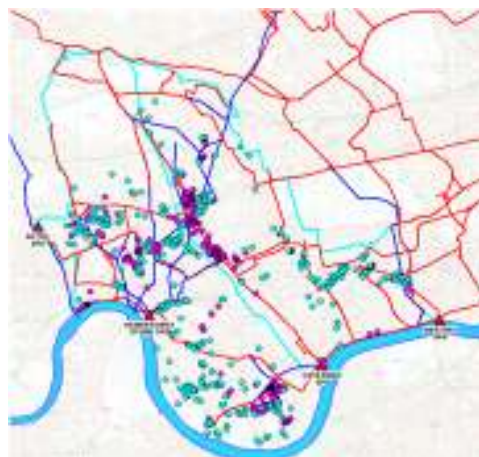
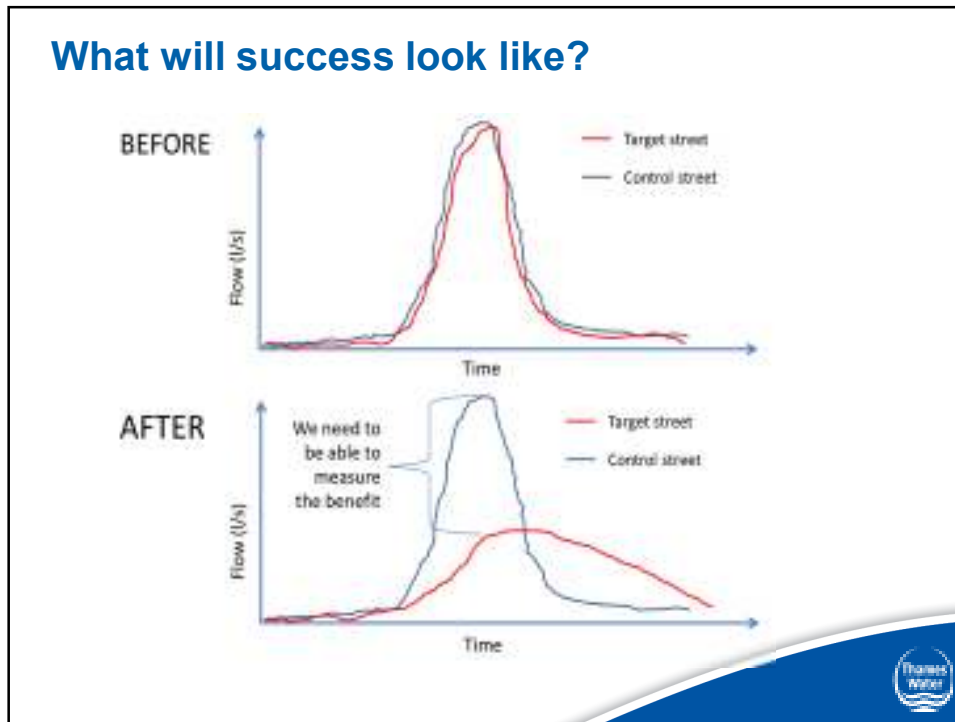


Counters Creek SuDS retrofit trials

- Counters Creek is one of London's "Lost Rivers" – becoming a combined sewer in the 19th century
- Urban creep has led to a 20% loss of green space between 1970 and 2007
- The area has approximately 37,000 basements with more than 2,000 at risk of sewer flooding





The SuDS questions to answer

- Will local communities let us adapt their properties and streetscape?
- Will Highway Authorities let us adapt their roads and footways?
- Will it be cost-beneficial?
- Can they be implemented at sufficient scale to be effective?
- Who will maintain them?
- Can their effectiveness be maintained?

Flow measurement before and after

- Flow, depth, velocity sensors and rain gauges operating since May 2012 and will be retained, post-installation of SuDS
- Ongoing calibration checks with methodology reviewed by an Independent Advisory Group (Profs Balmforth, Saul, Andoh)
- Verified and audited InfoWorks CS model produced for “before and after” assessment of SuDS performance
- Flows from individual SuDS measures will also be monitored and used to interpret the changes relative to the baseline flow data.



Flow monitor installation for FM512, Lansdowne Rd during low flow conditions



Arundel Gardens

- Conservation area with 5 storey terraced homes
- Many homes converted to apartments
- Wide roadway and footway
- Large private communal gardens
- Predominantly prosperous professionals





Trees in Hard Landscapes
A Guide for Delivery
Consultation draft

Tree Change Action Group
Environment Agency
Local Authorities
Faculty of Engineering
ICE

21st century opportunities and challenges

Collaborative approach to solving urban drainage problems

Creating and enhancing

Sustainable drainage systems

Integrating urban trees

Consultation draft

Mendora Road

- Typical terraced housing with pitched roofs
- Small front yards
- Relatively narrow road
- Prosperous young professionals



Mendora proposed scheme

Melina Road

- Half of the street is pedestrianised next to a school
- Adjacent to park with a natural bowl
- Small terraced homes where roof drains to backyard
- Young, multi-ethnic community. Some students and young families




Stakeholder engagement



Summary of Stakeholder Engagement in Counters Creek Area



Stakeholder	Previous Relationship	Current Relationship
LB Hammersmith & Fulham and RB Kensington & Chelsea	Positive. Supportive of the Counters Creek programme.	Collaborating closely on the SuDS pilot and other council-led SuDS initiatives. Continues to positively support the flood alleviation scheme.
Residents	Originally somewhat hostile and adversarial after significant local flood events. Relationship improved as time elapses since the last event.	Most residents that continue to follow the wider flooding alleviation scheme are supportive of the SuDS pilot.
Conservation Societies and other local groups	Combative. The groups are highly vocal, influential advocates for a solution.	Constructive, continue to push for solutions. Have offered to help e.g. in opposing new development.





Definition, Procurement, Delivery

Tabatha Bailey, Head of Programme
Delivery, Counters Creek



Scope Review

Drivers:


- Cost higher than budget
- Detailed day long workshop with the council clarified constrains and concerns

Validation:

- Input from the IAG to ensure pilot remains robust in terms of measurable outcomes and the most repeatable measures

Result:

- Removed measures that were duplicated across sites – no additional value in trialling a measure in two identical scenarios
- Removed measures that were not cost-beneficial e.g. domestic green roofs
- Removed tree pits from Arundel Gardens on advice from the council on risk to subterranean development
- Include SuDS activities across Thames Water e.g. the proposal to “de-pave” some front garden parking areas and those SuDS activities of Hammersmith and Fulham



Design Workshop with Councils



We held an all-day design workshop with LBHF and RBKC with representatives from the following teams:

- Highways
- Park service
- Flooding
- Arboriculture
- Procurement
- Environmental Projects and Policy
- Biodiversity and Horticulture
- Forward Planning

A number of the above borough departments are Bi-Borough.
Both boroughs expressed the desire to be both innovative and ambitious



Highlights of the Design Workshop



Both boroughs expressed the desire to be both innovative and ambitious in the trials. Two key outcomes were to:

- Include a trial of permeable road surfaces
- Procurement – consider using council term contractors to deliver the on-street measures (if they are competitive).

Benefits include:

- Reducing handover issues
- Increase confidence in ability to maintain
- Give term contractor experience in delivering permeable roads



Questions?

