Flood Risk Management in Southwark

Presented to
Borough & Bankside Community Council

By Flood and Drainage Team

25th April 2012

IN BRIEF

- Background
- Legislation
- What have we done?
- What are we doing?
- What can you do?
- Questions and Answers

Background

Flooding occurs when large amount of water accumulates on previously dry land.

Historical Flooding

Widespread flooding in 2004

Also affected Southwark

Surface water flooding a National issue

Again, summer of 2007

Yorkshire, Gloucestershire and others

Southwark, lesser extent

Total cost of 3.2 billion

Average cost, businesses 75-112k

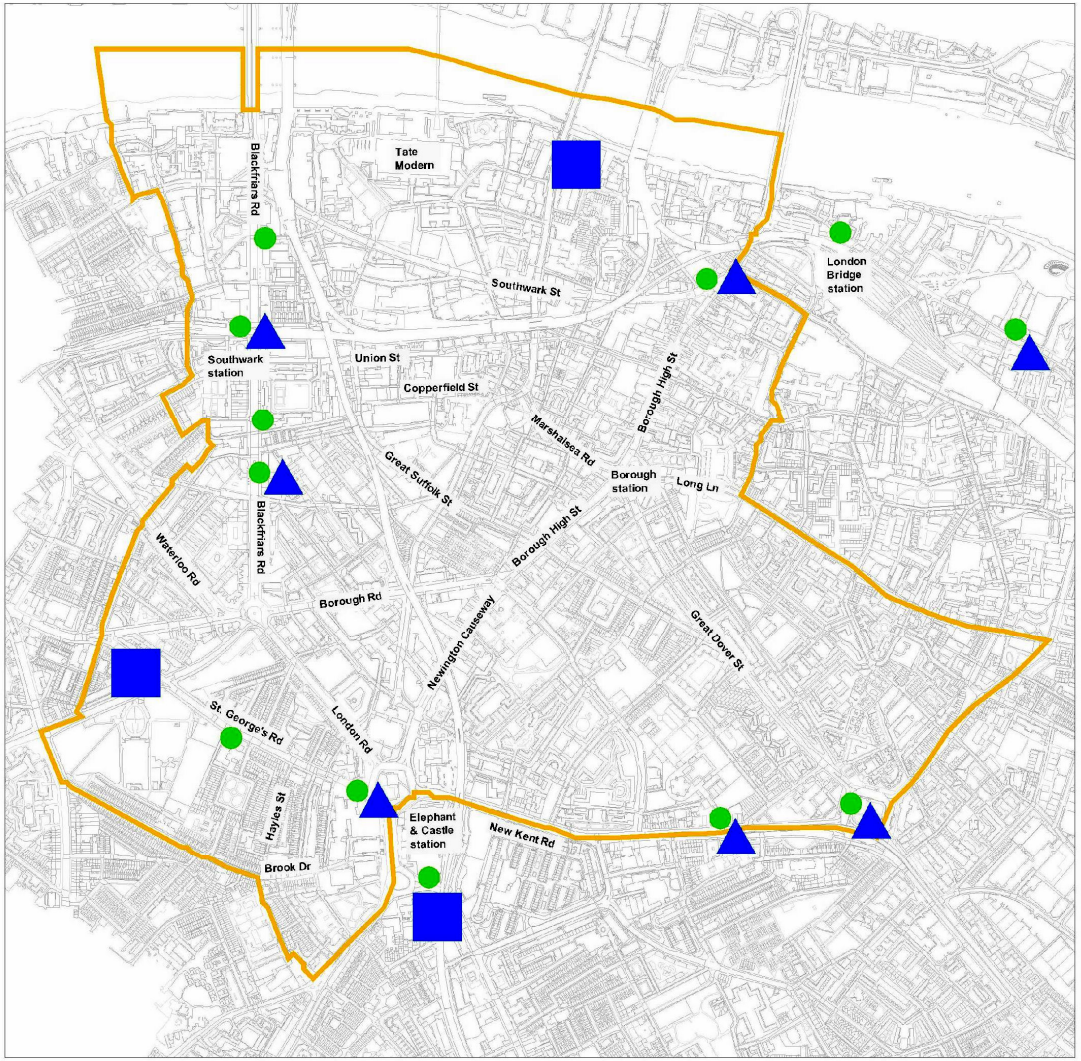
Average cost, households 23-30k

LET'S BRING THE POINT HOME

- April 2004
- Mainly South of borough
- Cost £1million
- Other minor events;

in 2006 & 2007

Local flooding in Borough & Bankside (history)



BOROUGH & BANKSIDE – COMMUNITY COUNCIL BOUNDARY

GROUNDWATER FLOOD INCIDENT (Environment Agency records)

GROUNDWATER FLOOD INCIDENT (Other records)

SURFACE WATER FLOODING INCIDENTS

Future – flooding could get worse!

