



# Flood and Coastal Erosion Risk Management Stakeholder Forum

Wednesday 10 July 2013

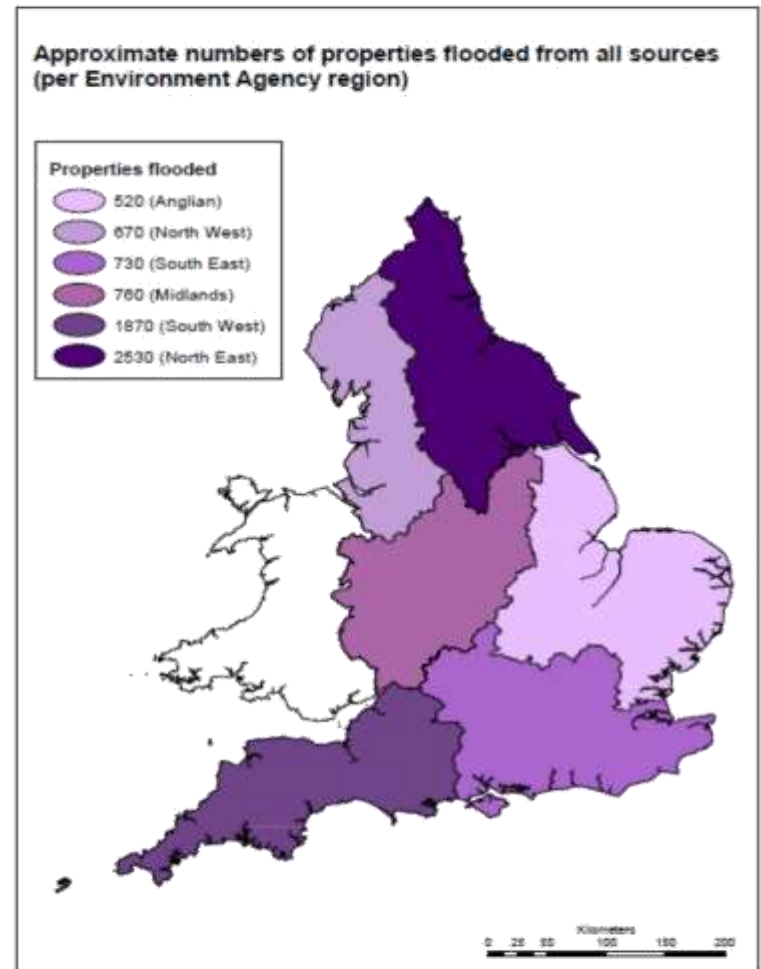
# Managing flood and coastal erosion risks in England

1 April 2012 – 31 March 2013

Emma Thomson  
Senior Advisor  
10 July 2013

# Key this year

- ➔ Over 7,000 properties flooded during the year
- ➔ 43,000 hectares of agricultural land were under water during one week in November alone
- ➔ Over 200,000 properties were protected from flooding



# Key this year

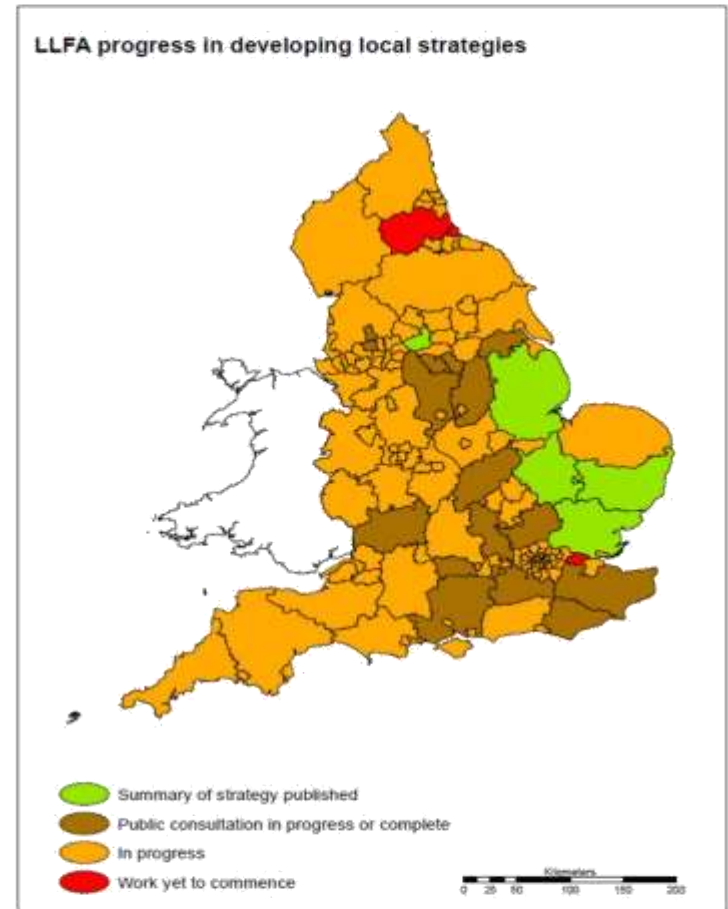
- ➔ Large scale capital projects completed this year are set to deliver £7.1 billion in benefits, a return of nearly 10:1 for every pound invested.
- ➔ The risk of flooding and coastal erosion was reduced for over 59,000 properties.
- ➔ Working in partnership has brought in £8.9 million in additional investment from both public and private sectors to supplement central Government funding.

# Key this year

- ➔ Over 350 hectares of water dependent habitat was created or improved
- ➔ £9.8 million was invested across 83 projects to restore and create healthy natural environments.

