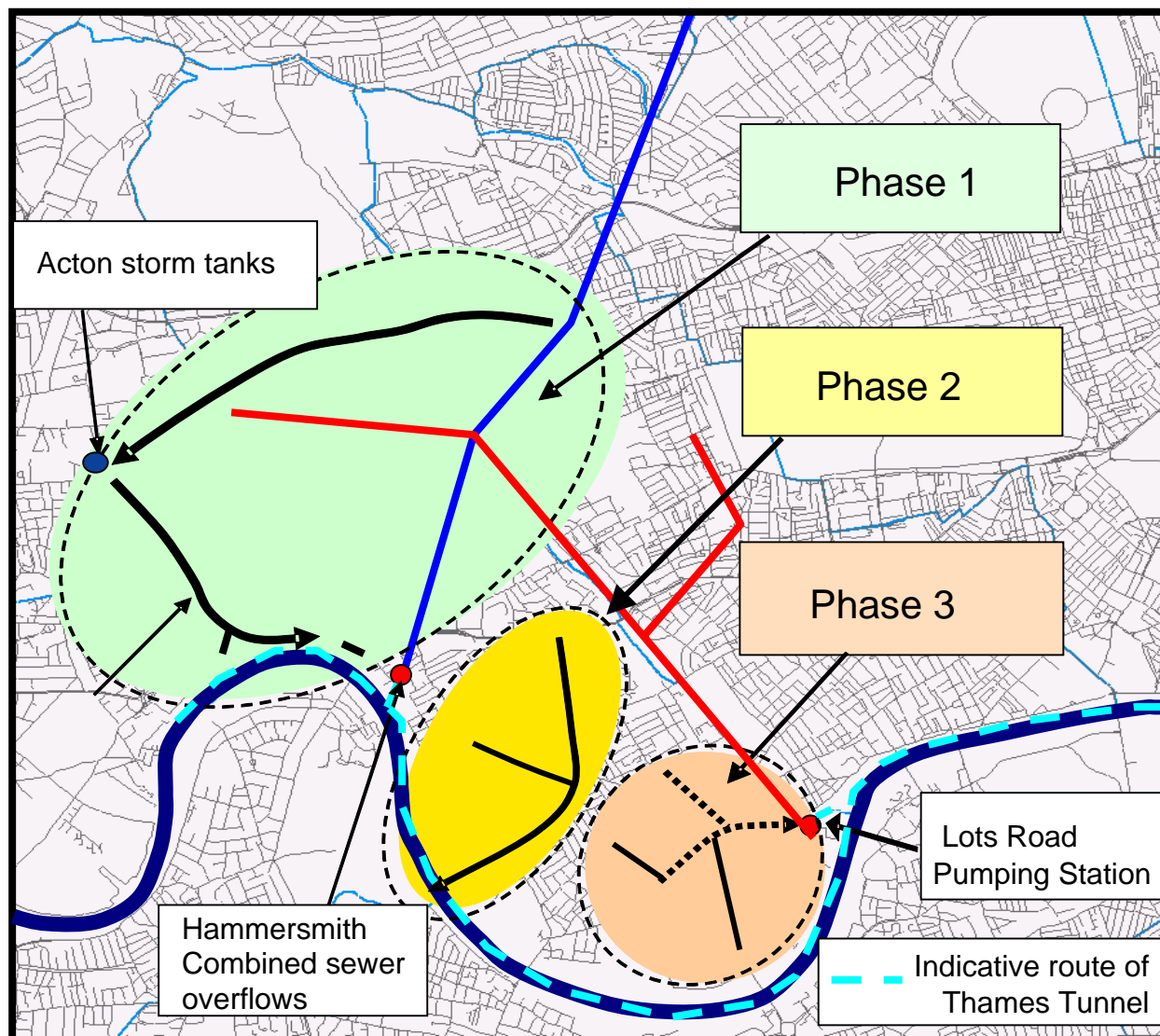
 Storage Tanks

 Throttles

 Redesign overflow chambers



4. Long-term permanent solution



Counters Creek Project

- Reduces high risk flooding
- Local solution to a local problem
- Not reliant upon the Thames Tunnel
- Developed and constructed over next 9 years

Thames Tunnel Project

- Independent project to improve river water quality



5. Engagement with Ofwat / Next steps

Responsibilities

Thames Water

Investigate, design and construct solution to protect properties from flooding

Local Authority

Take a lead on planning applications that could adversely affect drainage, and work to co-ordinate agencies' involvement

Ofwat

Work on behalf of customers, with Thames Water, to ensure right solution at affordable price

