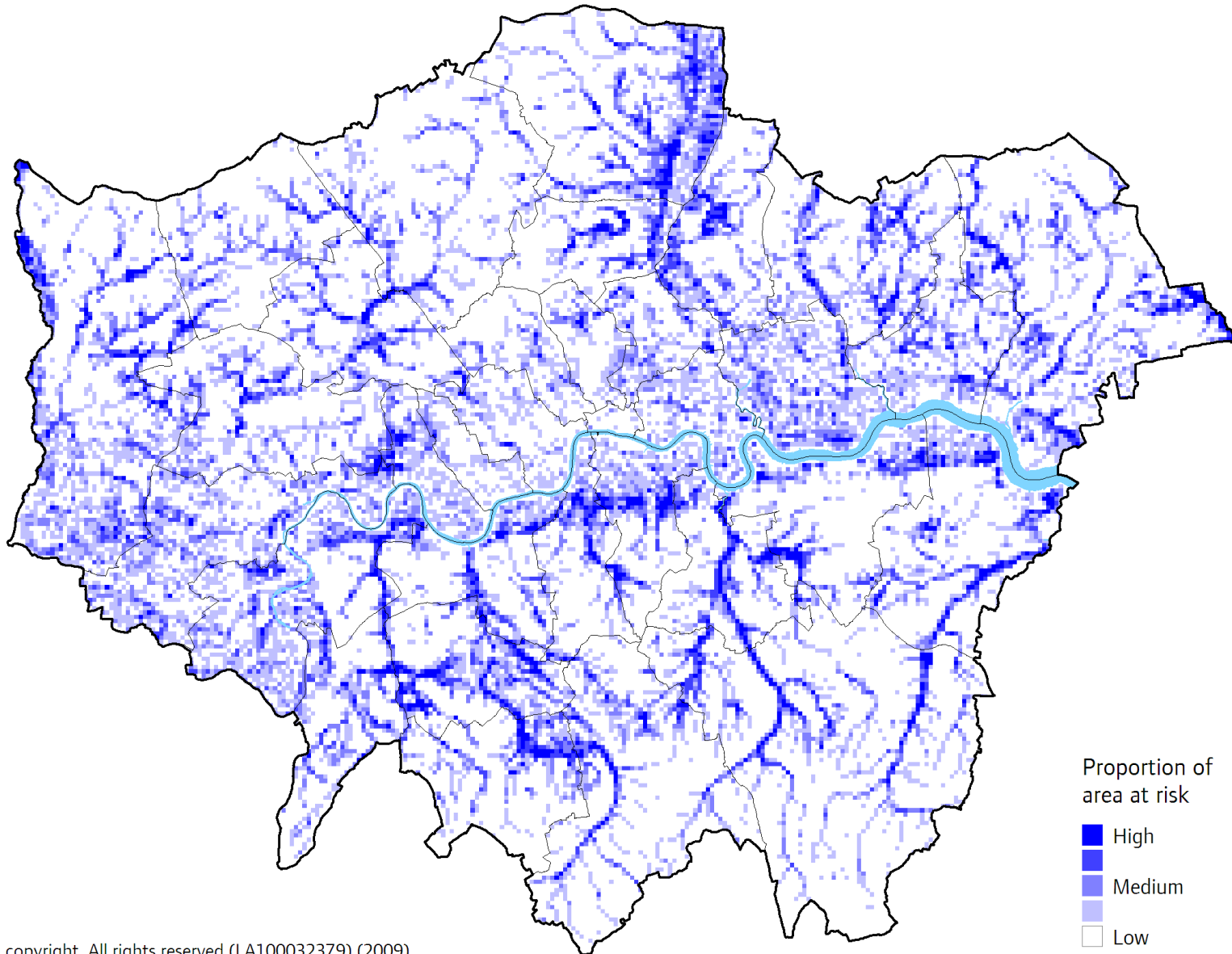


# DRAIN LONDON



# Drain London : case study

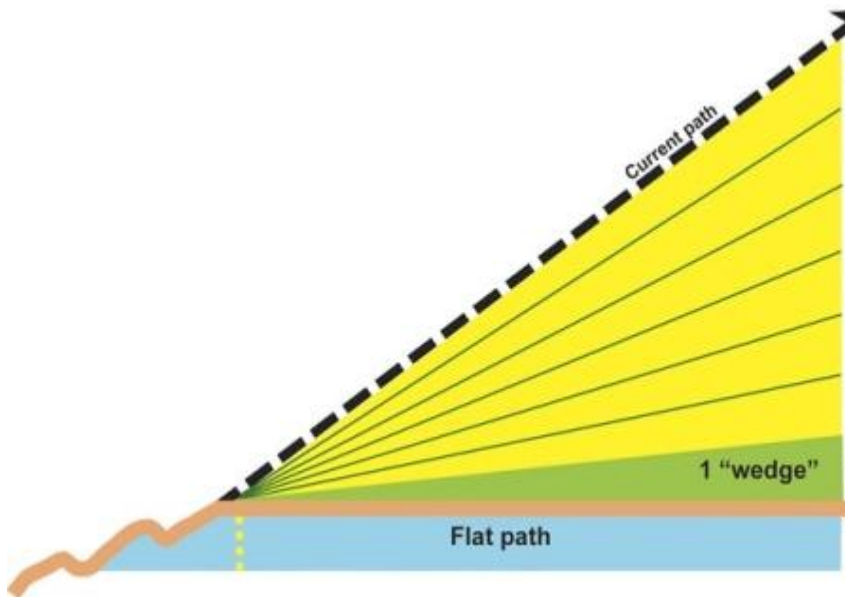


# Why are still planning to adapt ?

- a) No agreed 'vision'...in many instances, we haven't defined what is an 'acceptable level of risk', or the mechanism to define it.
- b) ....and hence there is no 'roadmap' to get there.
- c) We are still working in silos.
