

# Vulnerability Check – Hastings, South East England, UK

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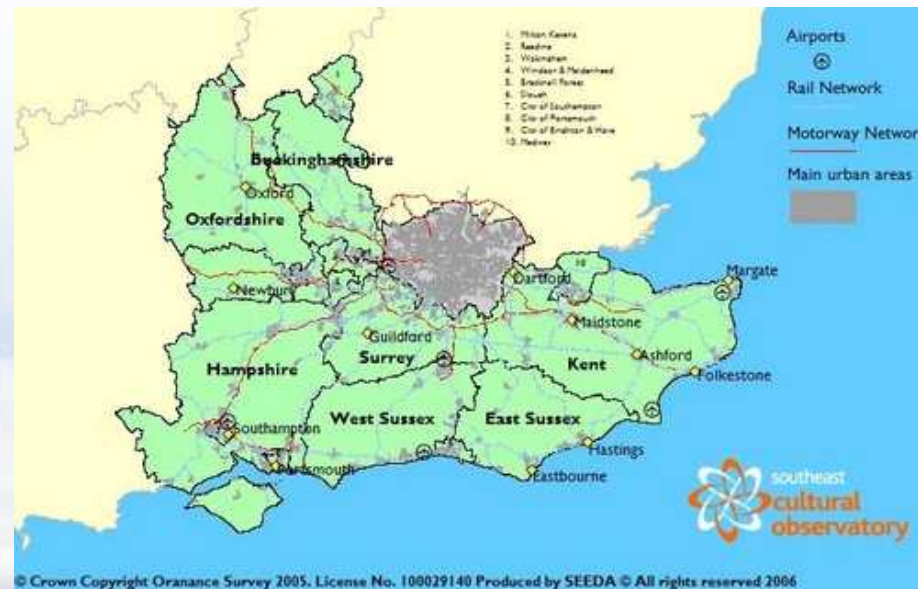


