



# **Sewer Flooding Alleviation in the Counters Creek Catchment**

**London Borough of Hammersmith & Fulham  
and Royal Borough of Kensington & Chelsea**

**22 and 25 November 2010**

# Flooding events since our last meeting



- Since June we have received reports of 30 properties being flooded.
- There was a significant flooding event on 2<sup>nd</sup>, 3<sup>rd</sup> & 4<sup>th</sup> October 2010 in the area following prolonged rainfall – 21 properties reported being affected.
- Many customers affected by flooding have not reported this – WE NEED YOUR HELP TO TELL US IF YOU HAVE BEEN AFFECTED OR YOU KNOW OF ANYONE WHO HAS BEEN FLOODED. We need as much information on this as possible to ensure the funding is secured for robust and long term solutions to the problem
- You can always call us, 24 hours a day, on 0845 9200 800 (Minicom or Typetalk: 0845 7200 898).
- Our sewer flooding questionnaire can be found on our website at <http://www.thameswater.co.uk/cps/rde/xbcr/corp/sewer-flooding-questionnaire.pdf>

# Thames Water's commitment to resolving this issue quickly and cost effectively



- Short term protection of more than 600 properties at highest risk of flooding is in progress and proceeding at great speed
- Basement surveys and gathering of data on all other at-risk properties has commenced
- Guidance received and ongoing from the panel of independent experts who will ensure that all aspects of the long term solutions are fully considered, including sustainable drainage solutions
- All proposals will be assessed for cost effectiveness to ensure money is well spent
- Regular meetings set up with Ofwat to discuss the Counters Creek scheme

# Agenda for this meeting



- Independent Advisory Group involvement
- Summary of progress since last meeting in June 2010
- Questionnaires and surveys of other at-risk properties
- The FLIPs programme
- Studies being undertaken or planned
- The long term solutions
- Programme
- Questions?

# Independent Advisory Group



- TW have appointed three international experts to form the Independent Advisory Group (IAG). Their role is to provide information on possible alternative techniques and advise on the best case for minimising the cost to customers.
- The IAG have already started by leading workshops held in Reading on the 24<sup>th</sup> September & 5<sup>th</sup> November 2010 to critique and review current proposals.
- IAG members are:        Professor Bob Andoh, Hydro International;  
   Professor David Balmforth, MWH Ltd;  
   Professor Adrian Saul, University of Sheffield
- These experts will meet regularly to provide advice, guide the direction of studies, examine all proposals and review the findings.
- They have been chosen for their international experience, devotion to sustainable drainage solutions and reputations for providing sound advice.
- They will be paid by Thames Water but have complete independence.



# Summary of progress since last meeting in June

- Programming and design teams have been set up.
- First meetings and reviews of our proposals of a long term solution by the Independent Advisory Group.
- Contract awarded for a second wave of door-to-door questionnaires and surveys of basements for all at-risk properties – work commencing December 2010 and expected to last three months.
- This information is needed to improve the hydraulic modelling and our understanding of how the sewerage network behaves
- The questionnaire will be used to make a more robust case for the long term solution and obtain Ofwat support

# Questionnaires and surveys of other at-risk properties



- Basement level and flooding data needed for hydraulic modelling of sewer network.
- Discrepancy between current model (7,500 properties at some risk) and reported flooding incidents (1,400).
- A list of 5,700 properties has been identified according to risk criteria. Aiming for 3,000 basements to be surveyed.
- Need the support of you, the local community.
- This will involve door-knocking and personal interviewing.





# What is a FLIP?

- FLIP stands for 'flooding local improvement projects'
- A FLIP is essentially a mini pumping station concealed within a manhole chamber, protecting one or more properties from flooding.
- Waste water from the property is pumped to levels above the maximum water level in the main trunk sewer at times of heavy storm rainfall.
- A FLIP device prevents raw sewage from backing up from the main sewer and flooding properties.

