

# Climate resilience and energy efficiency in London.



Presentation to CIF 2012 Partnership Forum 07.11.12

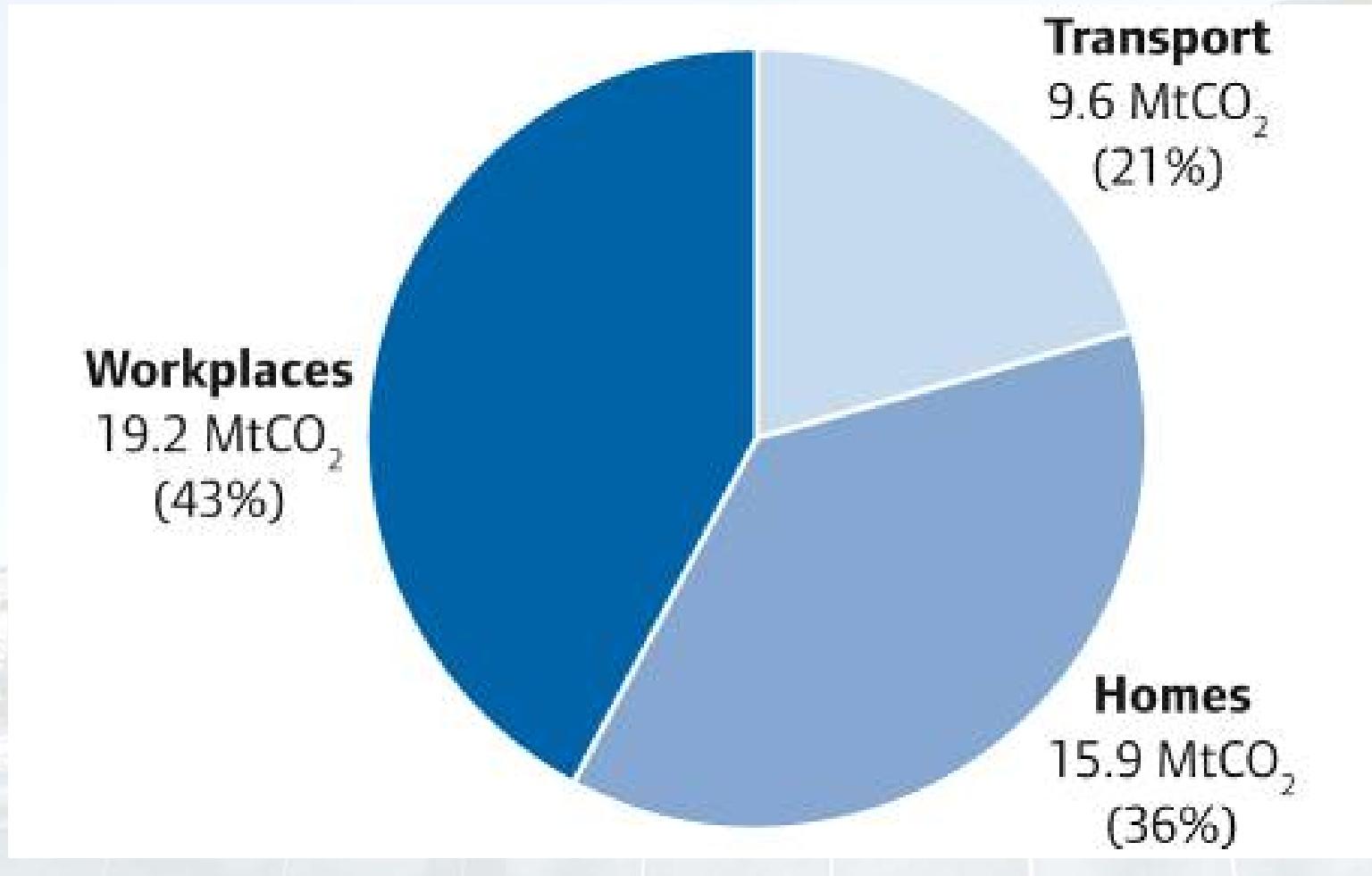
Alex Nickson, Policy and programmes manager, climate change adaptation and water

GREATER LONDON AUTHORITY

# Welcome to London

- Area: 1,570km<sup>2</sup> (607 sq. miles)
- Population: 8.1m rising to over 9m by 2030
- Governed by Mayor Boris Johnson
- 33 Boroughs
- World financial centre
- London generates 21% of UK's GVA.