# Regional and Local Climate Change Vulnerability Assessment

Highlight two areas of work that have been developed by the UK partnership

Regional Vulnerability Assessment

Local Climate Impact Assessment



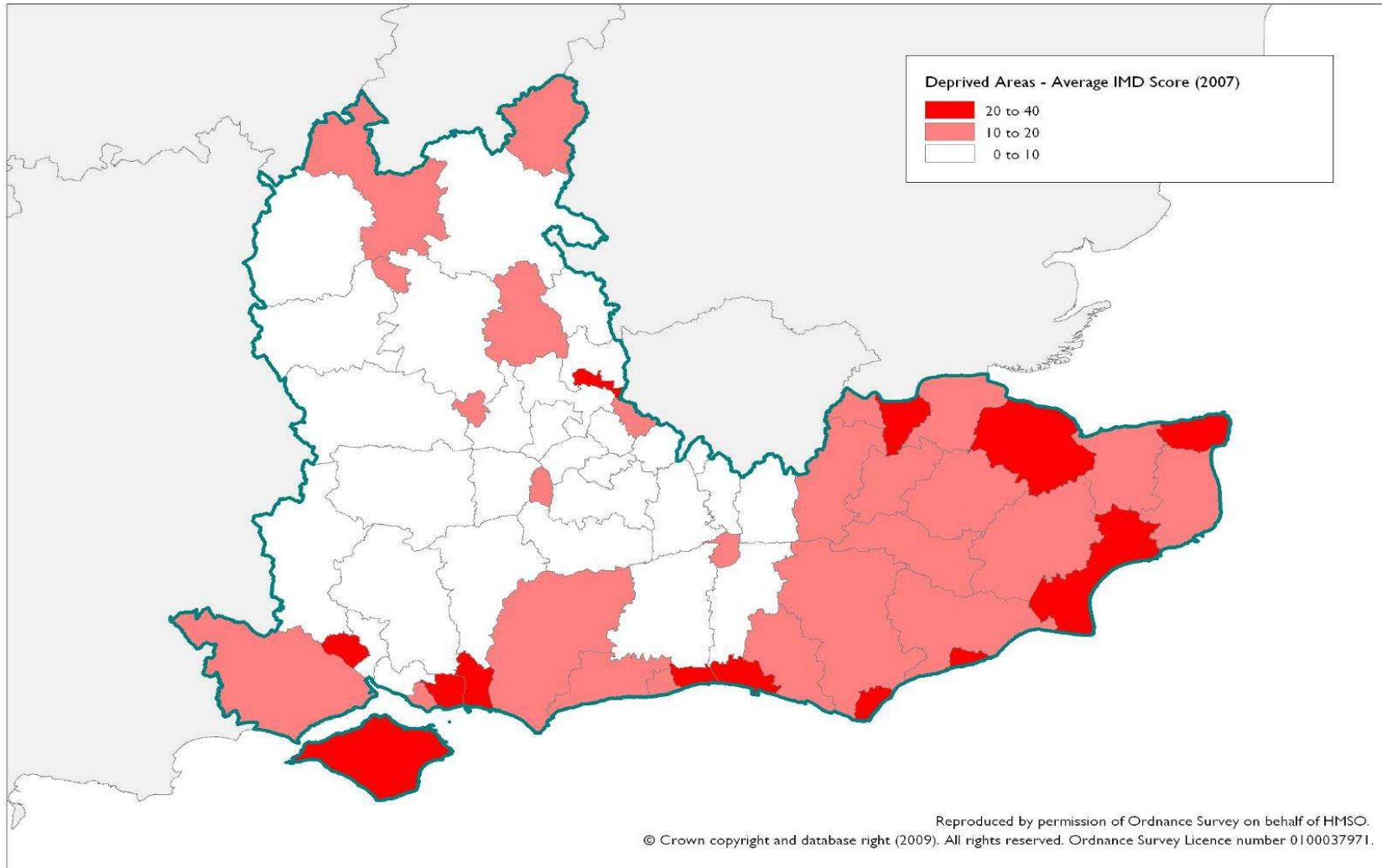
# Introduction

- ▶ **Why?** New requirement by national UK Government (Planning Policy Statement on Climate Change)
  
- ▶ **What?** Identify climate change vulnerability ‘hotspots’ - to inform, in spatial planning terms, the future distribution of growth and prioritise adaptation measures
  
- ▶ **How?** As there is a lack of guidance, develop an innovative approach in cooperation with partners from the international to the local level