# Key this year

➔ LLFAs continue to develop local flood risk management strategies, with 5 now completed and published and 80% in progress.



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## Coastal Groups



## RFCCs



# Contributors



## Lead Local Flood Authorities





# Flood and Coastal Erosion Risk Management Stakeholder Forum

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Department  
for Environment  
Food & Rural Affairs

# The Future of Flood Insurance

## Defra/EA Stakeholder Forum

Date: 10<sup>th</sup> July 2013

# Flood Insurance Announcement

Department for Environment Food & Rural Affairs

Securing the future availability and affordability of home insurance in areas of flood risk  
June 2013

Department for Environment, Food and Rural Affairs  
Securing the future of flood insurance  
An introductory guide  
27 June 2013

Contents  
Securing the future of flood insurance  
Flood Re  
The Flood Insurance Obligation  
What happens next?

## FLOOD RE PROPOSAL: MEMORANDUM OF UNDERSTANDING

The purpose of this note is to set out a joint understanding of how Flood Re might operate in order to help progress the development of the Government's policy in this area. This should not be construed as a legally binding agreement or as a step taken towards such an agreement and does not entitle the ABI, the Government, or any other legal entity or individual to take any enforcement action with respect to this MOU. The model for policy development is as follows.

1. The industry will establish Flood Re as a not-for-profit entity, owned and managed by the industry itself, with the aim of providing affordable flood insurance to households at high flood risk. As it is expected that the Office of National Statistics will classify some of Flood Re's funding as tax, there are implications for Flood Re's operational arrangements and governance to provide accountability for public resources which would in turn be likely to affect whether Flood Re is classified as a public or private sector entity for the purposes of compiling the national accounts. Flood Re will act as a transitional measure, with its benefits for high flood risk households phased out within 20-25 years.
2. Insurers will be able to put into Flood Re domestic flood risk policies that they assess as having a technical flood risk premium greater than the appropriate eligibility threshold. It will be entirely a matter for Flood Re itself to decide how Flood Re reinsurance thresholds are set. The Flood Re organisation will need to work with Government to agree arrangements to limit the impact of Flood Re on the public finances. Flood Re will also be established in such a way that it meets standards for accountability which are applicable to public bodies.

Eligibility threshold will initially be indexed to CPI. The industry will ensure that the element of price paid by consumers for a combined policy opted to Flood Re does not exceed, in 2013 money: Council Tax Band A £210pa, Bands B £210 pa, Band C £270 pa, Band D £330 pa, Band E £405 pa and Band F £440 pa. Band G properties built after January 2007 and generally uninsurable properties sold from Flood Re. The industry will also ensure that there will be a charge each of its member firms an annual charge totalling £180 million, equally shared to £15.00 in respect of each household provided with insurance by that member firm. According to the ABI's best estimates, this is in accordance with the existing cross-subsidy for the £50,000

THE TIMES  
Insurance

## New insurance deal for flood risk homes



theguardian

News | Sport | Comment | Culture | Business | Money | Life & style

Environment > Flooding

## £370m spending boost for new flood defences

Figure for 2015-16 is an almost 50% increase compared with this year, with government pledging to increase sum in line with inflation until 2021

theguardian

News | Sport | Comment | Culture | Business | Money | Life & style  
Money > Home insurance

## Flood insurance deal sees fears recede over future cover

Managing the future financial...  
Local Government...  
Other departments or agencies...  
Not for profit, charitable and Local Government, etc.  
Agency

Summary: Intervention and Options

Technical Project	Estimated cost (£m)	Cost of intervention (£m)	Net cost (£m)
1	100	100	0
2	200	150	50
3	300	200	100

What is the problem under consideration? Why is it a problem? What are the options? What is the preferred option? What are the risks? How are the risks managed? What are the benefits? How are the benefits managed? What are the costs? How are the costs managed? What are the risks? How are the risks managed? What are the benefits? How are the benefits managed? What are the costs? How are the costs managed?