# London's current CO<sub>2</sub> emissions



Source: London Emissions and Greenhouse Gas Inventory (2008)

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# London's CO<sub>2</sub> targets



Targets to reduce CO<sub>2</sub> emissions on 1990 levels  
by.....

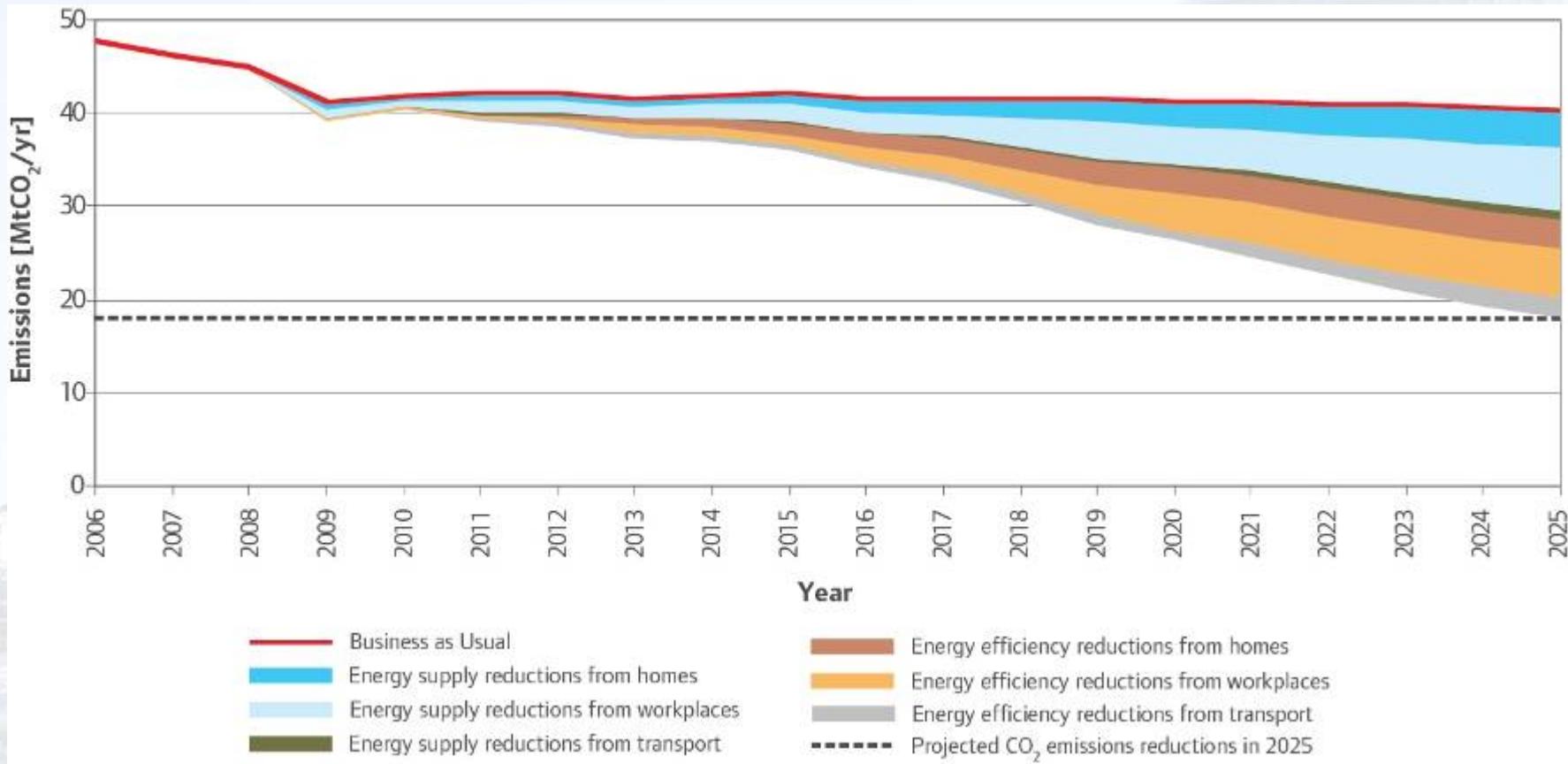
**20% by 2015**

**38% by 2020**

**60% by 2025**

**80% by 2050**

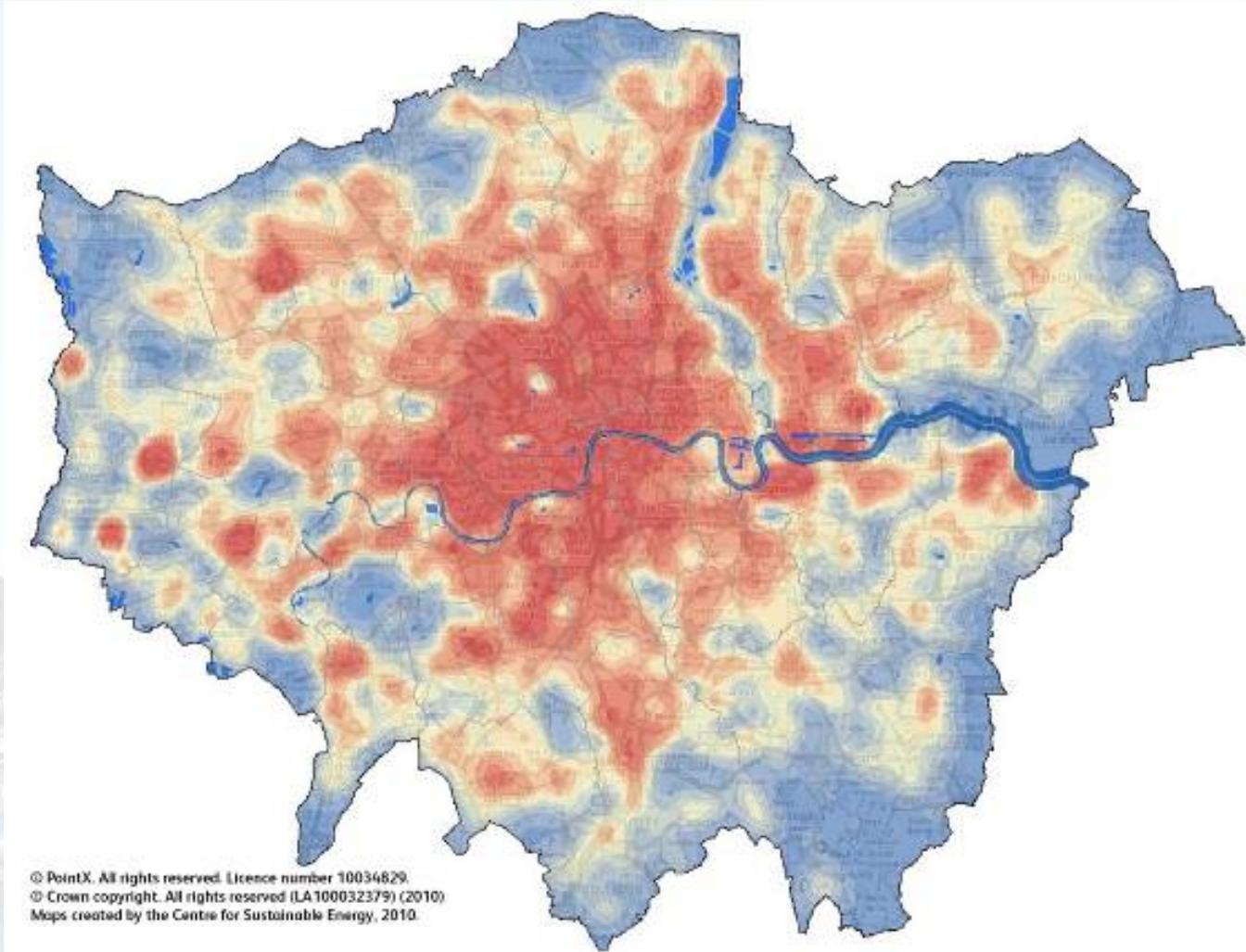
# Achieving a 60% reduction by 2025



# How are we going to achieve this ?

1. Enable the transition to a low-carbon economy
2. Supply 25% decentralised energy supply by 2025
3. Improve home energy and water efficiency by 2030
4. Retrofit 40% of public sector buildings by 2025
5. Modal shift to CO<sub>2</sub>-efficient forms of transport
6. Ensure all new development is very energy efficient