# The installation of a FLIPs device



- The FLIPS device is installed underground, located within a standard manhole chamber
- The FLIP is concealed by a normal recessed manhole cover



# The FLIPs programme

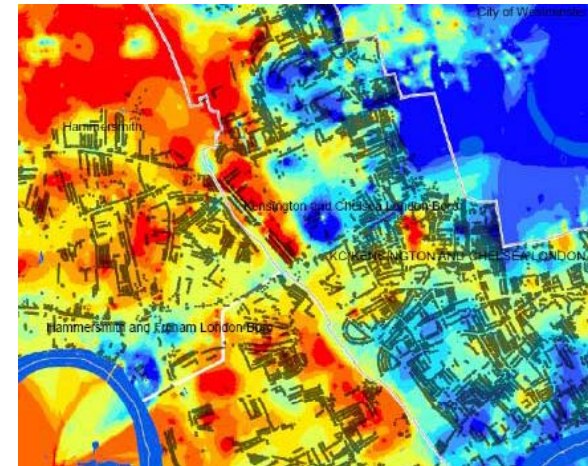


- To date we have written to 508 customers of which 223 have responded positively.
- First contract for FLIP devices at 50 properties is in progress. These have all been surveyed and 10 installations had been completed by the end of last week. The rest are installations which are being installed or are in the planning stages for installation.
- A FLIPs installation on average costs Thames Water £35,000 per property. It does not cost the customer anything.
- It takes approximately 3 weeks to install and test a FLIP device.
- Thames Water are to install a total of 634 FLIP devices in properties which we have identified as being most at risk.
- The contract to install the remaining FLIPs devices has just been let.
- The FLIP installation programme will take about two years to complete, currently scheduled to finish by the end of spring 2012.

# Long term solutions - 1



- Sewer flooding and basement level surveys.
- Weir board level surveys to validate sewer models and flow monitoring.
- Rainfall data and RADAR analysis to determine peak flows and design storms.
- Develop sustainable options (SUDS) to optimise the storm relief sewer sizes.
- Hydraulic sewer network modelling to confirm the effectiveness of various SUDS and engineering options.
- Relief sewer route confirmation and options for suitable construction sites for the engineering.
- Environmental and planning consultants being appointed to advise on environmental and planning requirements for the project.



