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Retrofitting SuDS in London

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18/04/18



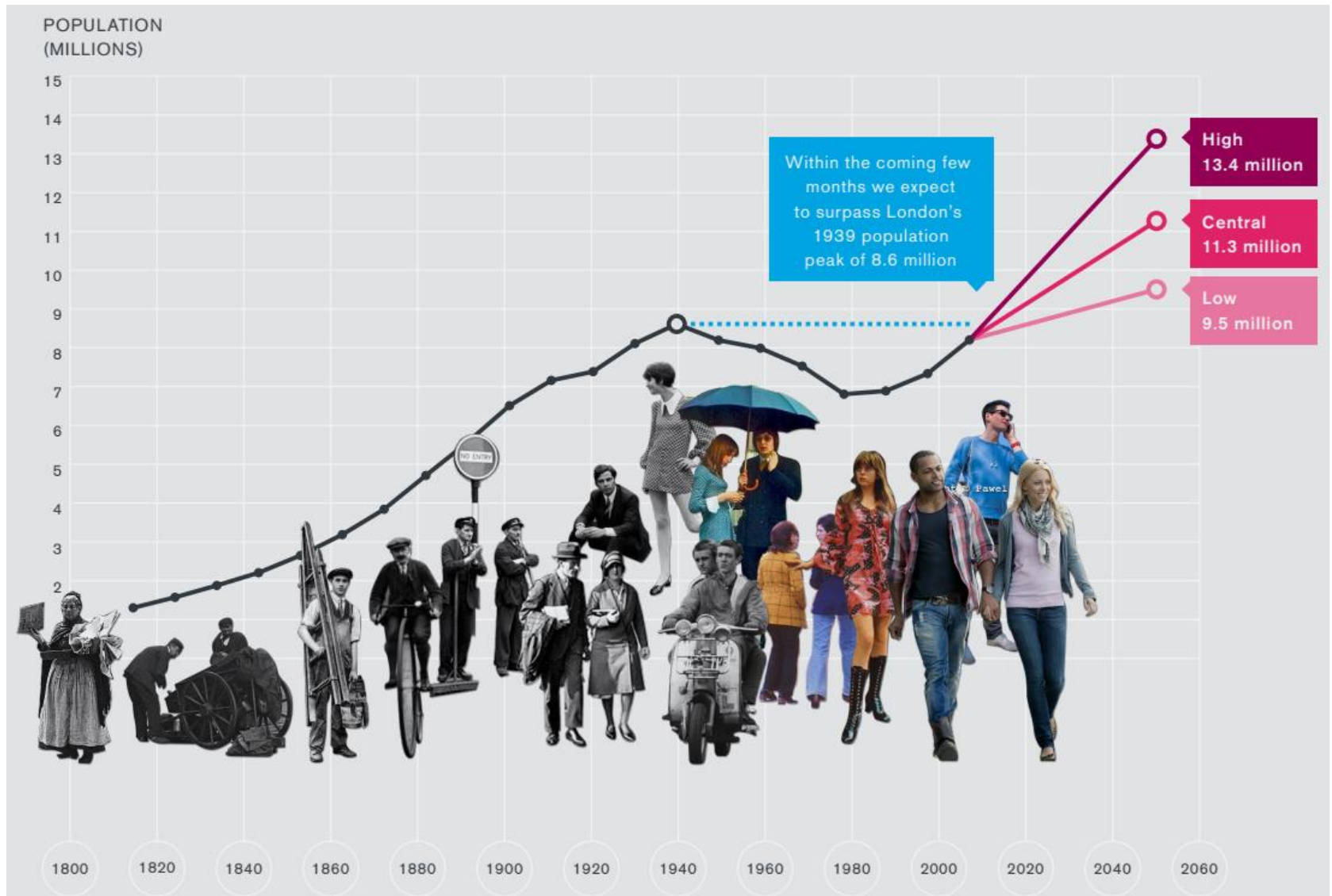
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*Why do we need SuDS
in London?*