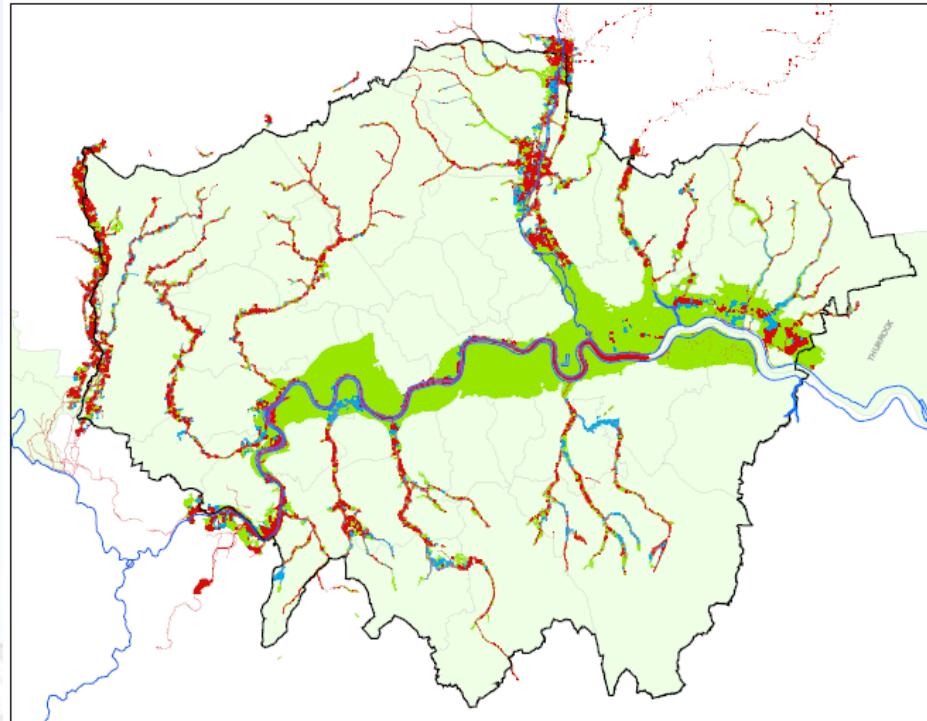
# London Heat Map



# Climate vulnerability in London

- We are not very well adapted to our existing climate
- In the future, even the average weather is likely to present challenges to our current ability to cope
- Early action today will not only manage today's risks, but save money, create jobs, attract and retain investment and improve the quality of life in the city.
- Some changes will take generations to implement and need to be started now to be ready when needed.

# Managing flood risk

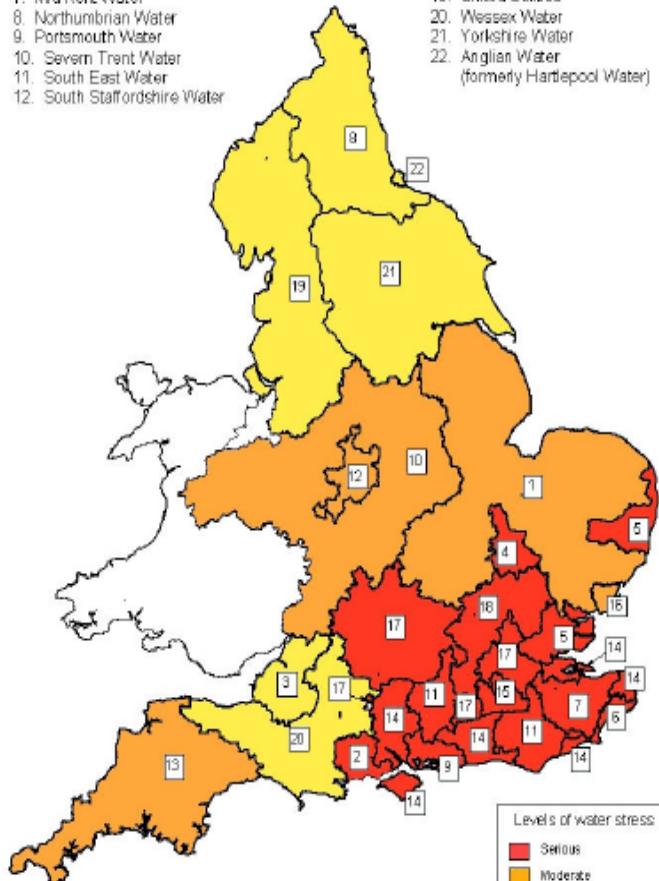


	Low (0.1% - 0.5%)	Tidal and fluvial flood risk. Source: Environment Agency
	Moderate (0.5% - 1.3%)	
	Significant (>1.3%)	