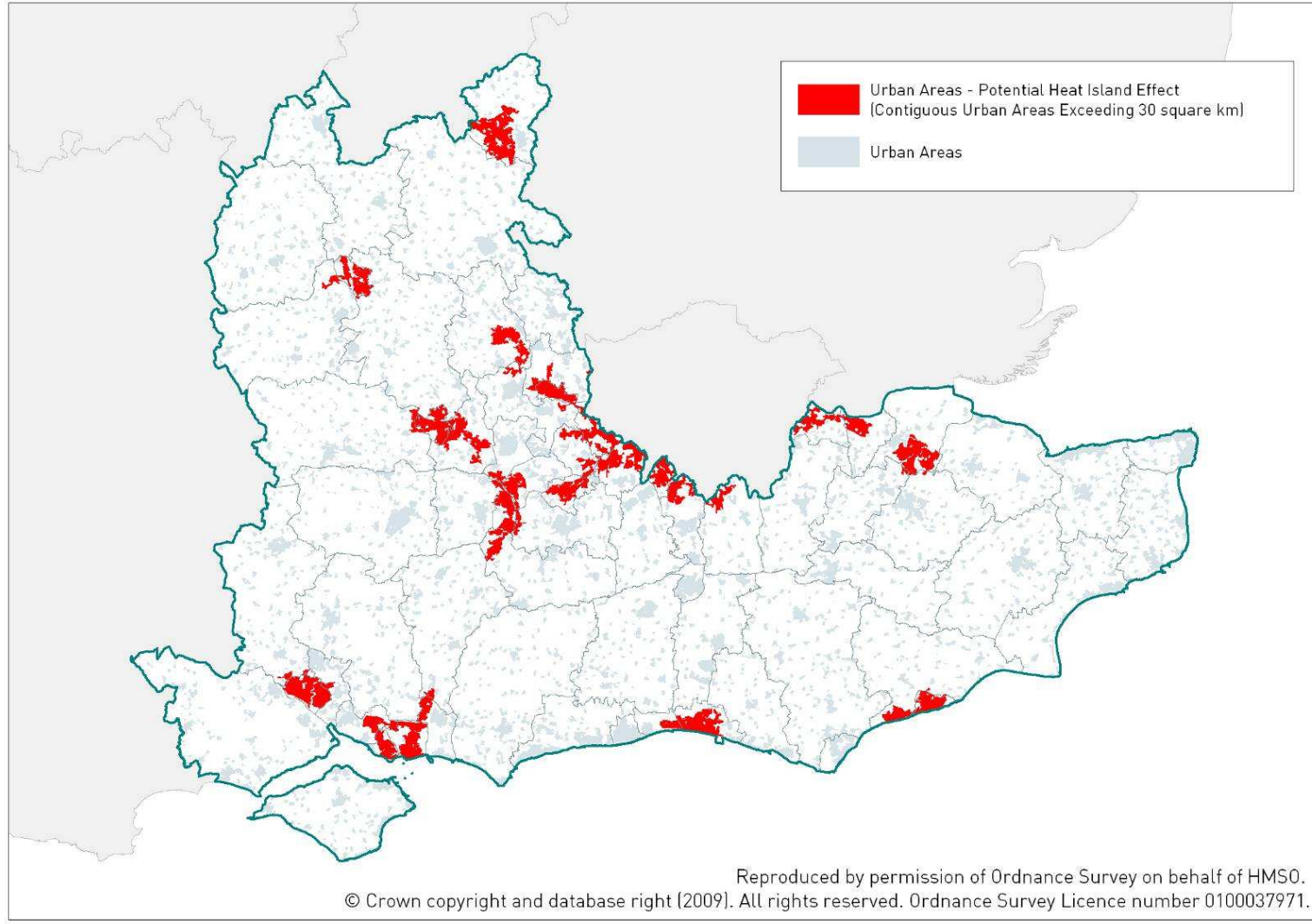
# Our Approach

- What factors enhance (make worse) vulnerability to **current** (and future) climatic change?
- What consequences are **currently** experienced as a result of climate variability (extreme weather)?
- Where are the potential '**hotspots**' where areas of high vulnerability correspond to areas of high climate impact 'risk'?