- d) We are failing to present our case in the cost-benefit analysis.

# Learning from mitigation...

Princeton 'seven wedges' approach

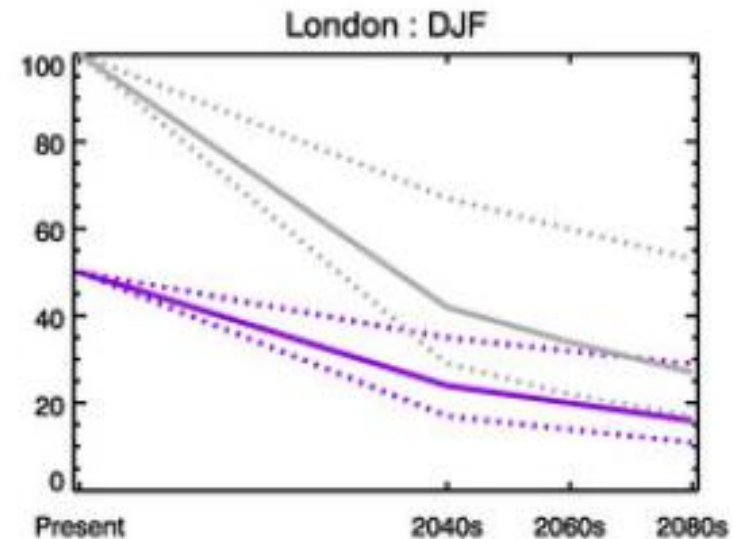
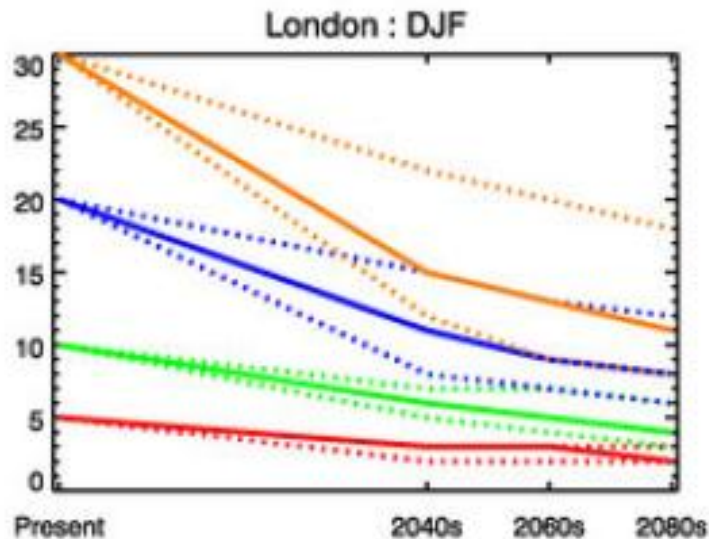


- IPCC defined critical threshold – 2°C
  - National targets
  - Sectoral targets
  - Roadmap
  - Innovation, incentivisation and delivery

# What is an acceptable level of risk ?

- 'no worse than today' ??