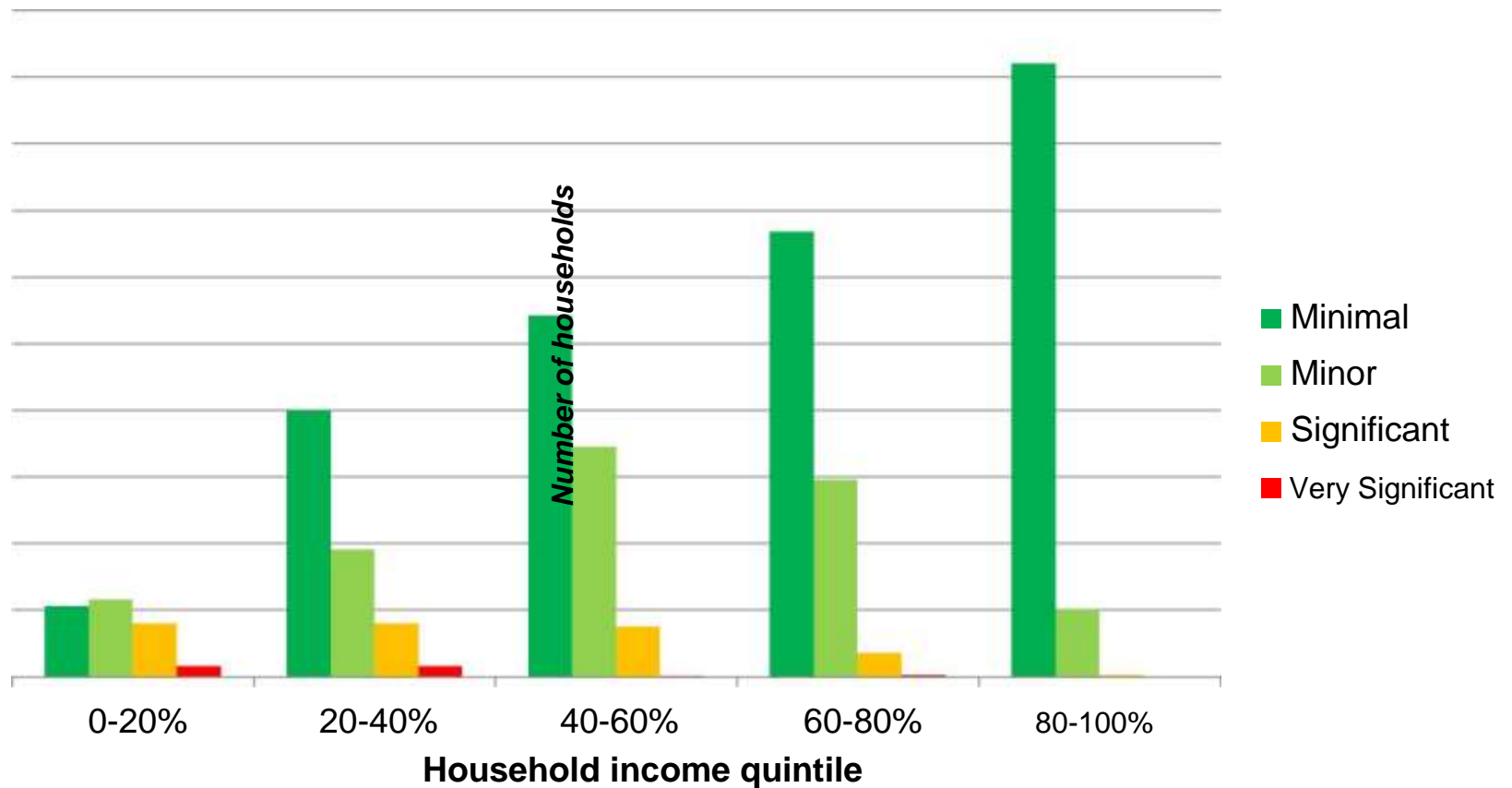
Water Bill

CONTENTS

Part 1	WATER SUPPLY
Part 2	WATER AND SEWERAGE SERVICES
Part 3	WATER SUPPLY AND SEWERAGE SERVICES
Part 4	WATER SUPPLY AND SEWERAGE SERVICES

# Why are we doing this?

Estimated impact on household income of risk reflective pricing for buildings insurance for properties with some degree of flood risk in their premium