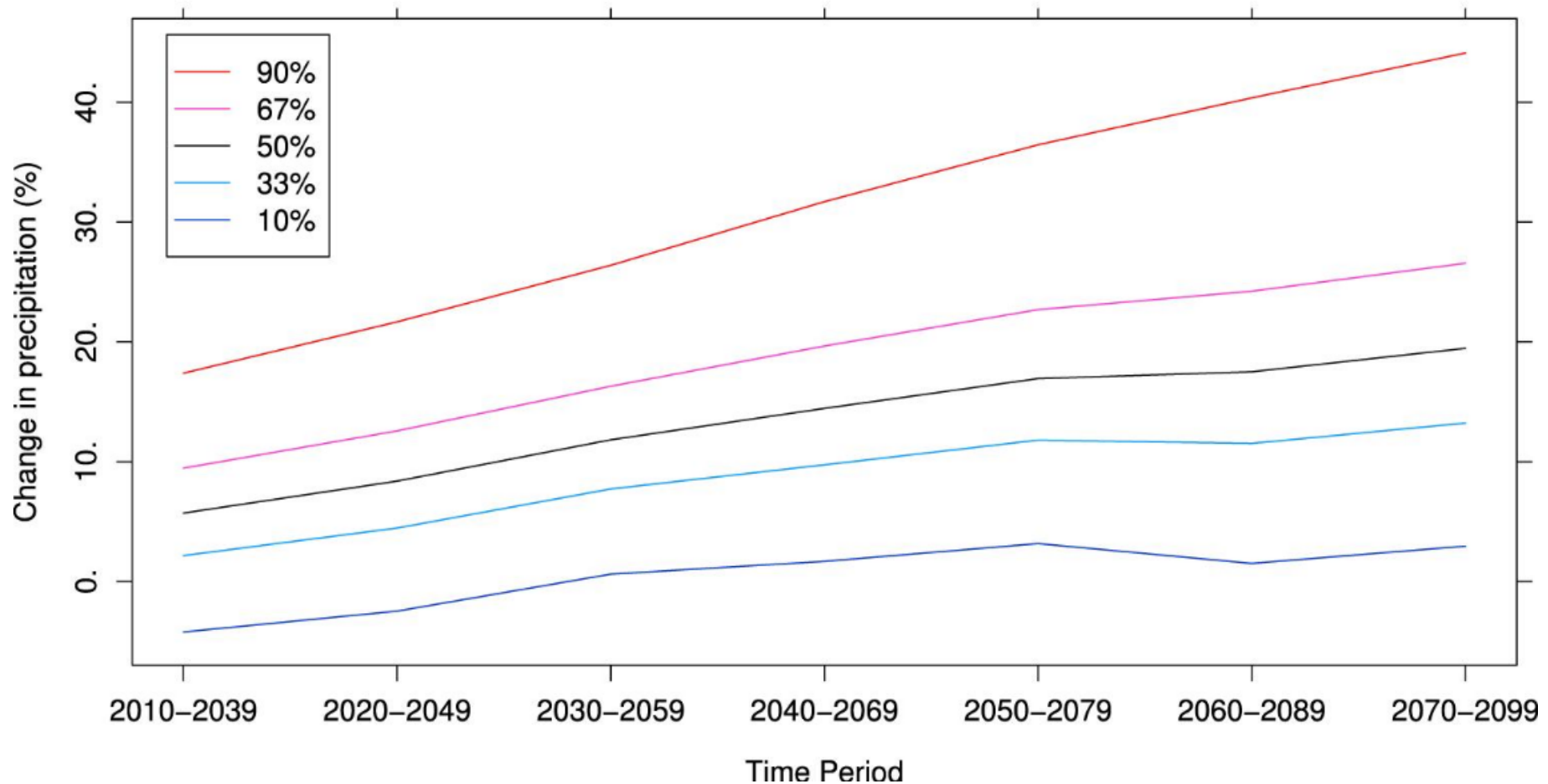


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Growing Population



MAYOR OF LONDON Climate Change



MAYOR OF LONDON Surface Water Flooding



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Water Quality



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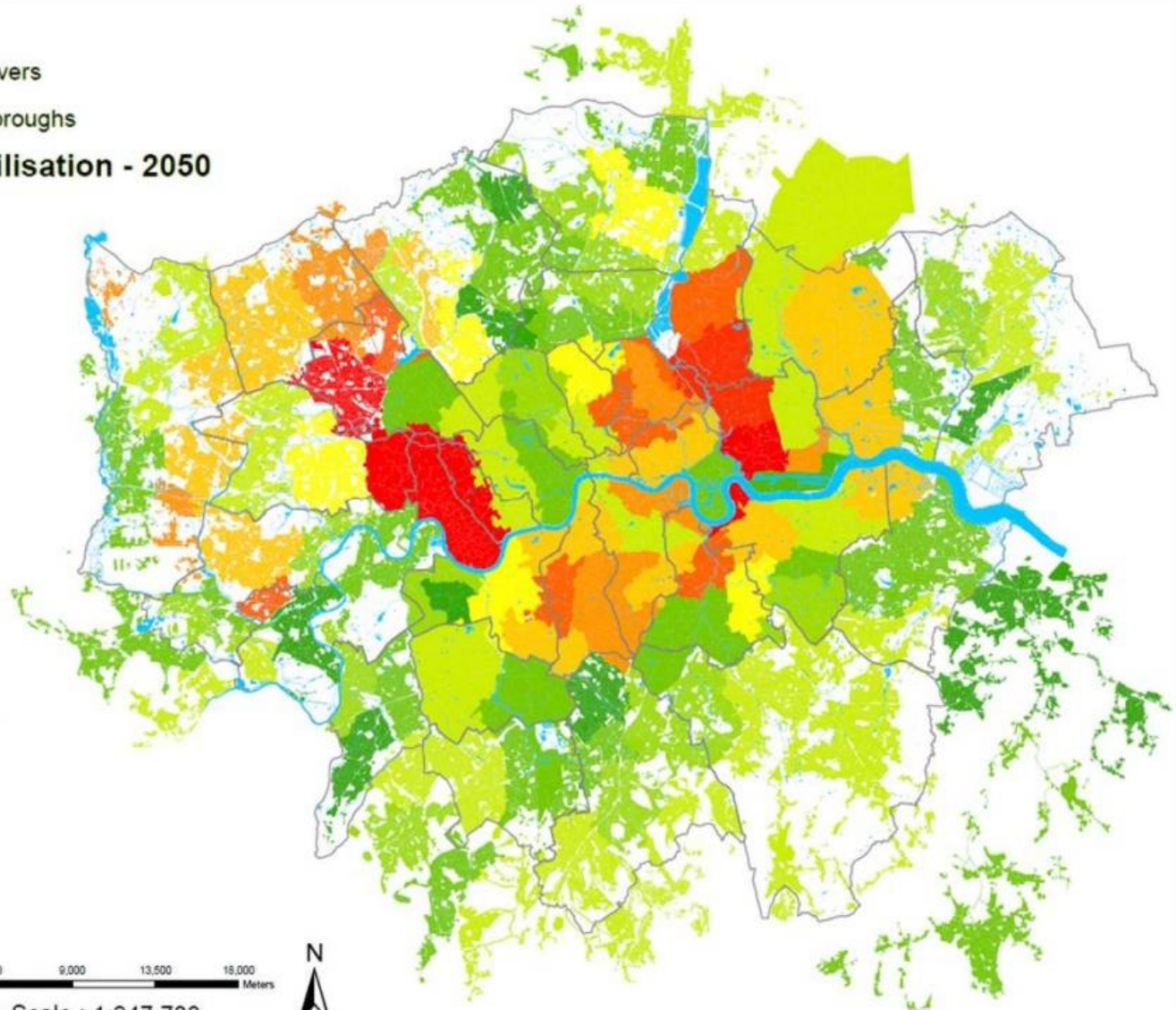
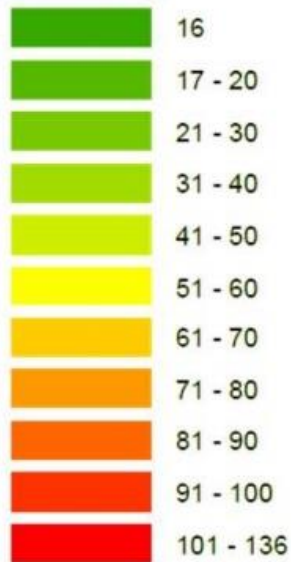
Sewer Capacity Issues