Return periods for extreme rainfall are likely to fall dramatically



Source : Ofwat (July 2010). Changes in the frequency of extreme rainfall for selected towns and cities. [http://www.ofwat.gov.uk/sustainability/climatechange/rpt\\_com\\_met\\_rainfall.pdf](http://www.ofwat.gov.uk/sustainability/climatechange/rpt_com_met_rainfall.pdf)



# Defining alternatives – stage 1

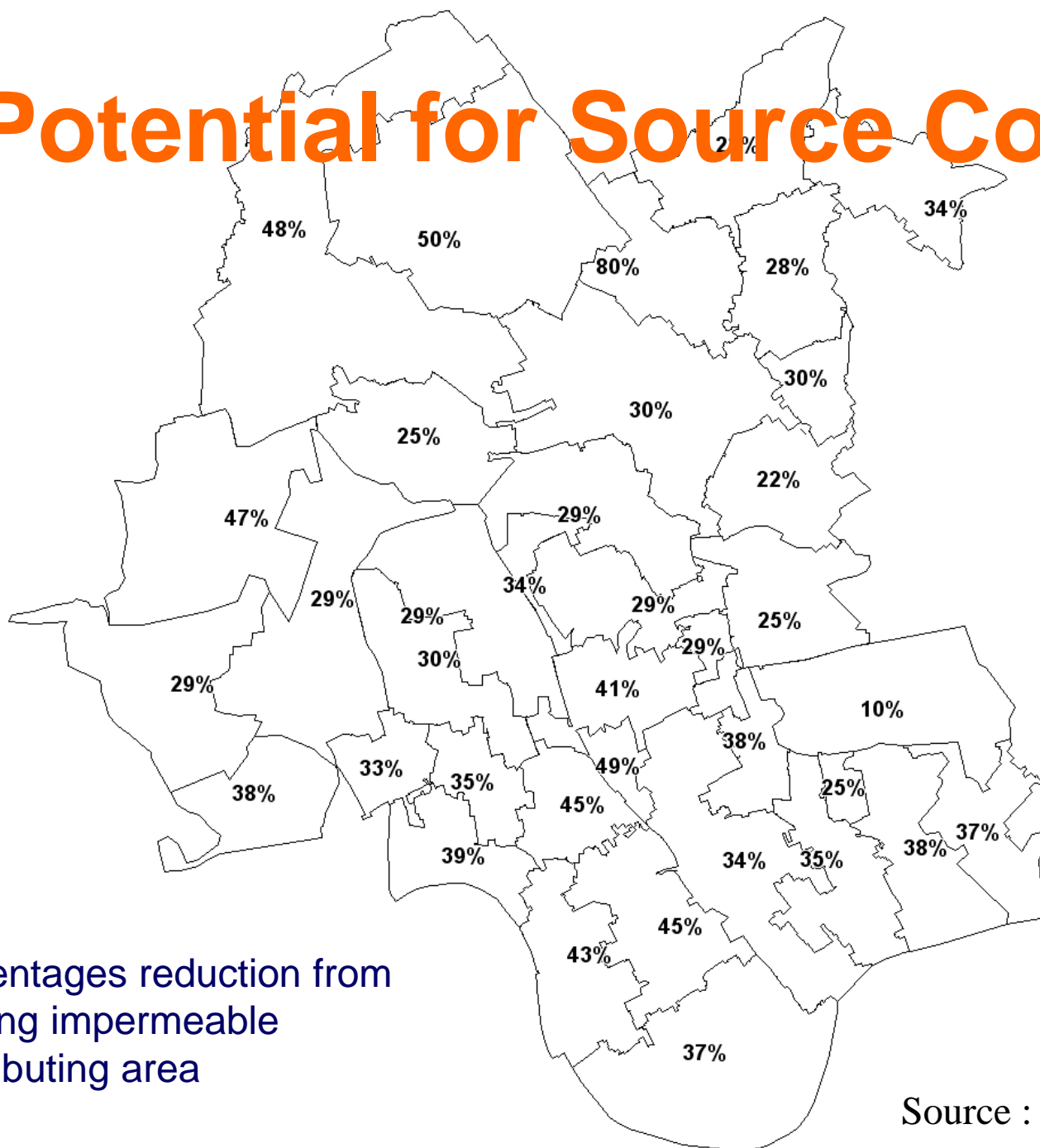
What are the different options to realising the dream ?