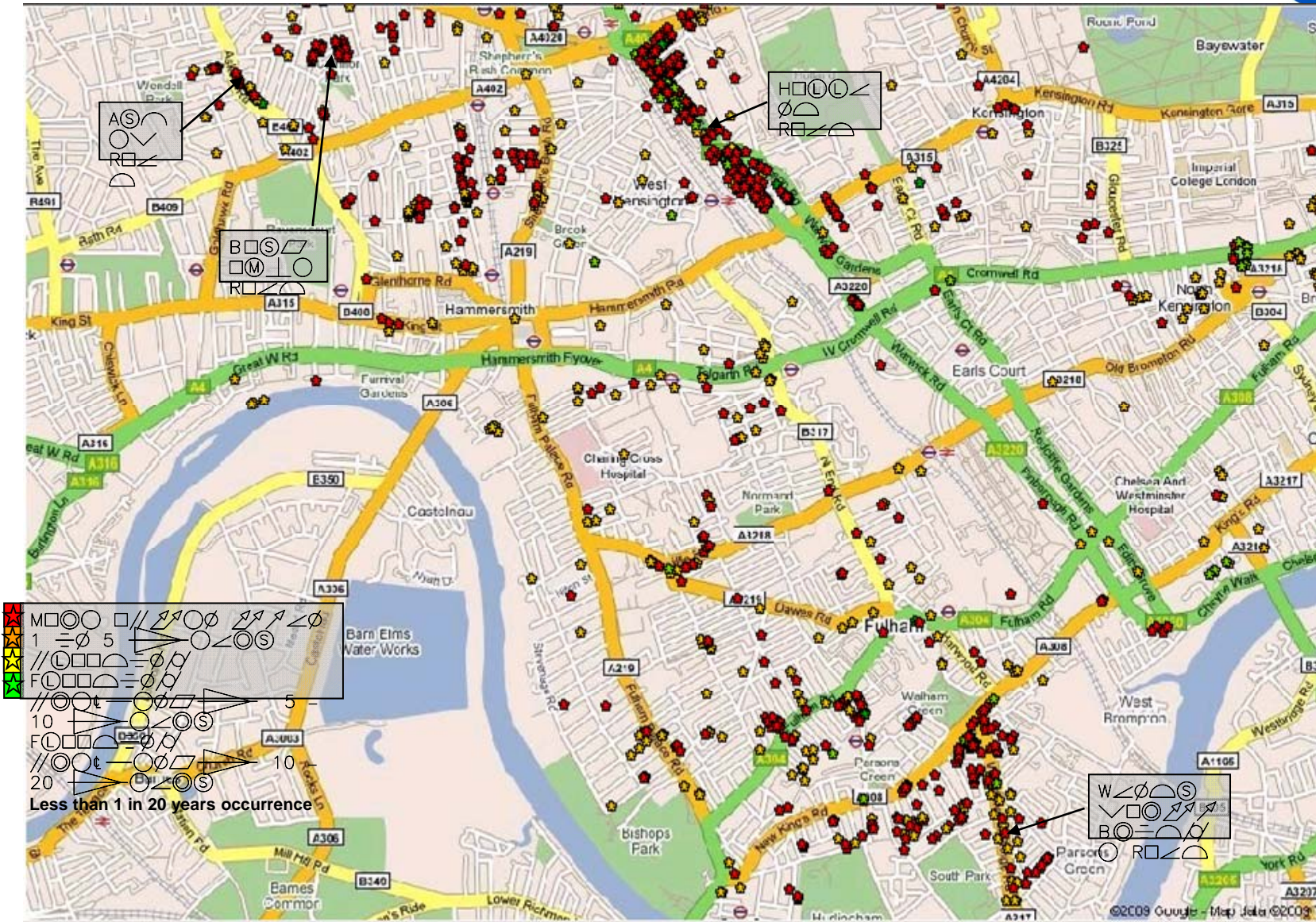
# Long term solutions - 2



- New storm relief sewers for the northern parts of LBHF and RBKC.
- New storm relief sewers for central and southern parts of Fulham.
- Possible links to the Thames Tunnel project.
- Sustainable urban drainage systems (SUDS) identified.
- Increasing pumping station capacity or provision of additional pumping stations.