Legend



Flow Capacity Utilisation - 2050

Percentage



Thames Water
Map



0 2,250 4,500 9,000 13,500 18,000 Meters

Current Scale : 1:247,738



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“THE GREENEST GLOBAL CITY”



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***What is the Mayor of
London doing?***



MAYOR OF LONDON THE LONDON PLAN

THE LONDON PLAN

THE SPATIAL DEVELOPMENT
STRATEGY FOR GREATER LONDON
DRAFT FOR PUBLIC CONSULTATION

DECEMBER 2017

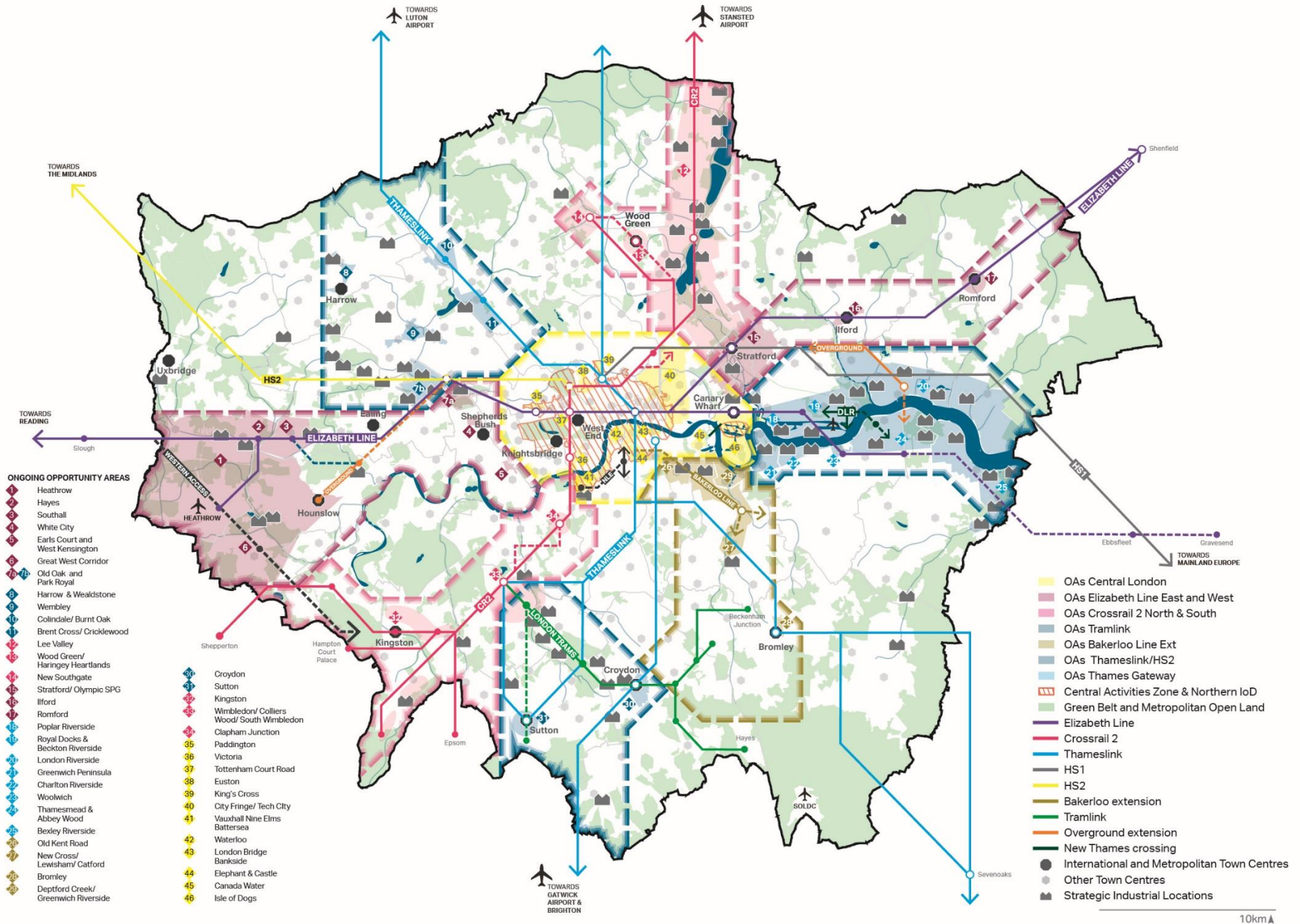


The London Plan

Public Consultation: Jan -Mar 2018
(now closed)

Examination in public: Autumn 2018

Publication (adoption): Autumn 2019



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KEY LONDON PLAN POLICIES

- G1 – Green Infrastructure
- G5 – Urban greening
- G6 – Biodiversity and access to nature
- SI5 – Water Infrastructure
- SI13 – Sustainable drainage