- Mapped flood risk for all flood sources
- Prioritised strategic and local assets & communities
- Working with Business Improvement Districts and communities.
- Looking at how to extend the life of our drains using green infrastructure

# Balancing supply & demand for water

- |   |  |
|---|--|
| 1. Anglian Water                        | 13. South West Water                             |
| 2. Bournemouth and West Hampshire Water | 14. Southern Water                               |
| 3. Bristol Water                        | 15. Sutton and East Surrey Water                 |
| 4. Cambridge Water                      | 16. Tendring Hundred Water                       |
| 5. Essex and Suffolk Water              | 17. Thames Water                                 |
| 6. Folkestone and Dover Water           | 18. Three Valleys Water                          |
| 7. Mid Kent Water                       | 19. United Utilities                             |
| 8. Northumbrian Water                   | 20. Wessex Water                                 |
| 9. Portsmouth Water                     | 21. Yorkshire Water                              |
| 10. Severn Trent Water                  | 22. Anglian Water<br>(formerly Hartlepool Water) |
| 11. South East Water                    |  |
| 12. South Staffordshire Water           |  |

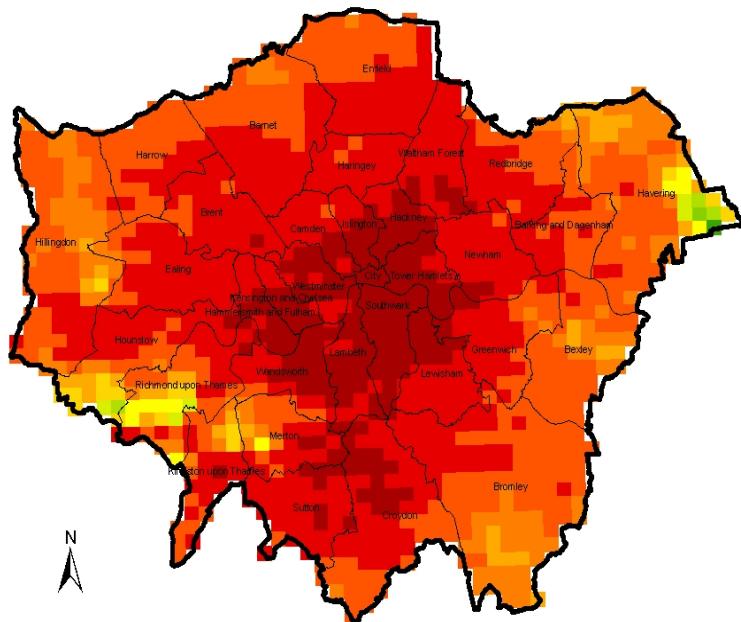


## Mayor's 'six-point plan'

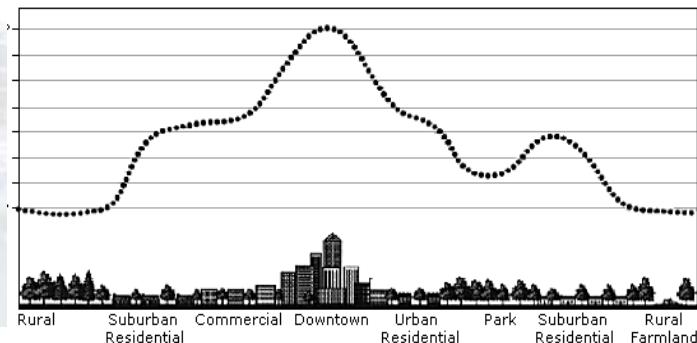
- Ensure all new development is super-water efficient
- Improve the water efficiency of existing development through retrofitting
- Raise public awareness of the benefits of water efficiency
- Install water meters in all properties by 2025
- Bring in tariffs that incentivise water efficiency
- Reduce leakage

# Managing overheating

Temperature distribution in London, August 2003



- Green the downtown area by 5% by 2030
- increase tree cover by 5% by 2025
- Introduce future-looking design guidance
- 'triple jeopardy heat mapping'
- Look for combined cooling heat and power opportunities



# Summary

- To compete in the global market, your city needs to be seen as a safe place to invest and do business in.
- Adaptation and mitigation measures are often complementary and more effectively delivered together
  - Cities need to build public-private-voluntary sector partnerships – you cannot do this alone.
  - City governments need to lead by example – work on your own estates to convince doubters

# Thank you

alex.nickson@london.gov.uk

+44 (0)207 983 4322