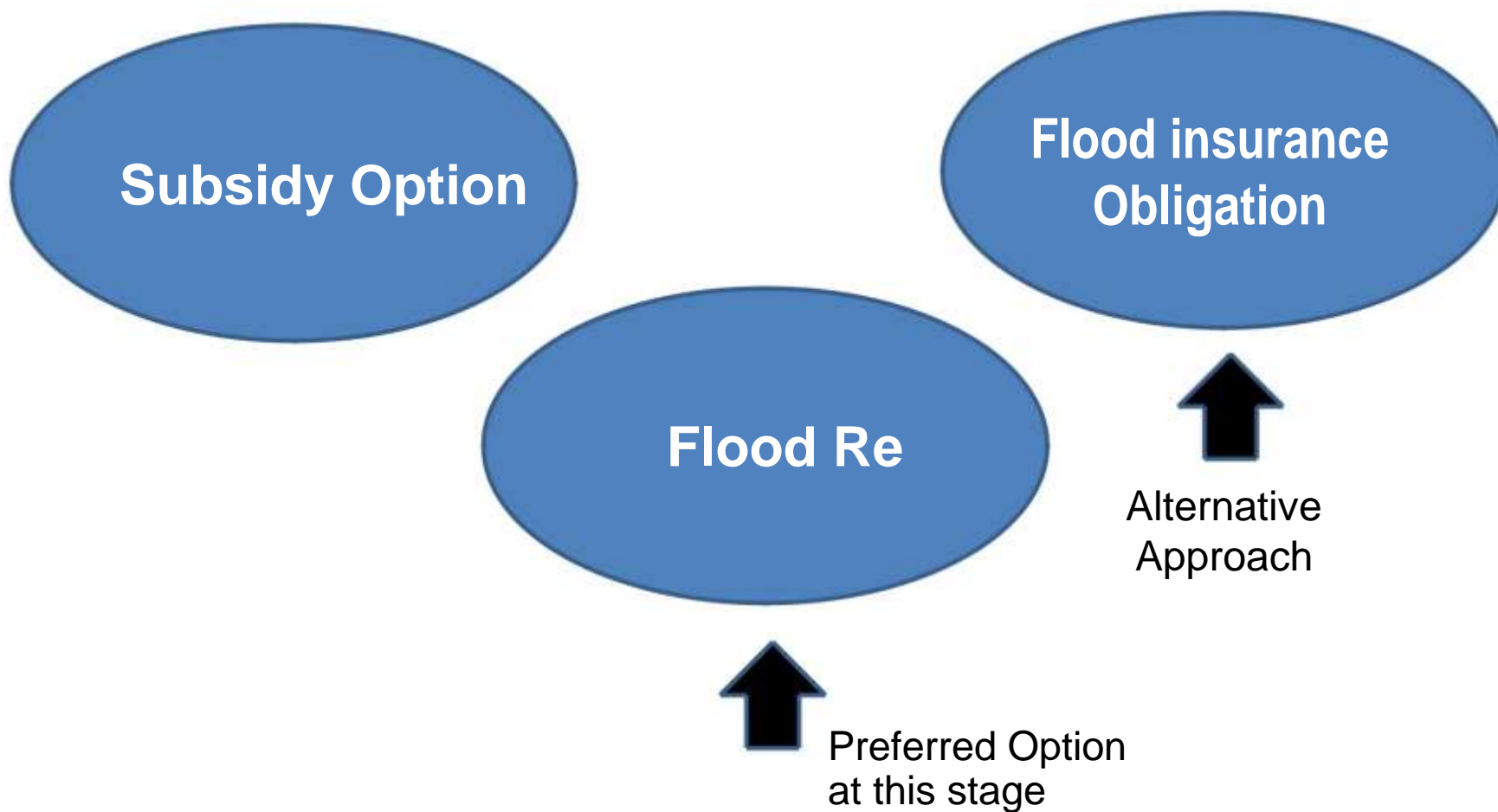


# Policy Aim

- *to ensure that domestic property insurance continues to be widely available and affordable in areas of flood risk without placing unsustainable costs on wider policyholders or the taxpayer*
- *over time there should be a gradual transition towards more risk-reflective prices, based on robust evidence of local risk, to increase the incentives for flood risk to be managed whilst allowing time for choices to be made and appropriate action to be taken.*
- *Government envisages this transition taking place over the next 20-25 years*

# Options

## Improving Flood Defences



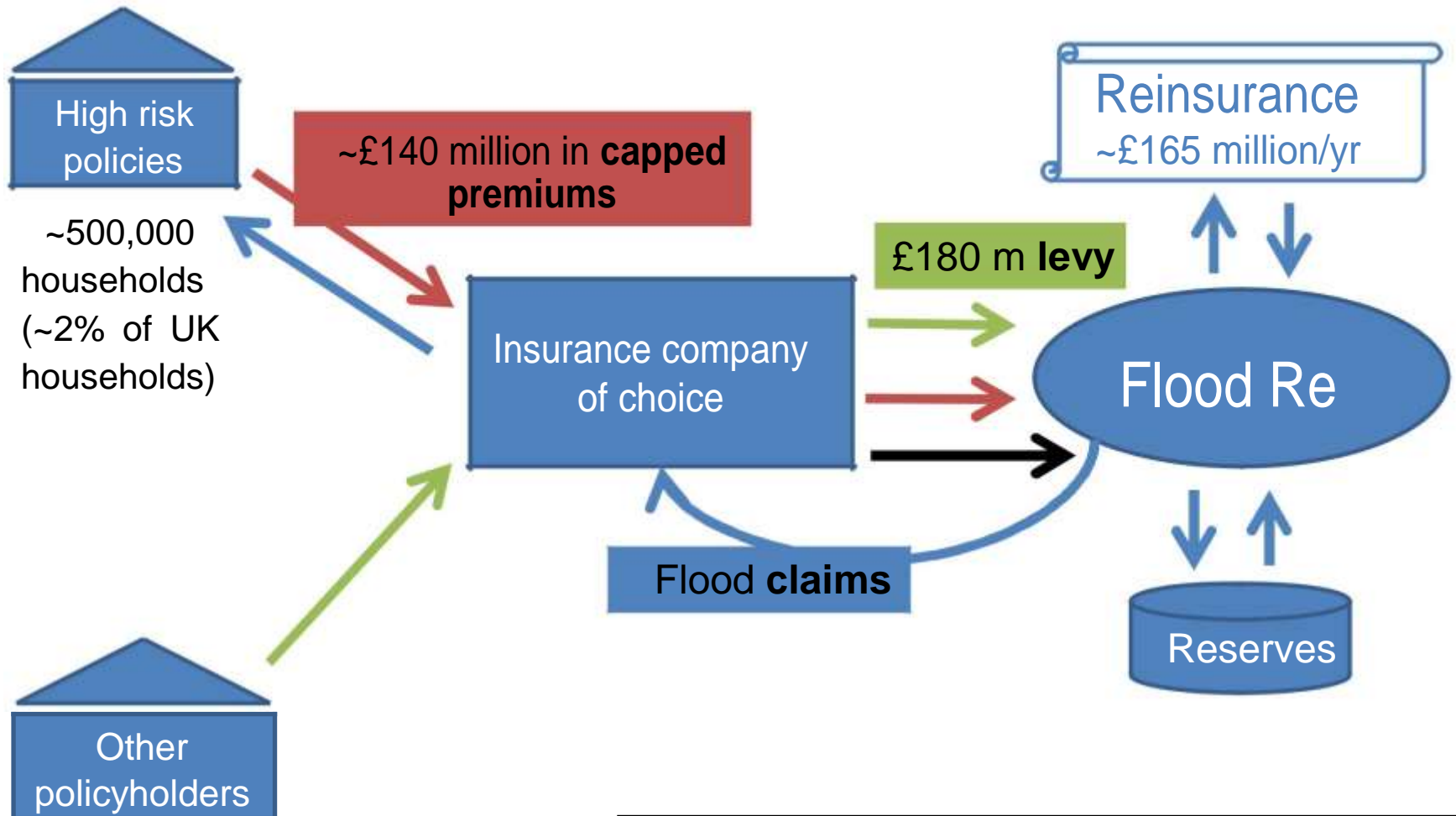
# Memorandum of Understanding

- A shared vision
  - a not-for-profit organisation run by the industry
  - eligibility thresholds at affordable levels
  - industry levy mirroring the existing cross-subsidy
  - additional ad-hoc insurer contributions to help cashflow
  - under-pinned by new legislation to avoid free-riding