Chapter 8

Chapter 9



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LONDON PLAN SuDS POLICY

SI 13 Sustainable Drainage

- B. Development proposals 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) Rainwater harvesting (including a combination of green and blue roofs)*
 - 2) Infiltration techniques and green roofs*
 - 3) Rainwater attenuation in open water features for gradual release*
 - 4) Rainwater discharge direct to a watercourse (unless not appropriate)*
 - 5) Rainwater attenuation above ground (including blue roofs)*
 - 6) Rainwater attenuation below ground*
 - 7) Rainwater discharge to a surface water sewer or drain*
 - 8) Rainwater discharge to a combined sewer*
- C. Development proposals for impermeable paving should be refused where appropriate, including on small surfaces such as front gardens and driveways*
- D. Drainage should be designed and implemented in ways that address issues of water use efficiency, river water quality, biodiversity, amenity and recreation*

MAYOR OF LONDON LONDON ENVIRONMENT STRATEGY



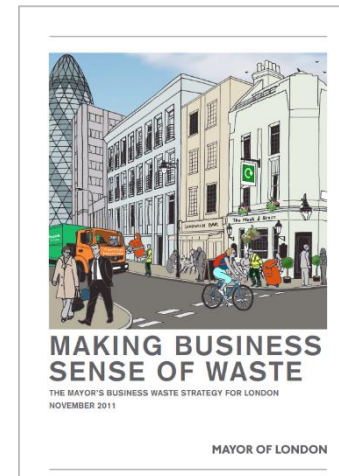
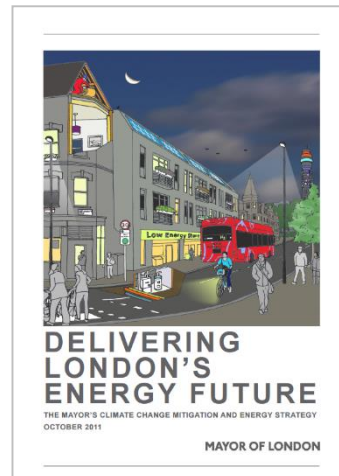
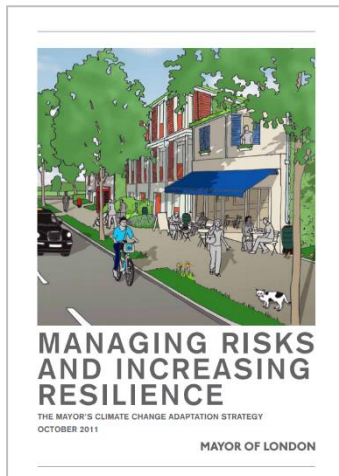
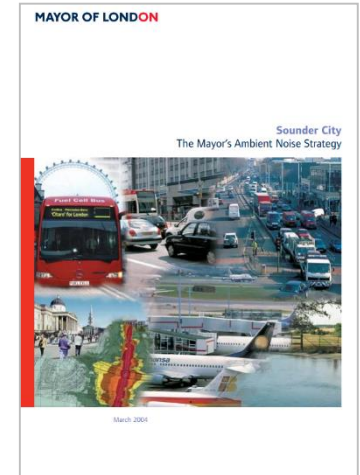
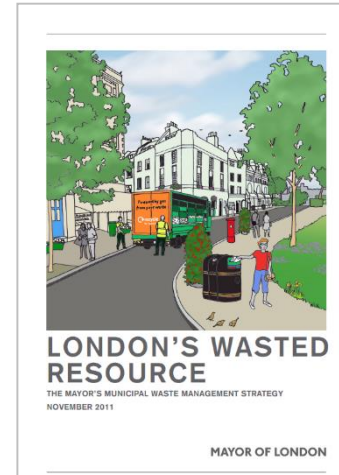
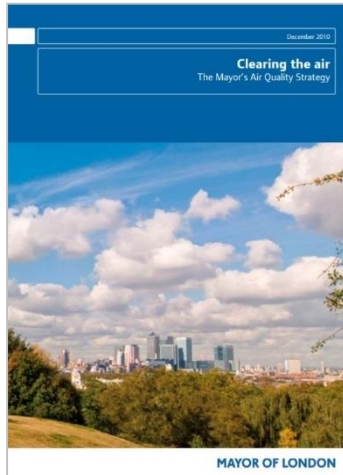
The London Environment Strategy

Consultation
August - November 2017

Publication due 2018

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PREVIOUS ENVIRONMENT STRATEGIES FOR LONDON



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WHAT IS NEW?

- London's first integrated environment strategy
- Ambition includes:
 - Zero carbon city
 - Zero waste city
 - PM 2.5 targets for air quality
 - Increase green cover to 50%
 - Action plans for fuel poverty and solar
 - New funding to catalyse action
 - New businesses cases for energy efficiency and green infrastructure



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*So that's for New Build but
what about the other 99% of
London, Retrofit?*



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LONDON SUSTAINABLE DRAINAGE ACTION PLAN