- Piped solutions – relieve pinch points and increase capacity of drainage network
- Source control solutions – ‘slow water’
- Resilience solutions - Change our tolerance of flooding

# Realising the 'dream' – stage 2

- Understand limitations of each option
  - Applicability, exceedances
- Compare costs and benefits
  - Include wider benefits of multifunctional solutions
  - How do we monetise the benefits ?
- Optimise portfolio of measures
  - Seek 'win-win' and 'no regrets' options first
  - Identify where incremental changes can be made as part of systematic maintenance to minimise cost
  - Combine into a flexible 'adaptive pathway'

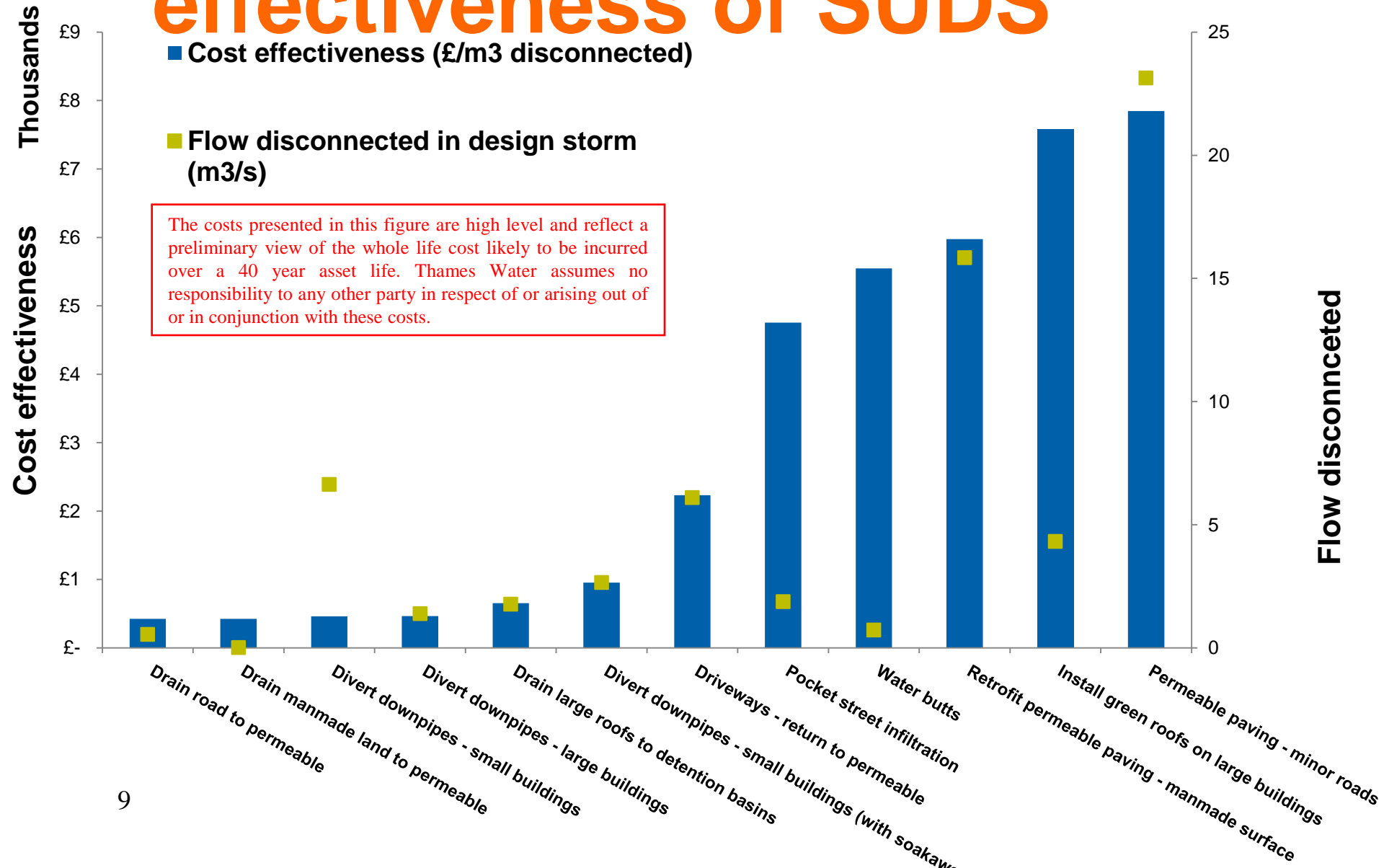
# Potential for Source Control



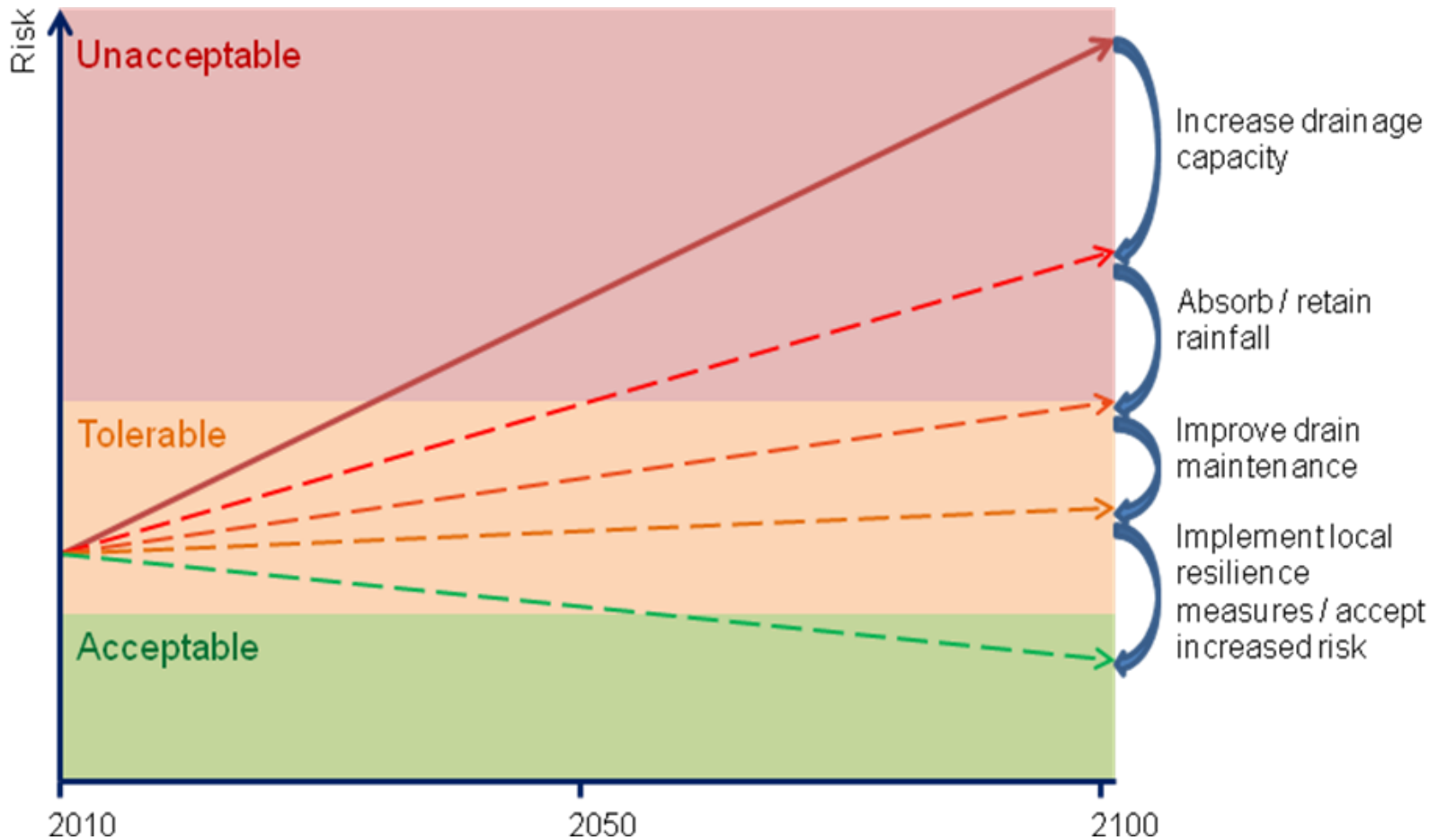
Percentages reduction from existing impermeable contributing area



# Early view of cost and effectiveness of SUDS



# Closing the 'adaptation gap'



# Thank you

[alex.nickson@london.gov.uk](mailto:alex.nickson@london.gov.uk)