Prepares the ground for parties to work together to move the vision forward



# Flood Re

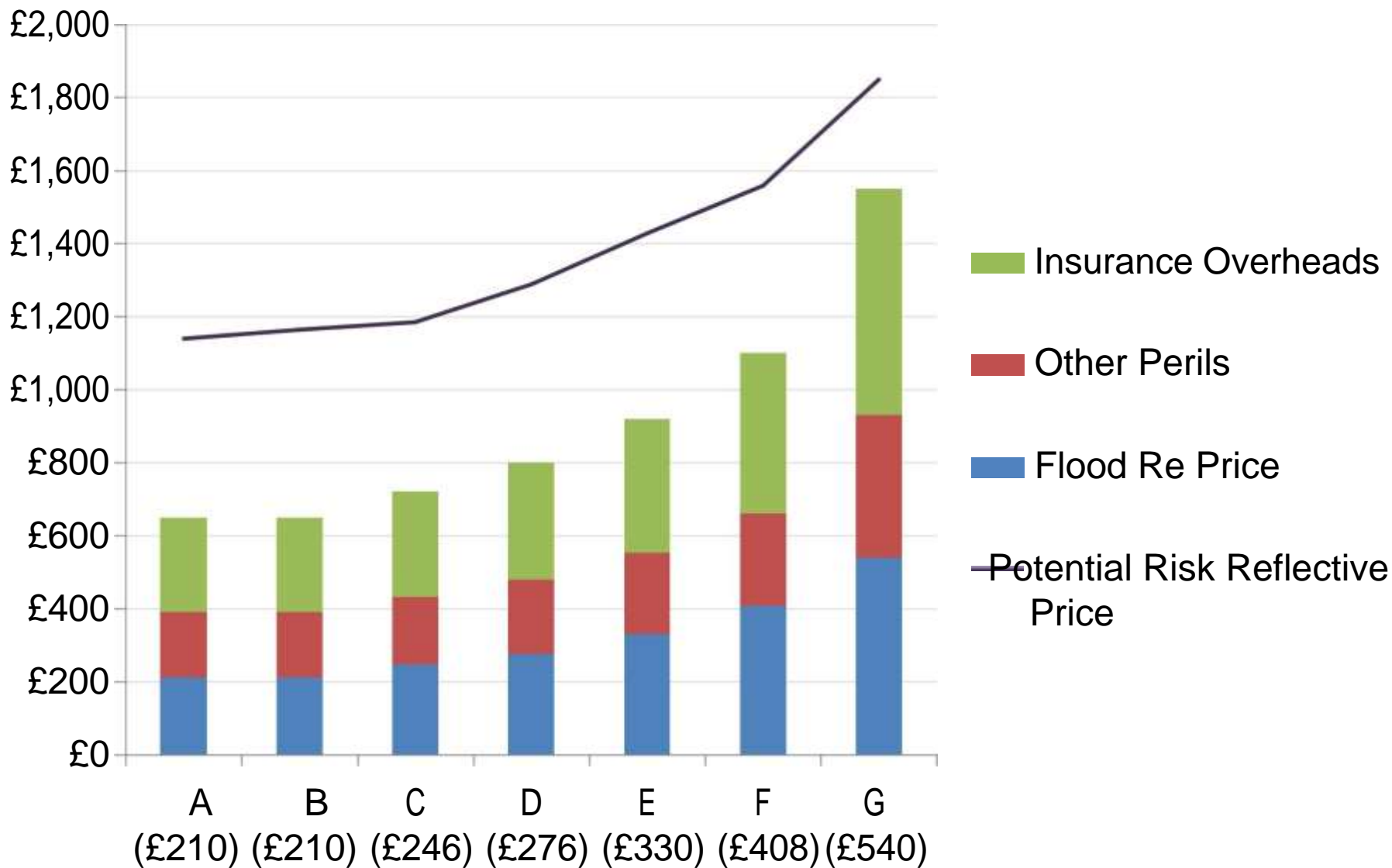


**Ad-hoc contributions**  
Up to ~£100 million from insurers in the event of a major flood, if insufficient reserves in place

# How does it work?

- Compulsory scheme – legal powers coming from Water Bill
- Industry run re-insurance pooling scheme for high flood risk properties
  - All insurers must pay levy
  - Insurers choice as to which policies are ceded to the re-insurance pool
- Targeting/Exclusions
  - Council Tax Bands / Band H
  - Houses built since 2009
  - “Genuinely uninsurable” properties
- Operates for 20-25 years

# Council Tax Banding



# Dependencies

- Consultation
- Parliamentary approval
- EU State Aid approval process
- Continued insurance industry support

If Flood Re cannot be made to work and ongoing market monitoring shows high flood risk households are not able to access affordable insurance...