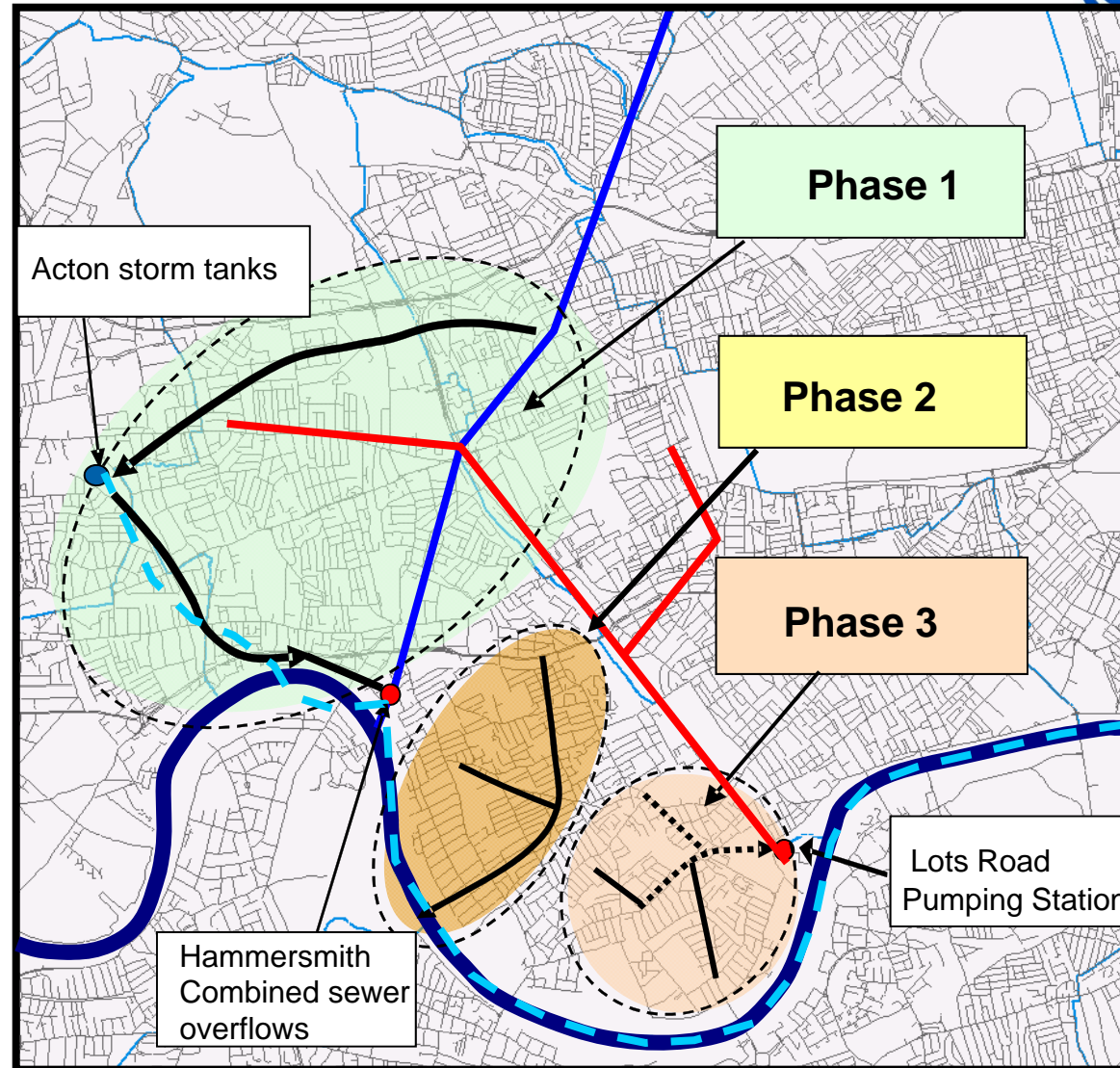


# Basement flooding locations



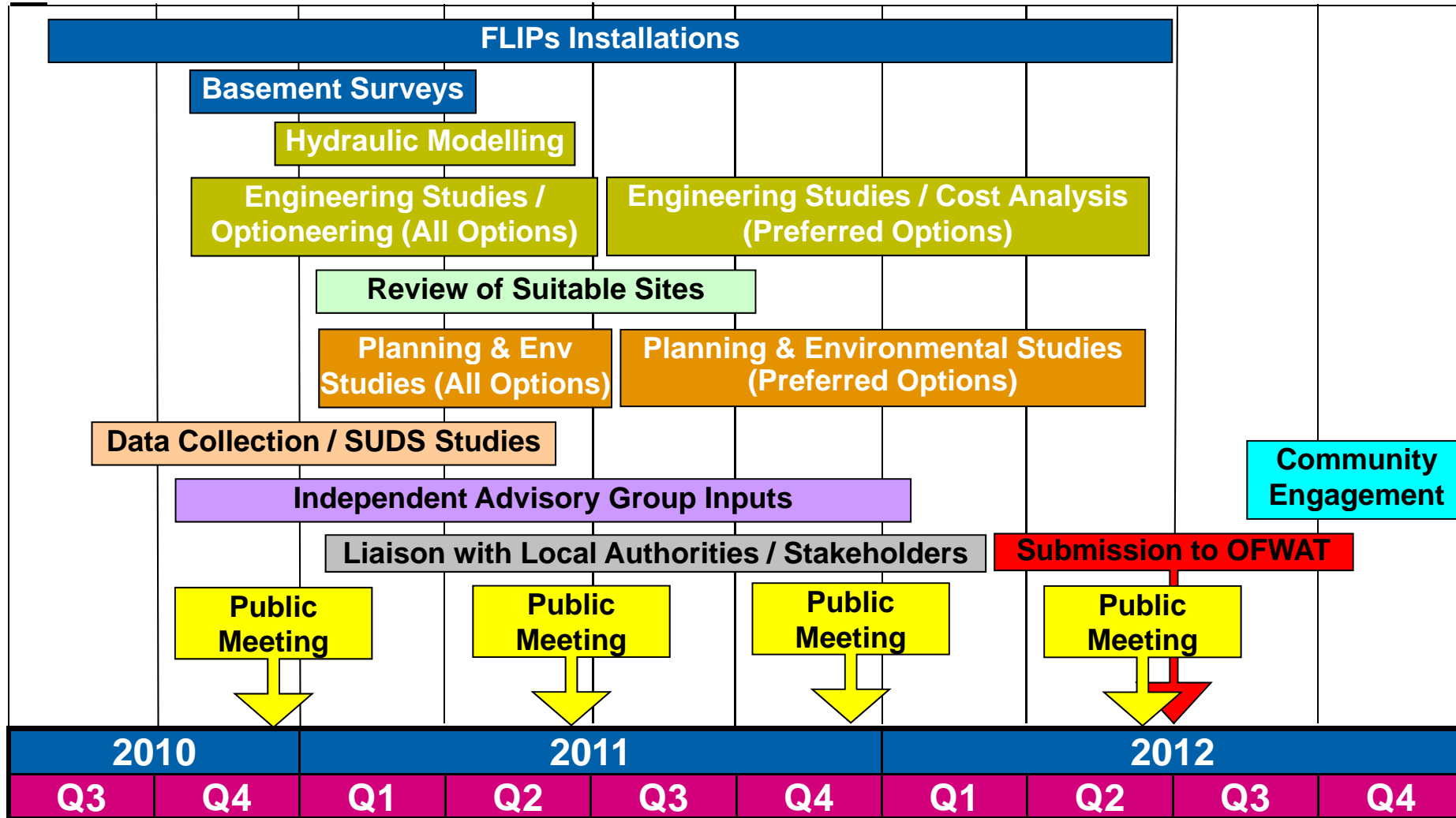
# New storm relief sewers

- Current proposal
- Local solution to a local problem
- Thames tunnel is an independent scheme but current public consultation shows connection tunnel to Acton storm tanks
- All options being considered with or without connection to Thames Tunnel
- Studies ongoing to find the most cost effective scheme