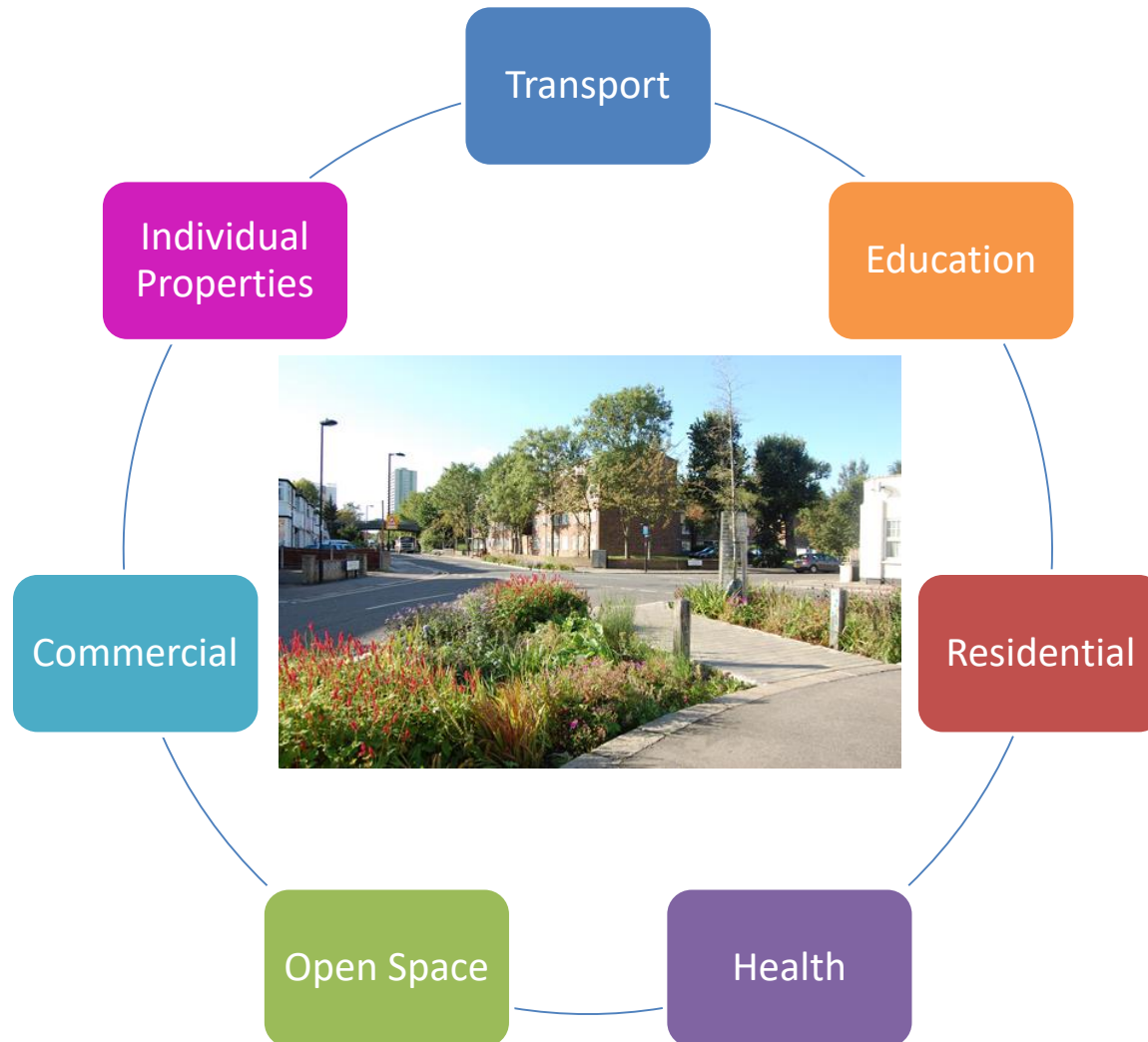


To deliver a Step Change in sustainable rainwater management in London over next 20 years

Focus is on **retrofit**

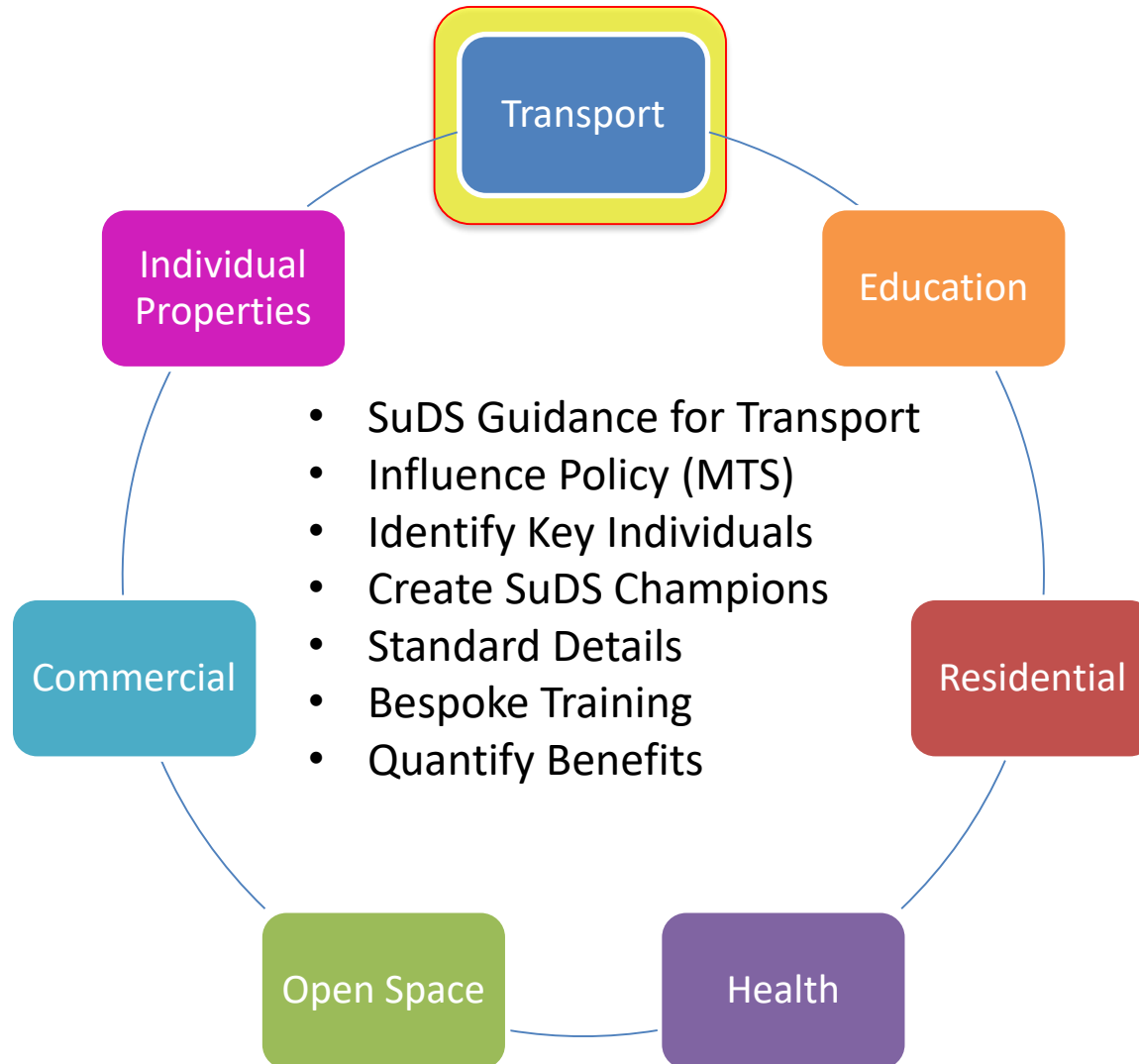
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LONDON SUSTAINABLE DRAINAGE ACTION PLAN