# Deprivation

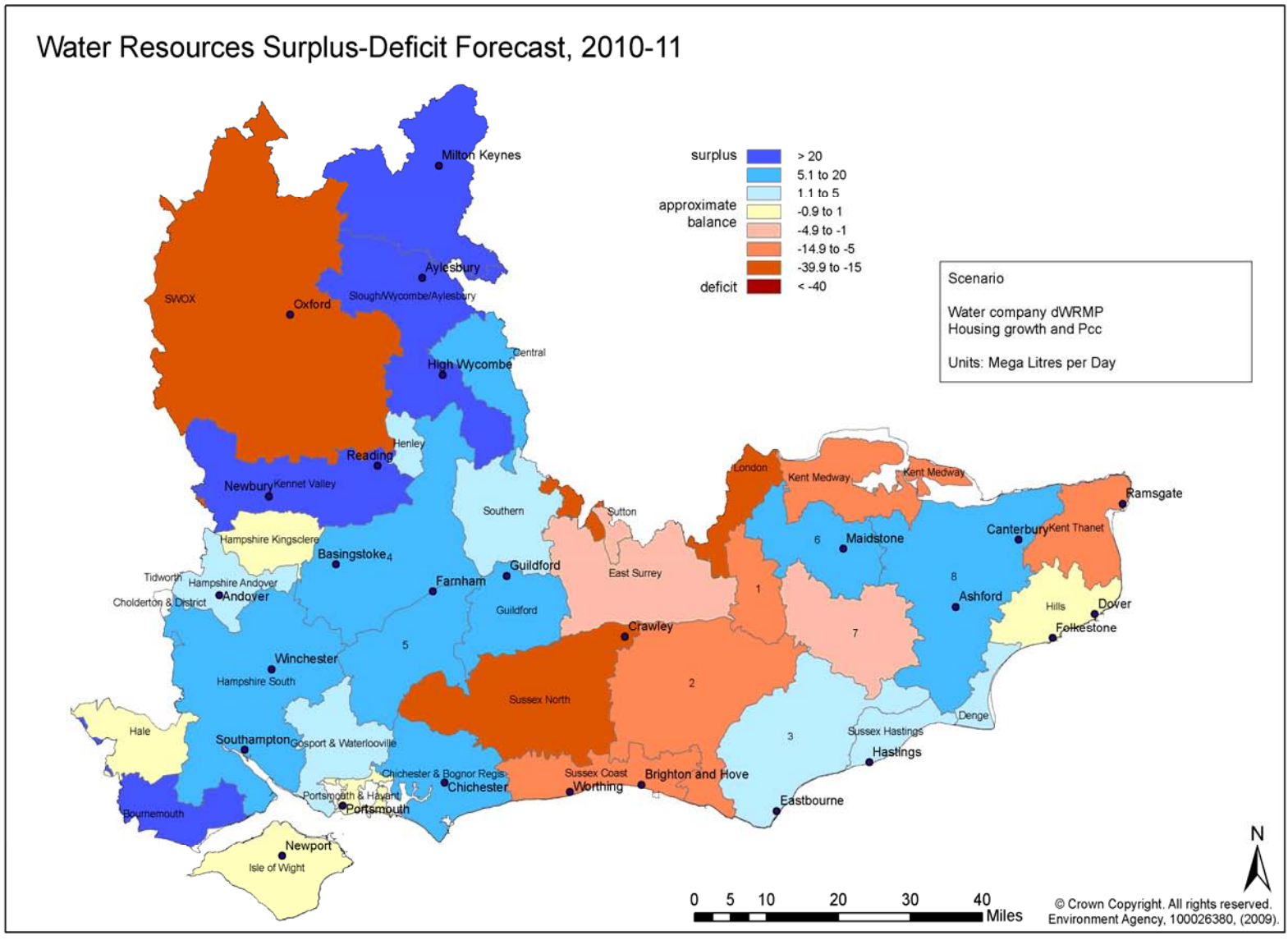


# Urban Areas

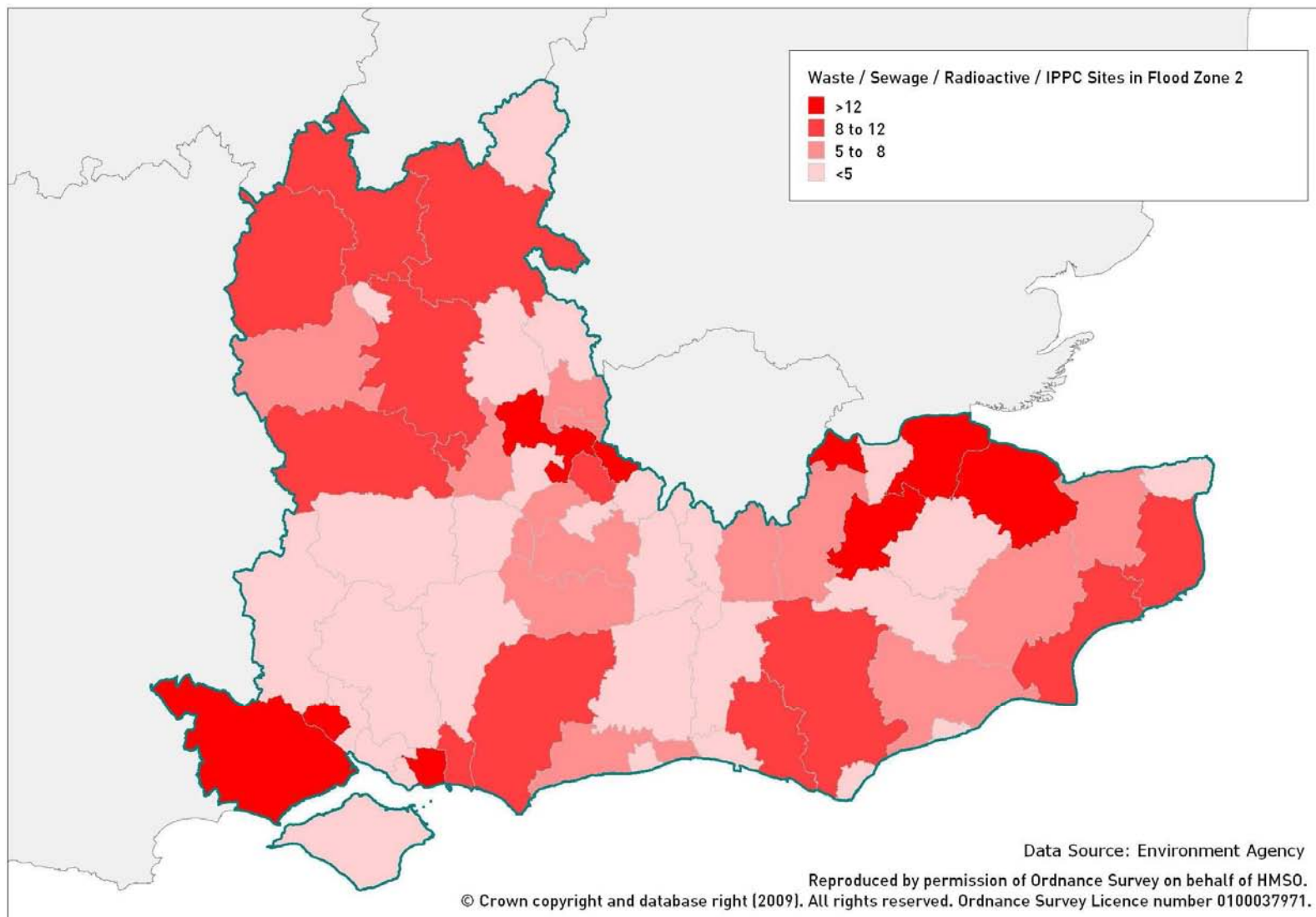




# Water Supply Balance Demand

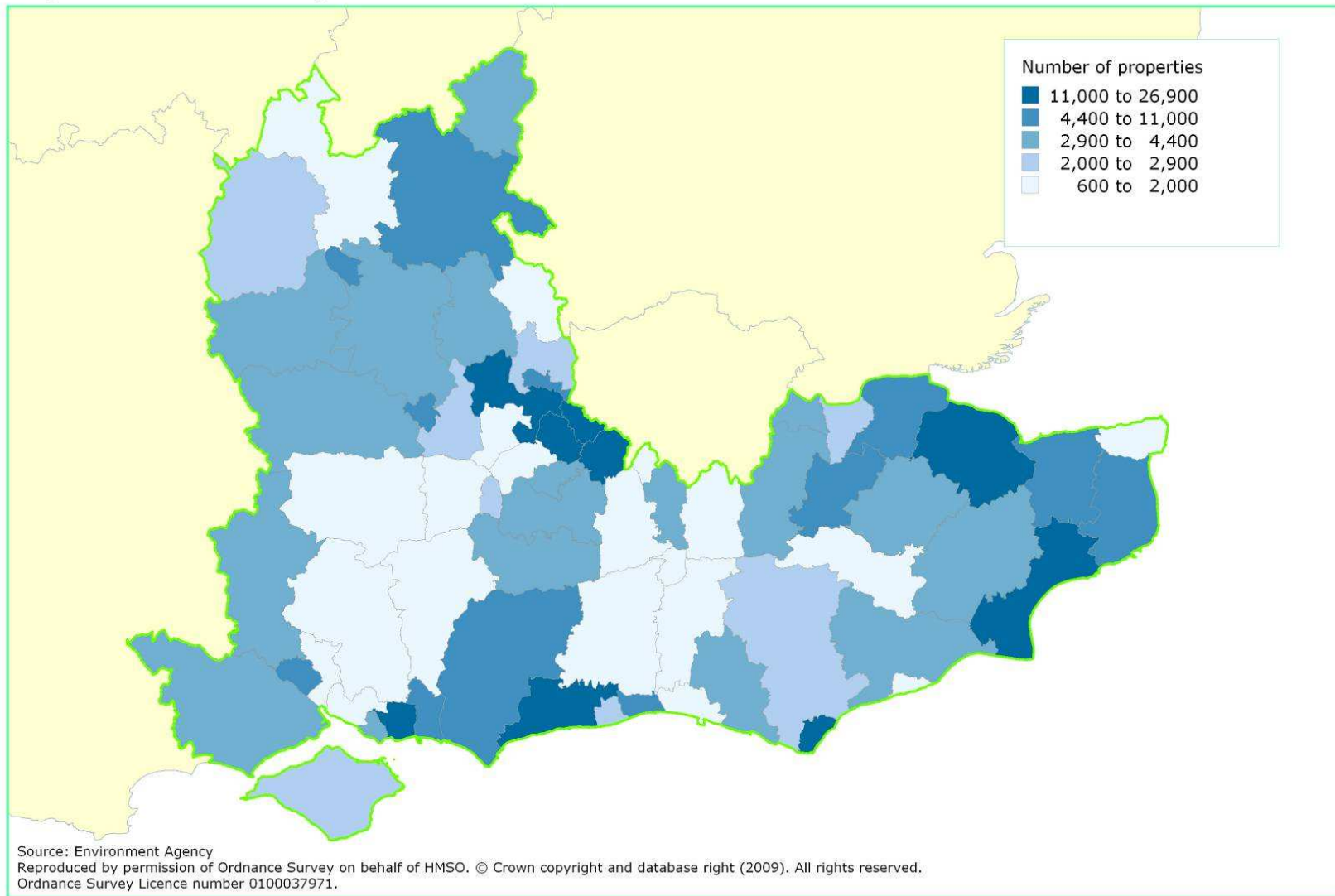


# Flood Risk of Contaminated Sites

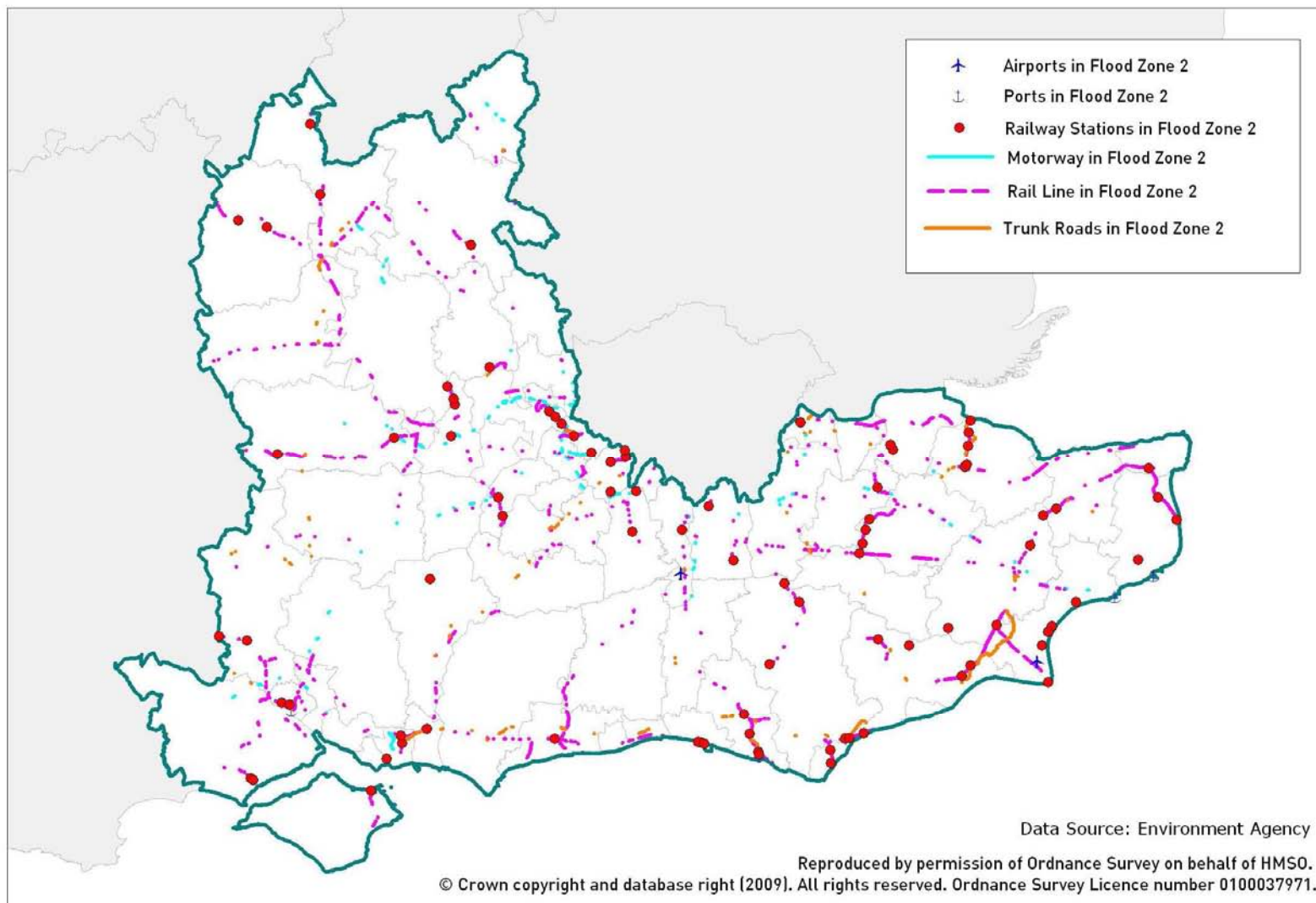