# Flood Insurance Obligation

- Also seeking powers to create Flood Insurance Obligation
- Would require each insurer to take their share of high risk policies
  - A regulator – to supervise the flood insurance obligation
  - An administrator – to develop a register of properties at high flood risk
- Size of the „obligation“ with all UK insurers taking a share
  - Exemptions
  - Targets/share of the market
  - System of trading credits
  - Breaches dealt with by Civil Sanctions

# Next Steps

- Consultation ends 8 August 2013
- Bill Stages
  - 2<sup>nd</sup> reading in House of Commons - autumn
  - Committee Stage – introduction of full clauses
  - Report Stage
  - 3<sup>rd</sup> Reading
  - Enters the House of Lords (January)
  - Royal Assent in the spring
- Flood Re in place by summer 2015



# Workshop

## Topics

- Policy Objective and approach
- Policy Options
- Flood Re – Eligibility for support
- Flood Re – Exemptions and funding
- Flood Insurance Obligation
  - nature of the obligation and flood risk register

40 Minute Workshop

Feedback Session at 12:00

Panel Discussion at 12:15



# Flood and Coastal Erosion Risk Management Stakeholder Forum

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# Climate change and flood risk

Dr Sarah Jackson, Met Office

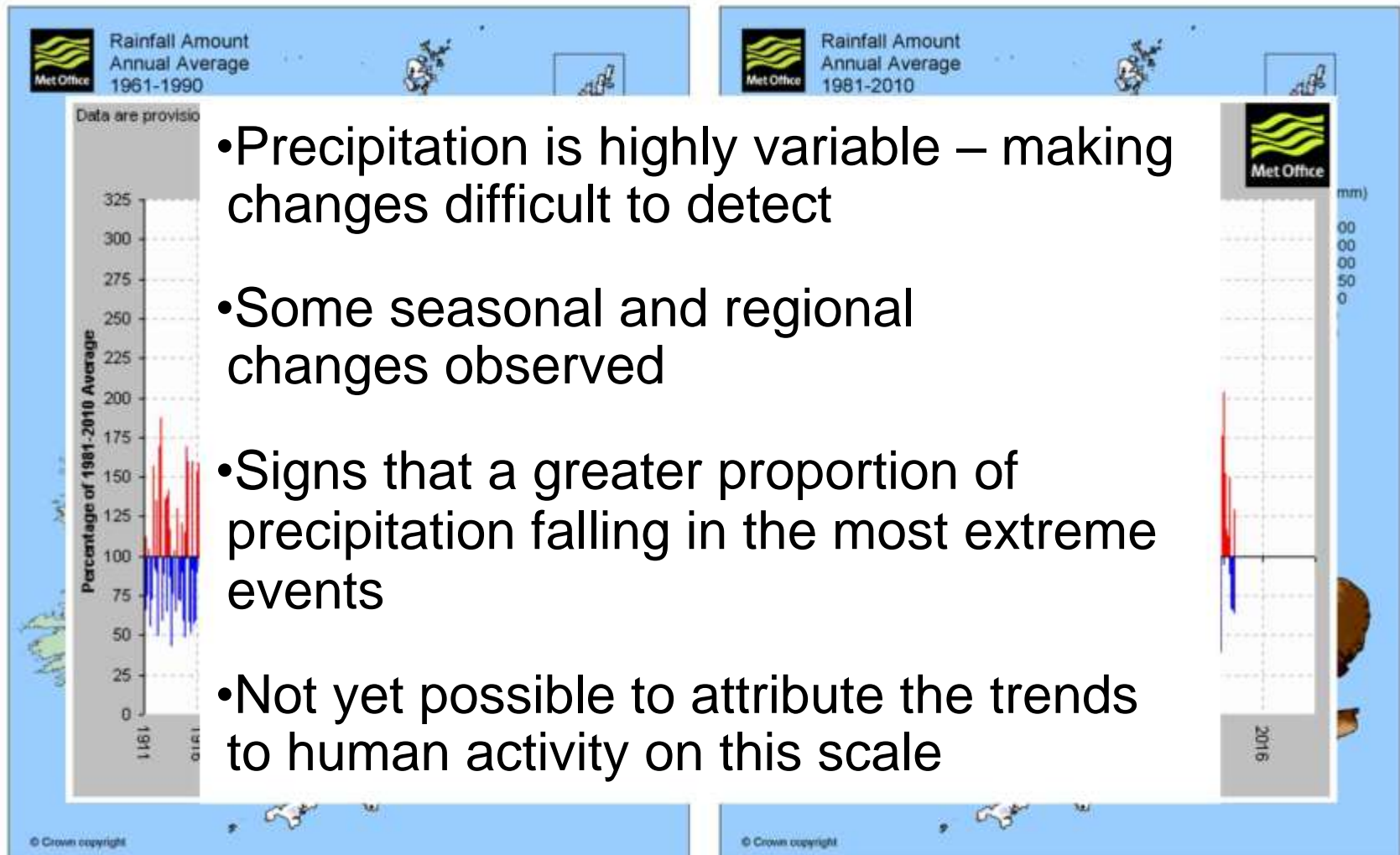
[www.metoffice.gov.uk](http://www.metoffice.gov.uk)

# Global changes in precipitation

- Mid and higher northern latitude precipitation increase from 1900–2010
- Precipitation in the tropics has likely increased over the last decade, reversing a trend of drying
- Likely that the number of heavy precipitation events has increased significantly in more regions than it has decreased since 1950
- Detection of human influence on:
  - Zonal patterns of precipitation changes

- High northern latitude precipitation changes
- Atmospheric humidity

# What about the UK scale?



- Precipitation is highly variable – making changes difficult to detect
- Some seasonal and regional changes observed
- Signs that a greater proportion of precipitation falling in the most extreme events
- Not yet possible to attribute the trends to human activity on this scale



# Recent research has focused on looking at how human influence may have altered extreme months or seasons



## UK Autumn Floods of Autumn 2000

In 9 out of 10 cases model results indicate that twentieth-century anthropogenic greenhouse gas emissions increased the risk of floods occurring in England and Wales in autumn 2000 by more than 20%

In two out of three cases the increase was more than 90%

Pall et al., 2011

# Recent research has focused on looking at how human influence may have altered extreme months or seasons



## UK Autumn Floods of Autumn 2000

For all but one (of 8) catchment, emissions are likely to have led to an increased chance of flooding in the October–December period.