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EXAMPLE OF LSDAP SECTOR BASED APPROACH



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Mayors Transport Strategy (MTS)

Publication March 2018

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Healthy Streets

policies and strategies to encourage modal shift and enhance environment

Policy 8

Protect and enhance GI in existing transport estate

Proposal 44

5ha of London's transport network catchment altered per year to drain to SuDS from

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THERE IS POTENTIAL EVERYWHERE!

Relining your flat roof?

- Why not make it a green roof?
(it will also increase the lifespan)



Resurfacing your carpark / footpath / driveway?

- Why not use a permeable material?



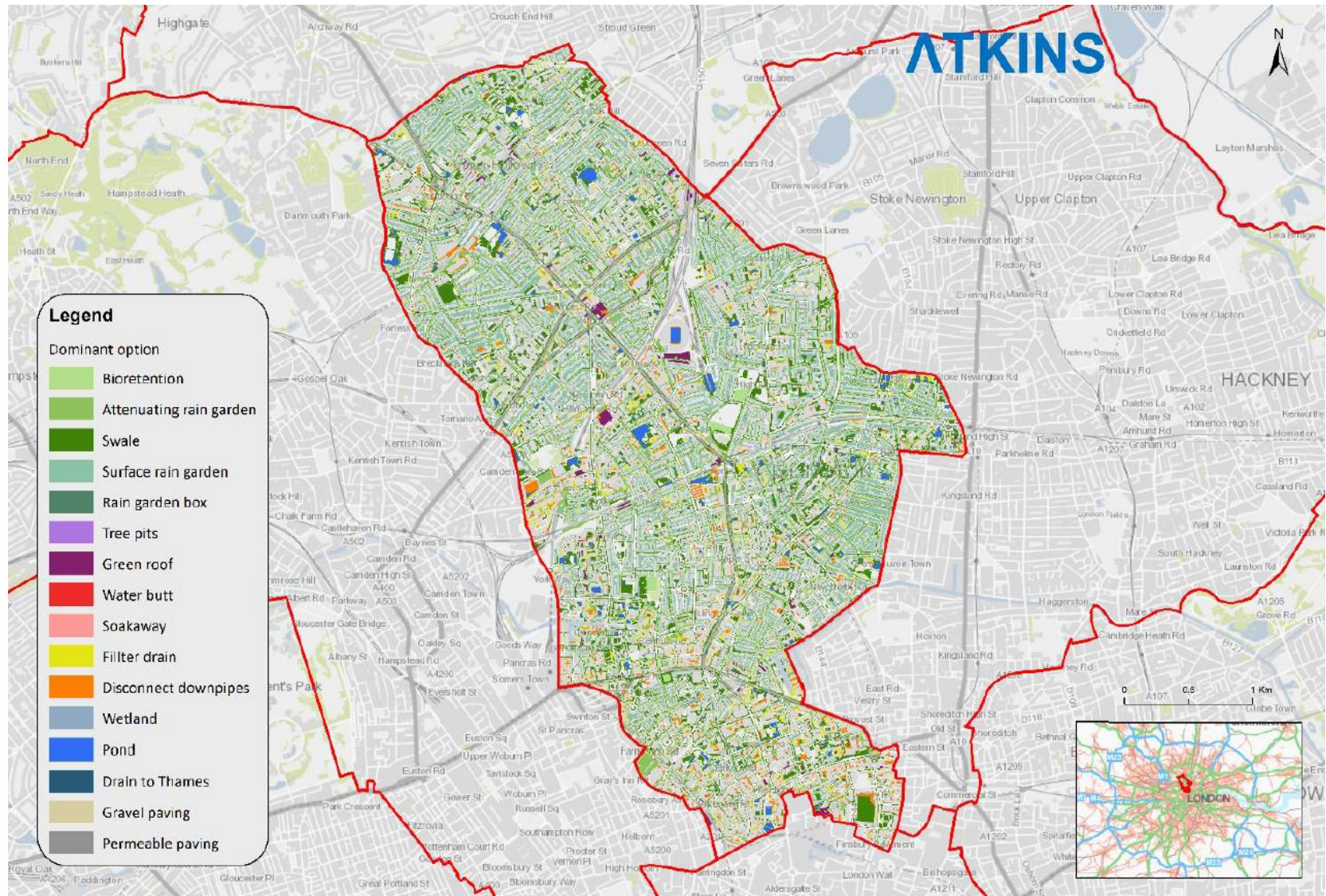
Has your building got external downpipes?

- Why not disconnect and drain to the landscaping?