# Flood Risk of Properties

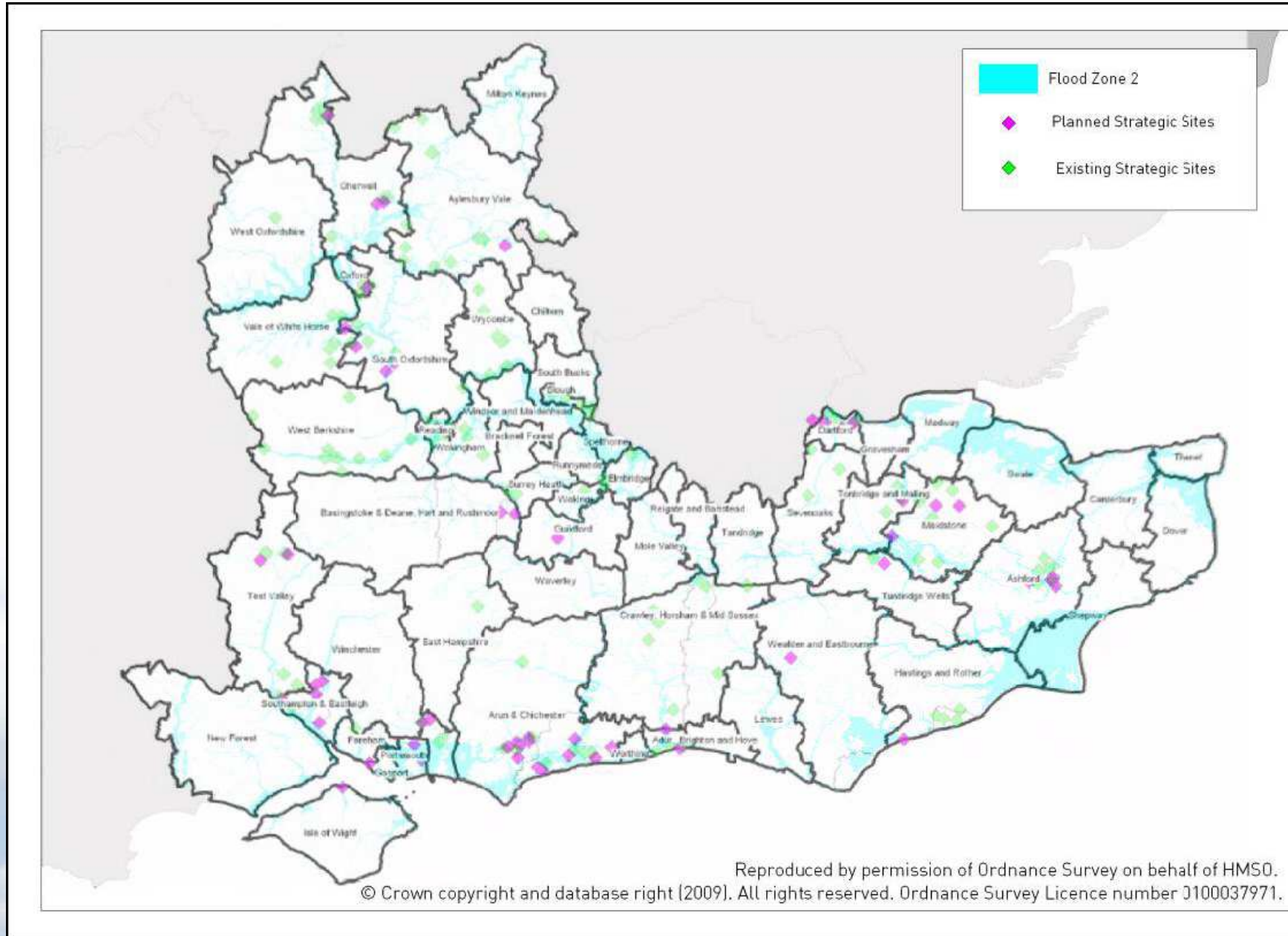
Properties in Flood Zone 3, 2008



# Flood Risk of Transport Infrastructure



# Economic Development



## Initial Findings of the Regional Vulnerability Assessment

- identified “hotspots” by overlaying different maps such as
  - flood risk and low average earning – level of deprivation
  - flood risk and urban heat
- Flooding is the most significant issue related to climate change vulnerability in the region
- Further research is required at a local level to understand local impacts more fully
- Climate change is most likely to have the greatest impact on vulnerable groups, such as old, young, chronically ill and socially excluded who may be less able to access resources to adapt