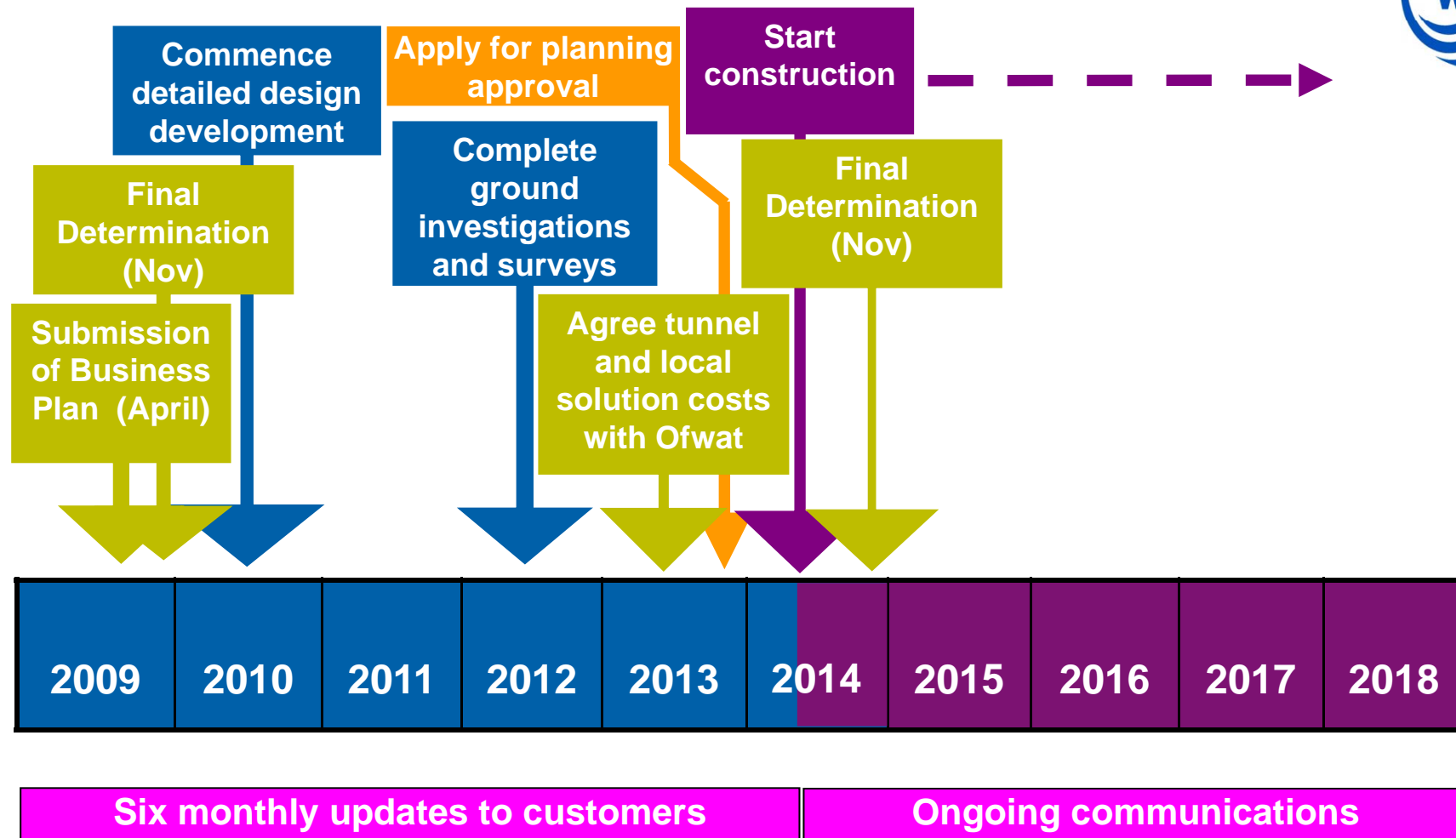
Key:	<span style="color: red;">—</span> Counters Creek sewer	<span style="color: blue;">—</span> NWSR sewer	<span style="color: cyan;">- - -</span> Indicative route of Thames Tunnel
	<span style="color: black;">—</span> Proposed new sewers	<span style="color: black;">- - - -</span> Upgraded sewers	

# Programme to end of 2012





# Long term programme



- Planning and development
- Construction; Phases 1, 2 & 3



# How can you help?

- Help with the surveys and questionnaire.
- Any information you can provide on events.
- Any friends or neighbours you know have been impacted.
- Any photographs you may have of the events which affected you.
- This information, additional to that we already have, can be very useful in compiling a robust case to Ofwat for funding and implementing a long term solution.

# Next Public Meetings on the Counters Creek sewer flooding alleviation scheme



We are planning to hold the next public meetings on:

- 6<sup>th</sup> June 2011 at Hammersmith Town Hall

and

- 9<sup>th</sup> June 2011 at Kensington Town Hall



Questions ?