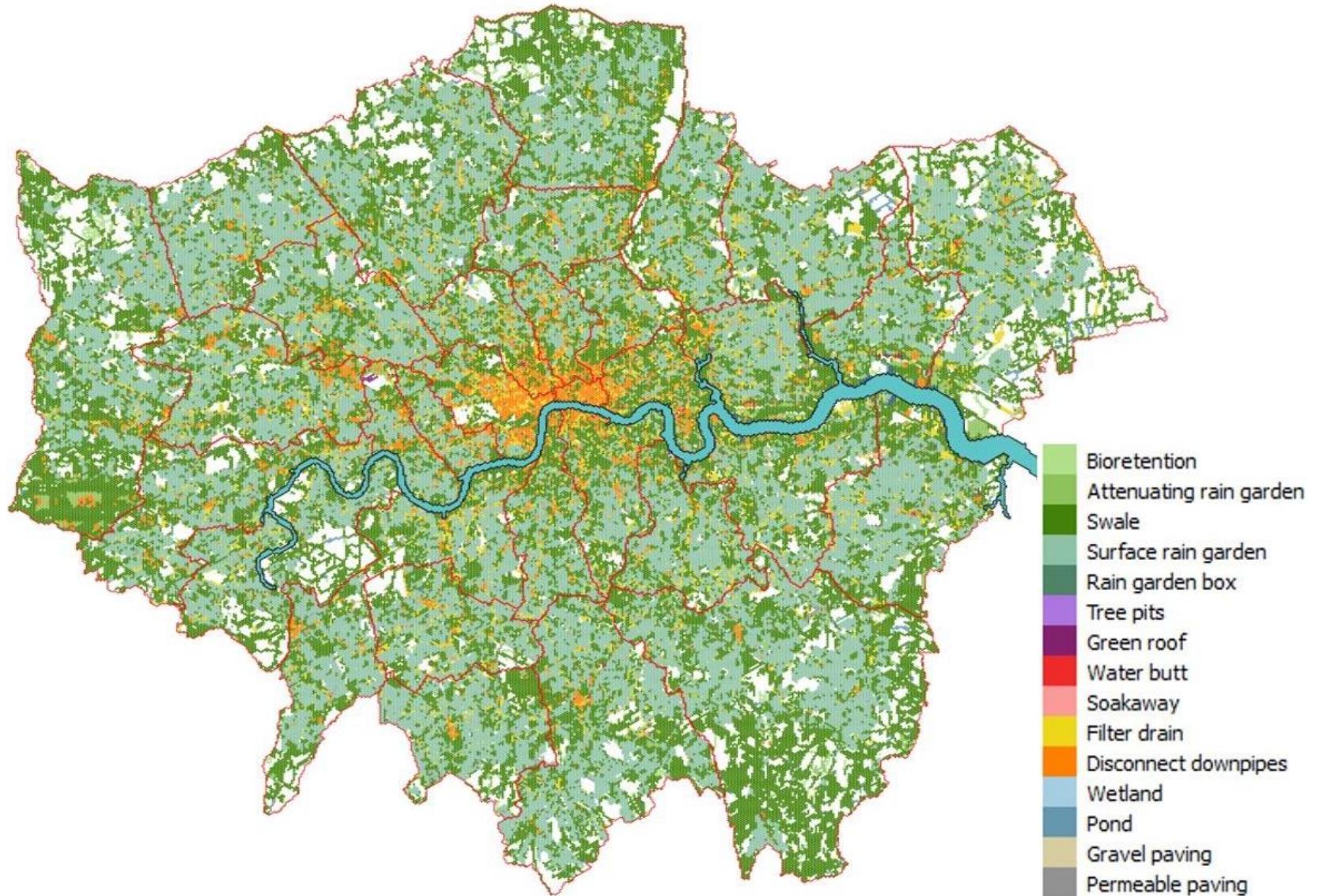


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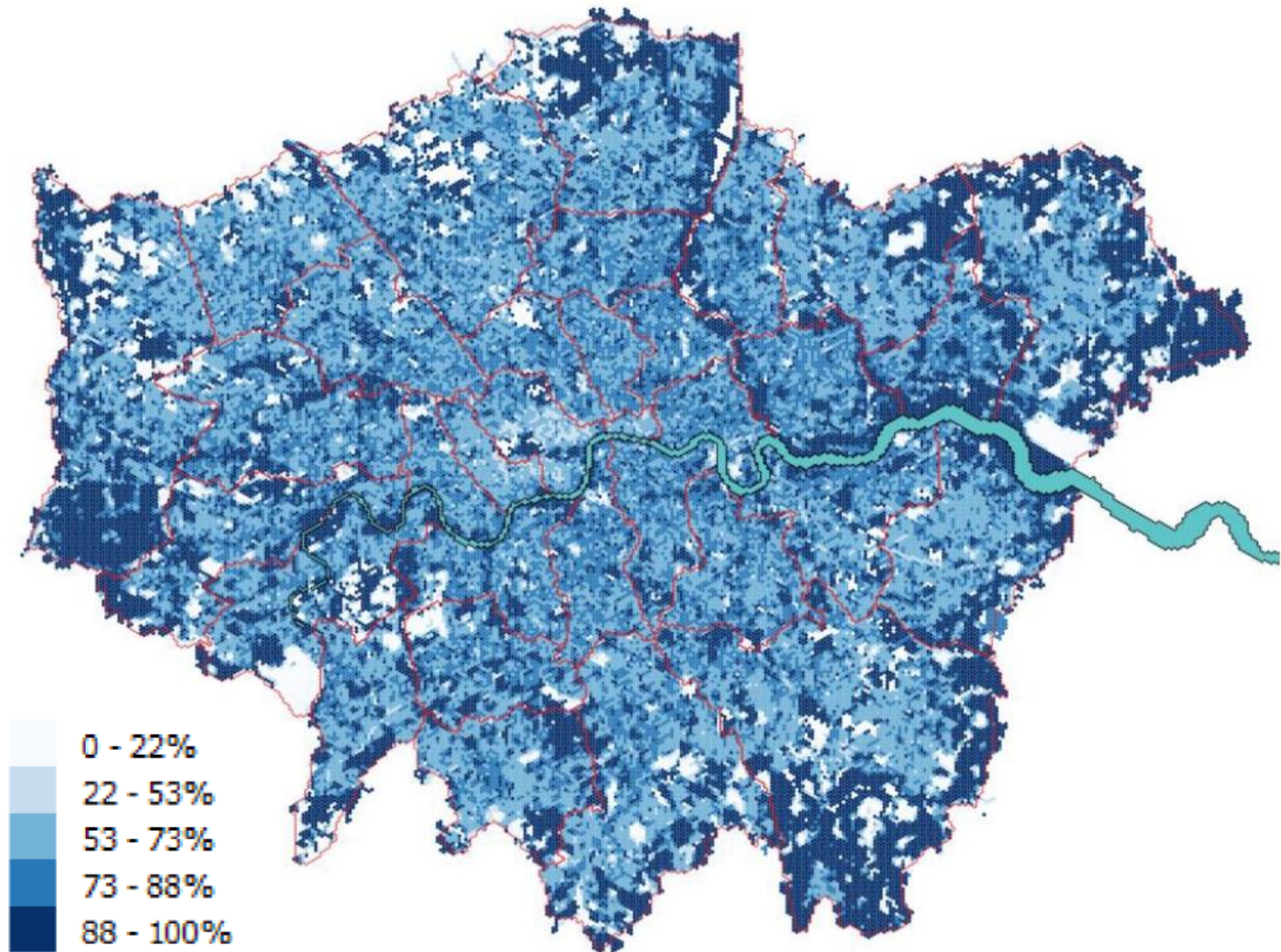
SUDS OPPORTUNITY MAPPING