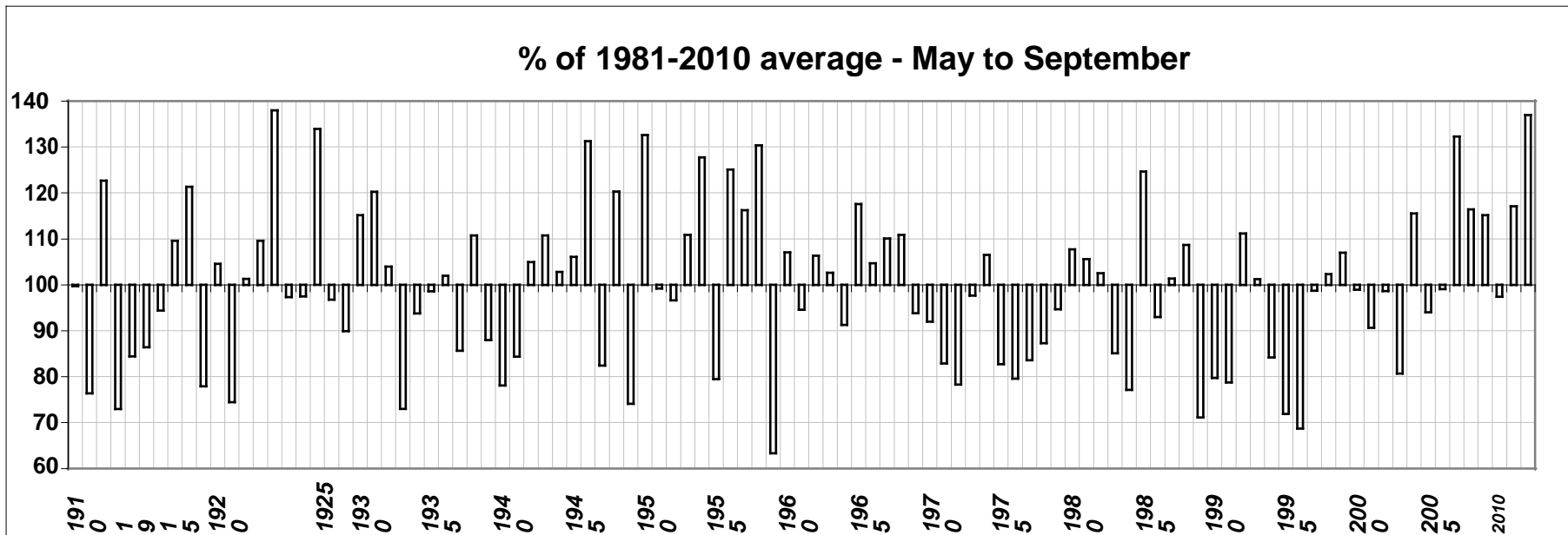
**BUT**

Definitive conclusions are difficult however, as there are wide bands of uncertainty