Customers

Report all and every case of flooding



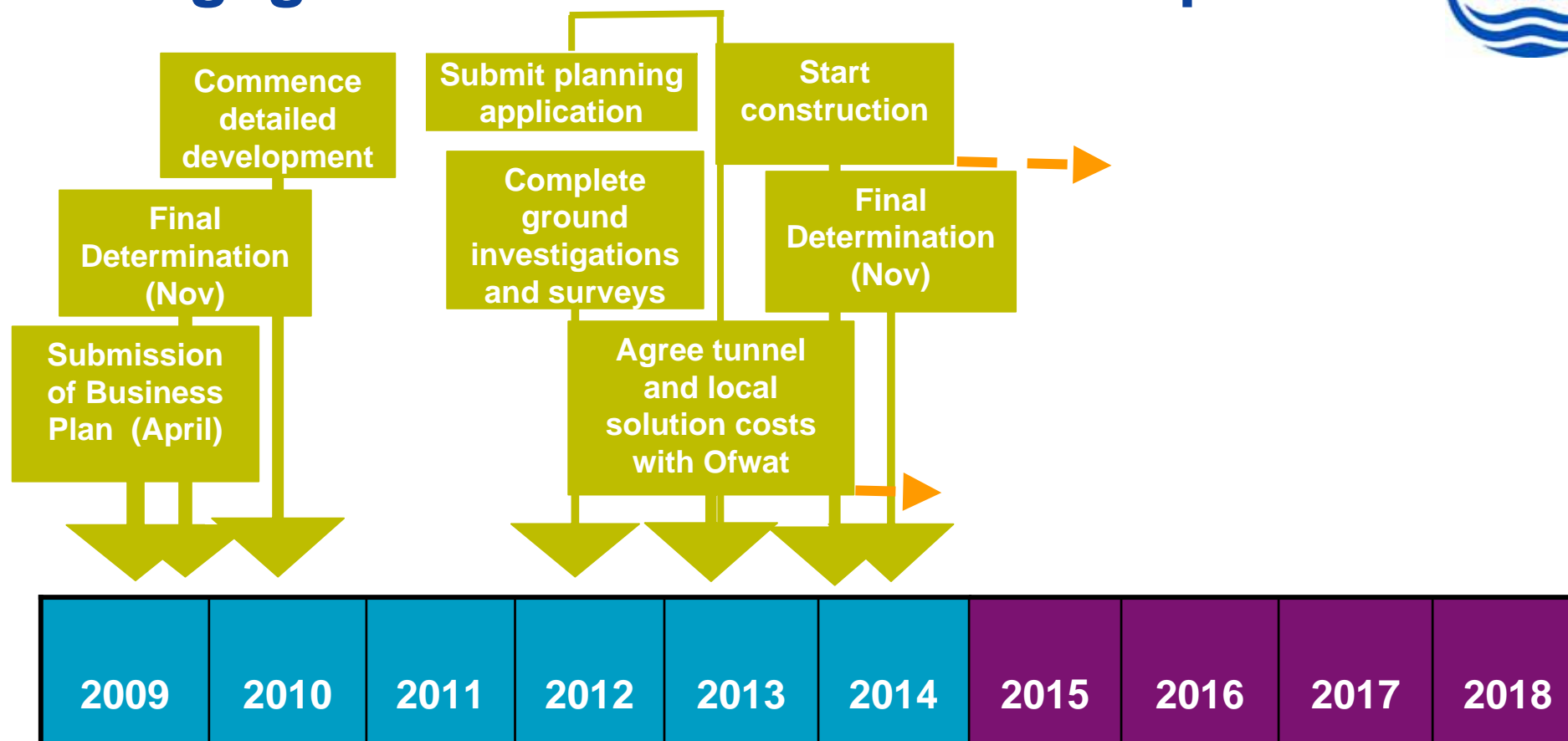
5. Engagement with Ofwat / Next steps

We have been proactive in our engagement with Ofwat to resolve this problem. Significant time and effort has been spent in explaining the scale of flooding and appraising a wide range of options to alleviate this risk.



- Ofwat site visit 30 March 2009
- Final Business Plan submitted April 2009 – included £32m to develop long-term solution
- Action Plan submitted to Ofwat June 2009
- Draft Determination July 2009 – 50% of investment requirement to develop long-term solution funded
- Final meetings and further evidence to be completed by 25 September 2009
- Ofwat's Final Determination due 26 November 2009
- Next Hammersmith & Fulham meeting 30 November 2009



5. Engagement with Ofwat / Next steps



Six monthly updates to customers | Ongoing communications

-  Planning and development
-  Construction

6. Questions and Answers



www.thameswater.co.uk/counterscreek