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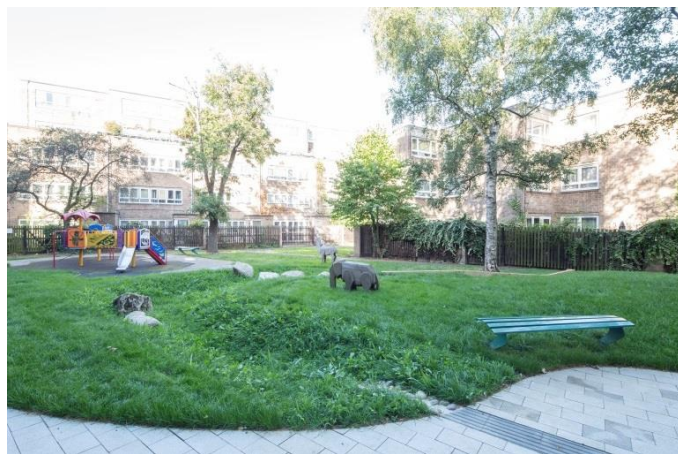
MAYOR OF LONDON SUDS OPPORTUNITY MAPPING





Highway





Housing



Urban Regeneration



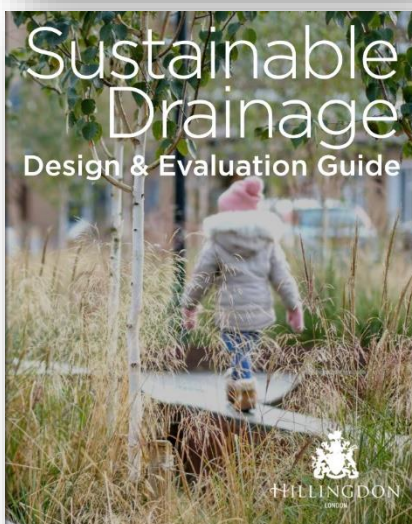
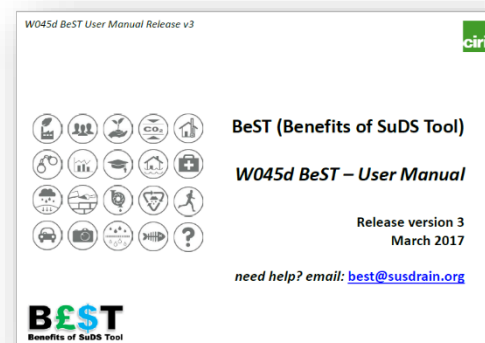
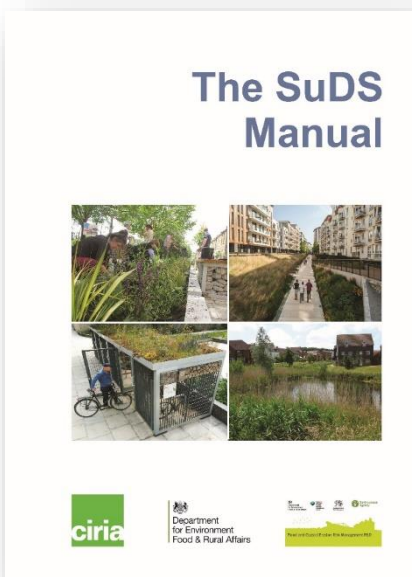
MAYOR OF LONDON COMMON 'ISSUES'

- Utilities
- Ground Conditions
- Conflicting uses
- Cost (£ \$ €)



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USEFUL SOURCES OF INFORMATION



Useful Links:

CIRIA Susdrain - www.susdrain.org

GLA - www.london.gov.uk/what-we-do/environment

Climate Proofing Housing Landscapes (Groundwork) - www.urbanclimateproofing.london

SuDS Design & Evaluation Guide - <http://www.sudsguide.uk>

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Thank you

George Warren

Greater London Authority

Project Manager for the London Sustainable Drainage Action Plan

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Images courtesy of: RBA, TfL, ODA, Groundwork, CIRIA, and the London Boroughs of Enfield, Haringey, Harrow, Lambeth, Tower Hamlets & Hammersmith & Fulham,