- A review of urban density vs urban green/blue space and the promotion of adaptation measures such as ventilation and shading
- Severe weather events and temperature rises could lead to overwhelming of health services in some areas
- Implications for water quality and availability
- It may be necessary to provide land for additional/alternative habitats, for example intertidal habitats subject to coastal squeeze

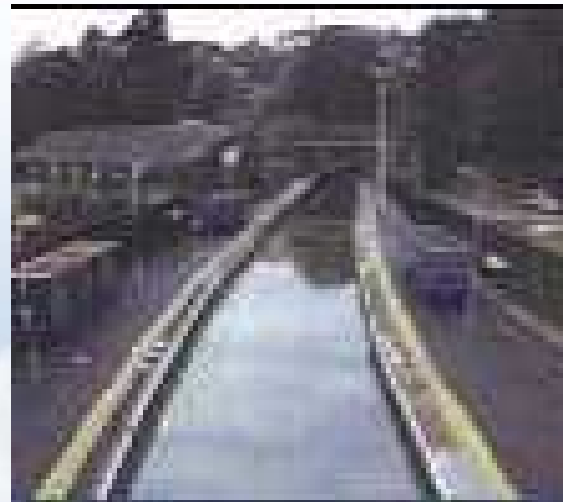
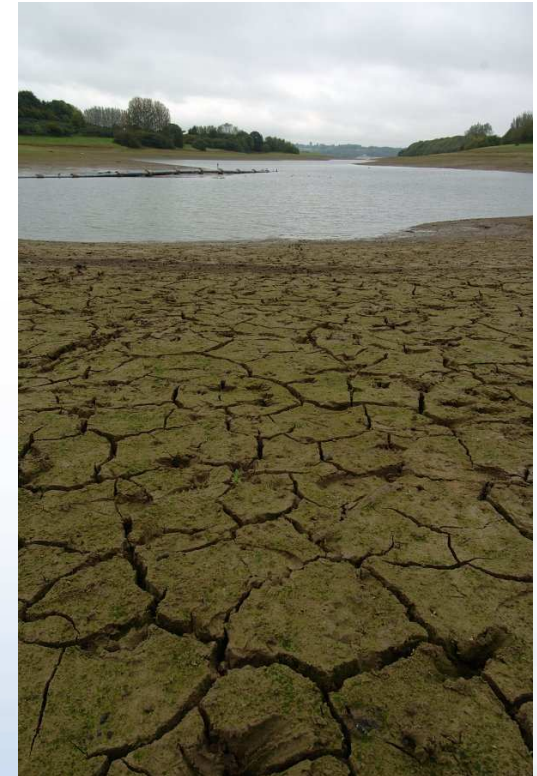
# A Local Climate Impact Profile

- Initial investigation into how the local media recorded severe weather events over a 10 year period
- Local newspaper, website, TV
- We found information about
  - flooding events and high winds
  - heat waves
  - drought reports
  - reports about snow and ice



A Sussex storm: picture by Paul Osborne

# The Impacts



- A framework designed by UKCIP [www.ukcip.org.uk](http://www.ukcip.org.uk)
- Helps to raise awareness about current strategy vulnerability to weather events
- Helps to identify the main consequences of weather events
- Begin to see how “prepared” an organisation and partners are
- Few records to connect weather events and the impact on our services and communities -but we do have a long memory!

## **Flooding/heavy rainfall**

- A259 and promenade closed – clear up costs to remove shingle
- buildings and land flooded
- Impacts on bathing water quality especially summer time

## **High Winds**

- A259 and promenade closed
- Shingle causes disruption
- Street lighting blown down on seafront
- Refuse disposal site closed
- Refuse collection stopped – 90mph winds
- Trees fallen

## Heat Wave

- Large numbers of visitors to the beach
- Fires on the hills
- Road and rail disruptions – roads melt
- Parks and open spaces are busier
- Beach
- More noise, more drinking in the streets – more night time noise complaints

## Next Steps

- Ongoing work
- Building the findings of the assessments into our spatial policy to reflect the vulnerability assessment
- Identify priority areas for action – using a risk-based approach
- Building both the regional vulnerability study and LCLIP into our adaptation policy for the town – hope to complete during 2011

Thank you for listening

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