Sustainable Drainage/ Integrated Water Management in London

Kevin Reid

Greater London Authority

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Where are we now - policy
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London Plan Policy 5:13

Sustainable Drainage

Development should utilise sustainable urban drainage systems (Sustainable drainage) unless there are practical reasons for not doing so, and should aim to achieve greenfield run-off rates and ensure that surface water run-off is managed as close to its source as possible in line with the following drainage hierarchy:

1 store rainwater for later use
2 use infiltration techniques, such as porous surfaces in non-clay areas
3 attenuate rainwater in ponds or open water features for gradual release
4 attenuate rainwater by storing in tanks or sealed water features for gradual release
5 discharge rainwater direct to a watercourse
6 discharge rainwater to a surface water sewer/drain
7 discharge rainwater to the combined sewer.

Drainage should be designed and implemented in ways that deliver other policy objectives of this Plan, including water use efficiency and quality, biodiversity, amenity and recreation.

National Planning Policy Framework (NPPF)

All new “Major” developments (over 10 dwellings) must be referred to the Lead Local Flood Authority

Effective since April 2015

London Plan Opportunity Areas

Integrated Water Management Strategies for major development locations:

- Vauxhall Nine Elms Battersea
- Old Oak Common

…more to follow

Drain London

Demonstration projects funded such as:

- Green Infrastructure Audits in 10 BIDs
- Green Roofs
- Rain gardens
- Green Walls
- River Restoration
- Stockholm Street Trees

Mayor's Urban Greening Programme

- Mayor's Help A London Park projects
- 100 Pocket parks
- 20 000 new Street Trees
- Big Green Fund
- TfL Green roofs and walls
- 17 ha of Green roof in Central London

Some London Examples

Green roof

Queen Caroline Estate

LB Hammersmith & Fulham

Swale

Variety of SuDS Measures linked to education programmes

SUDS for Schools

10 Schools within LBs Enfield, Barnet & Haringey

Green Roof

Museum of London
City of London

Road “bump-outs”

Burbage Rd

LB Southwark

De-paving

Fentiman Rd

LB Lambeth

Green Roof

London Underground
Ruislip Depot

LB Hillingdon

Green Roof & rainwater harvesting

West Ham Bus Depot

LB Newham

River Restoration

Queensbury Recreation Ground

LB Harrow

Permeable Paving
Islington Town Hall
LB Islington

Green Roof
Centre 404
LB Camden

Green Roof
Belmont St
LB Camden

Road Build Out
Central Hill/Elder Rd
LB Lambeth

Green Wall
Athenaeum Hotel
City of Westminster

Green Roof
Kemp House
City of Westminster

De-paving
Kennington
LB Lambeth

Green Wall
Rubens Hotel
City of Westminster

Green Wall
Tooley St
LB Southwark

Chinbrook Meadows
LB Lewisham

River Restoration

Sutcliffe Park
LB Lewisham

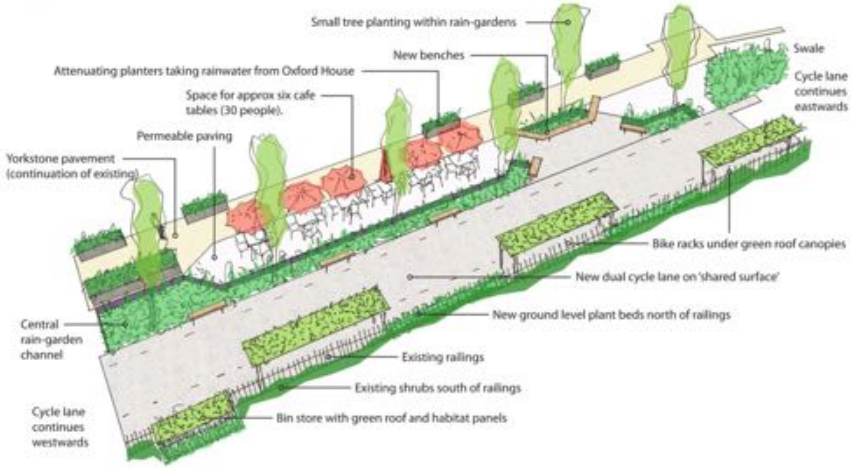
Raingarden

Renfrew Close
Beckton

LB Newham

Mayes Brook Park

LB Barking & Dagenham



Derbyshire Street Pocket Park

Bethnal Green

LB Tower Hamlets

Rainwater Harvesting

Gainsborough Primary School

LB Hackney

What Next ?

Drain London

Part funding 5 retrofit sustainable drainage projects:

- Priory Rd, Hornsey: LB Haringey
- Alma Road, Ponders End: LB Enfield
- Australia Rd, LB Hammersmith & Fulham
- Lost Effra, LB Southwark & Lambeth
- Climate Proof Housing, LB Hammersmith & Fulham

London Sustainable Drainage Action Plan

- 25 year plan to increase the use of sustainable drainage across London
- Identify where other works already planned & integrate sustainable drainage measures
- Produced by GLA with advice and support from TW, EA & London boroughs
- Set out about 50 actions
- Consultation Autumn 2015, final Plan 2016

Thames Water

- 20 for 20 programme
- Thames Water funding 2015-2020
- Projects that disconnect surface water from the foul or combined sewer system
- Greenstreet projects in Counters Creek catchment

New hard surfacing will continue. . .

. . . but it can still be permeable

Permeable hard surfaces can allow up to 70 000 litres/hour/m^2 to infiltrate, whilst still taking up to 80 ton vehicles