- Climate Change
  - Wetter winters
  - More intense rainfall
  - Rising water table (winter)
- Increased interaction between flooding sources
- Increased likelihood of flooding
- London clay; little infiltration, more run off

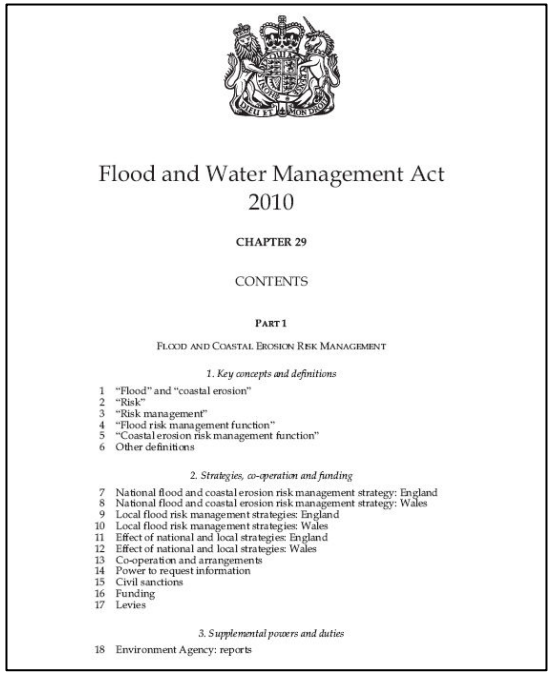
The Response – Legislation

EU Flood Directive (2007/60/EC)

- Flood Risk Regulations 2009

Flood and Water Management Act 2010

- Pitt Review



Flood and Water Management Act 2010

CHAPTER 29

CONTENTS

PART 1

FLOOD AND COASTAL EROSION RISK MANAGEMENT

1. Key concepts and definitions

1 "Flood" and "coastal erosion"
2 "Risk"
3 "Risk management"
4 "Flood risk management function"
5 "Coastal erosion risk management function"
6 Other definitions

2. Strategies, co-operation and funding

7 National flood and coastal erosion risk management strategy: England
8 National flood and coastal erosion risk management strategy: Wales
9 Local flood risk management strategies: England
10 Local flood risk management strategies: Wales
11 Effect of national and local strategies: England
12 Effect of national and local strategies: Wales
13 Co-operation and arrangements
14 Power to request information
15 Civil sanctions
16 Funding
17 Levies

3. Supplemental powers and duties

18 Environment Agency: reports

Legislation – LLFA duties

Southwark is now Lead Local Flood Authority

Responsible for Flood Risk from

- Ordinary water courses
- Surface water
- Ground water

Sewer flooding – Thames Water
Tidal Flooding – Environment Agency
Reservoir Flooding – Owner/Environment Agency

Actions - What have we done?

- Preliminary Flood Risk Assessment
  - Significant flood risk
  - Critical Drainage Areas
  - Consequences of past and future flooding

- Surface Water Management Plan
  - Flooding - sources and mechanisms
  - Investment – reduce likelihood of flooding
  - Community engagement – reduce impact

Local flooding in Borough & Bankside

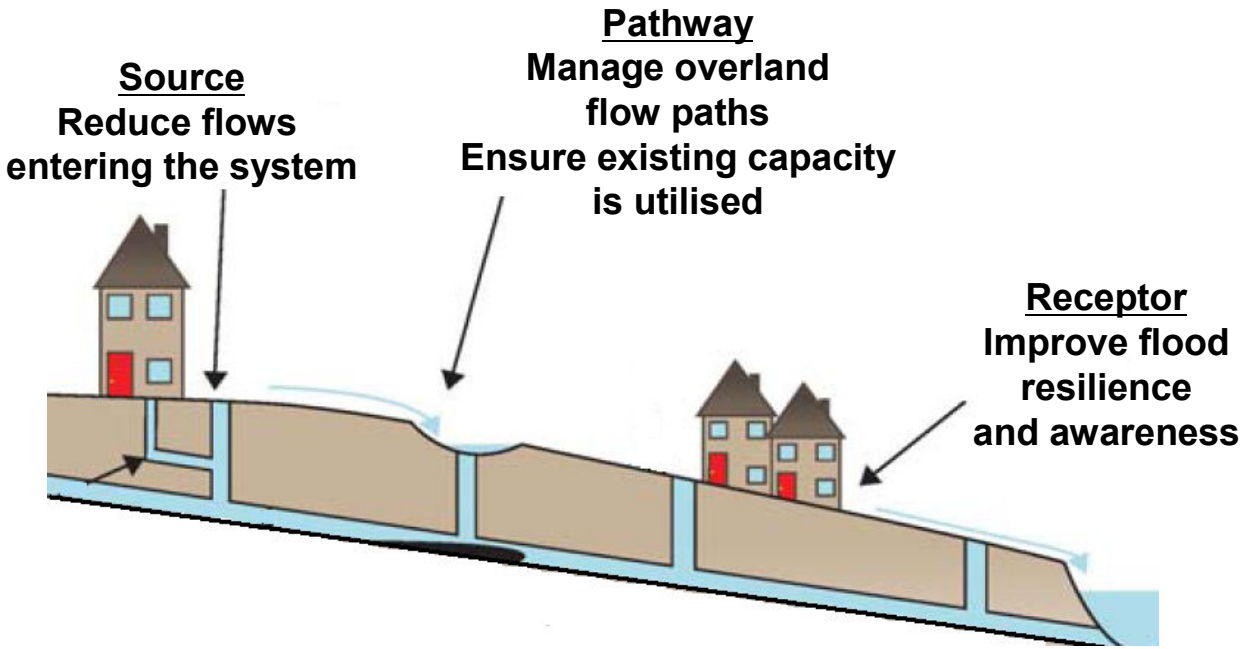
BOROUGH & BANKSIDE – COMMUNITY COUNCIL BOUNDARY

POTENTIAL AREAS OF FLOODING

Actions - What are we doing?

- Set up internal and external partnerships
- Detailed investigations
- Develop flood mitigation solutions
- Source funding and implement
- Improve drainage maintenance
- Engaging the community

Approach – Reducing flood risk



Who?

- The Council
- Specialist consultants
- Working partnerships
- Communities/Individuals

Interventions Ideas

Source - new pervious paving

1. Permeable Block Paving

2. Self-Binding Gravel

3. Reinforced Gravel

Pathway interventions – retrofitting SuDS in streets

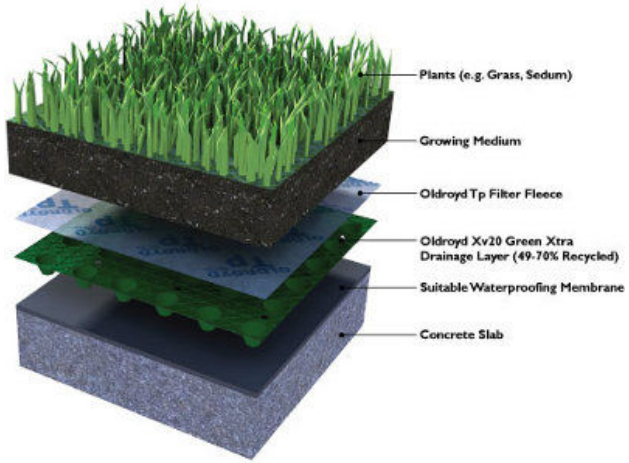
Receptor interventions - rainwater harvesting & green roofs

1. On-site collection system (above)

3. Retro-fit existing roof (above)

2. Waterbutts (below)

4. Layered approach (below)

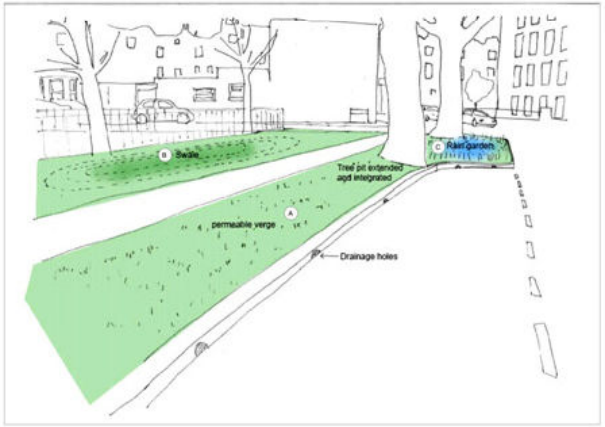


Examples of intervention ideas

A Opportunities to make impermeable surfaces permeable and introduce planting measures

A Permeable gravel path.
B Opportunities to make impermeable surfaces permeable. Opportunities for creating of lawn and tree planting
C Potential for creation of green walls and green roofs.

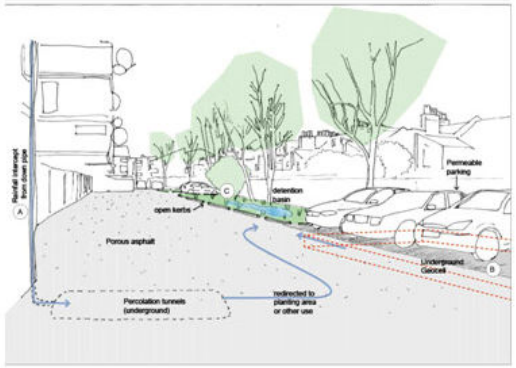
A Opportunities to make impermeable surfaces permeable and introduce planting measures
B Opportunities to create swale for storage capacity
C Opportunities to create builtout as rain garden



A Permeable gravel path
B A number of interventions integrated with geocell system

A Create raised entry treatment and geocell storage
B Reprofile footway to divert runoff
C Make impermeable surfaces permeable

A Rainfall intercept from down pipe to planting area or other use
B Geocell system in car parking
C Local detention basin



Actions - What can you do?

- Individual flood plan

http://publications.environment-agency.gov.uk/PDF/GEHO0709BQPU-E-E.pdf

- Water conservation
- Rain water harvesting
- More greening
- Community Flood Plans (volunteers needed)

Next Steps

- Capture your experiences of flooding
- Incorporate in our evidence base
- Submit ideas to EA for funding
- Initiate detailed consultation
- Develop and implement

Questions ?

For more information on

Flood Risk Management in Southwark

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http://www.southwark.gov.uk/info/100011/transport_and_streets/586/flood_risk_management