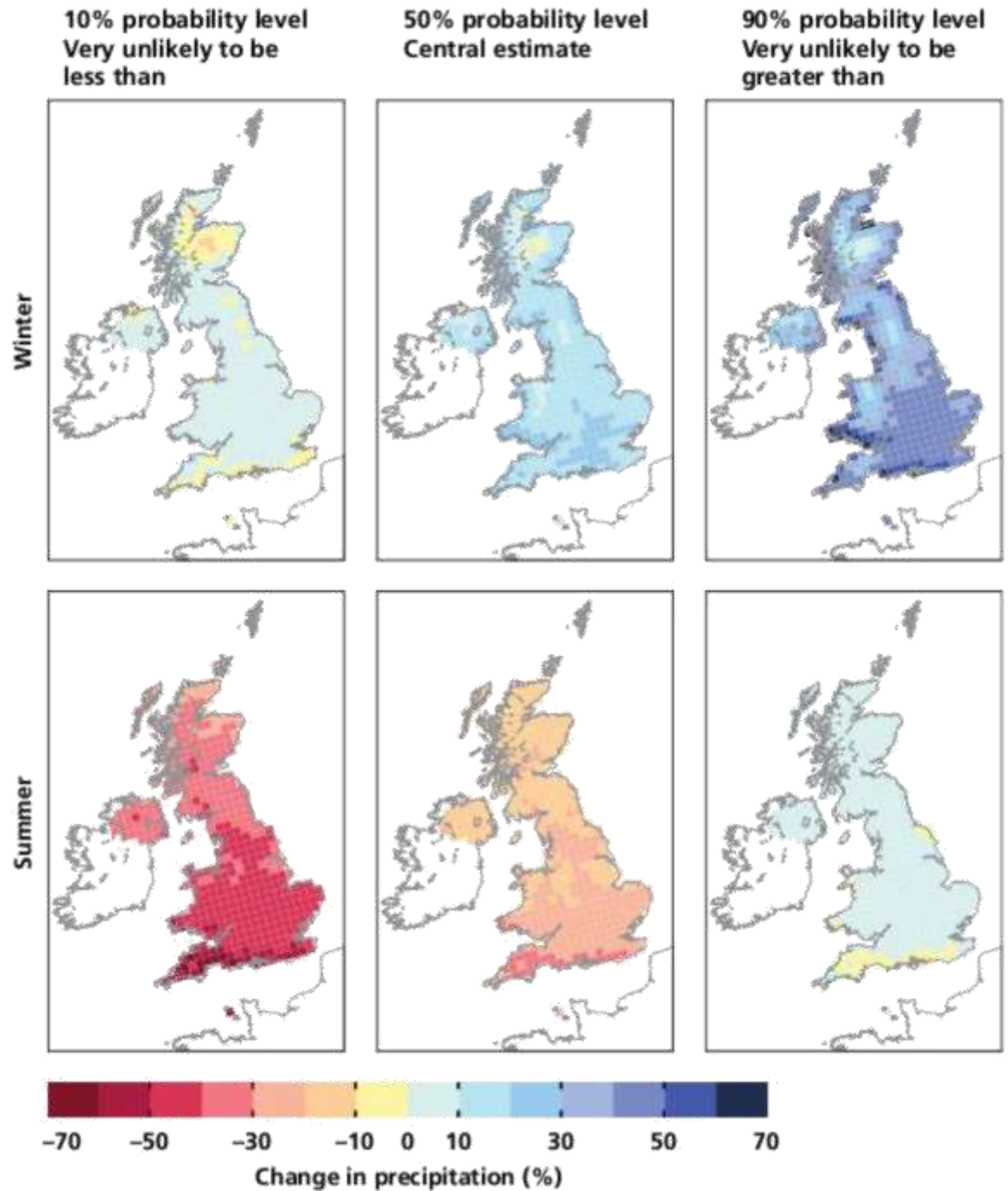
Kay et al., 2012

# Why was 2012 so wet?

- Long term ocean processes
- Arctic Sea ice
- Solar Cycle



Changes (%) in winter and summer mean precipitation at the 10, 50 and 90% probability levels for the 2080s under the Medium emissions scenario.





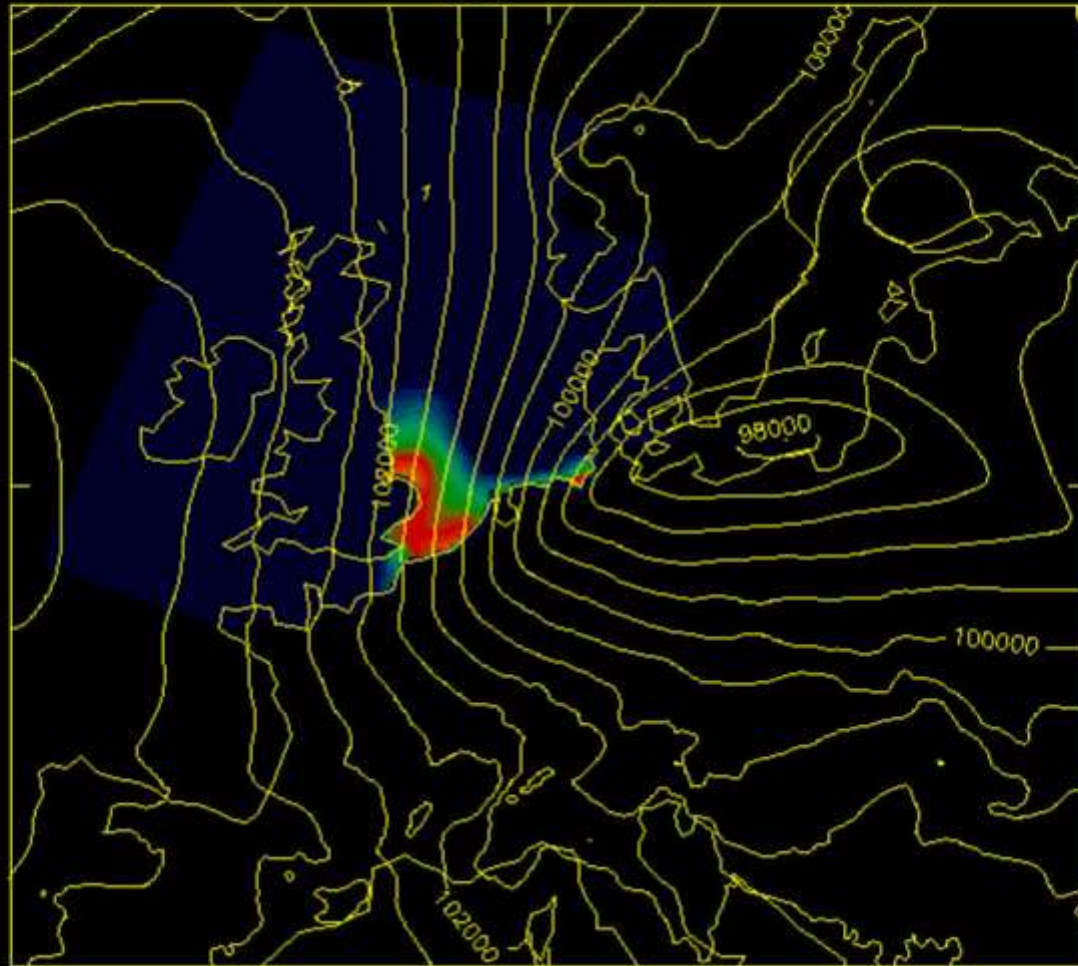
# Coastal flooding Factors to Consider



- Rising sea levels
- Vertical movement of the land
- Changes in flood risk from surges



Hour: -3



Resid (m)



0.575

0.8

1.025

1.25

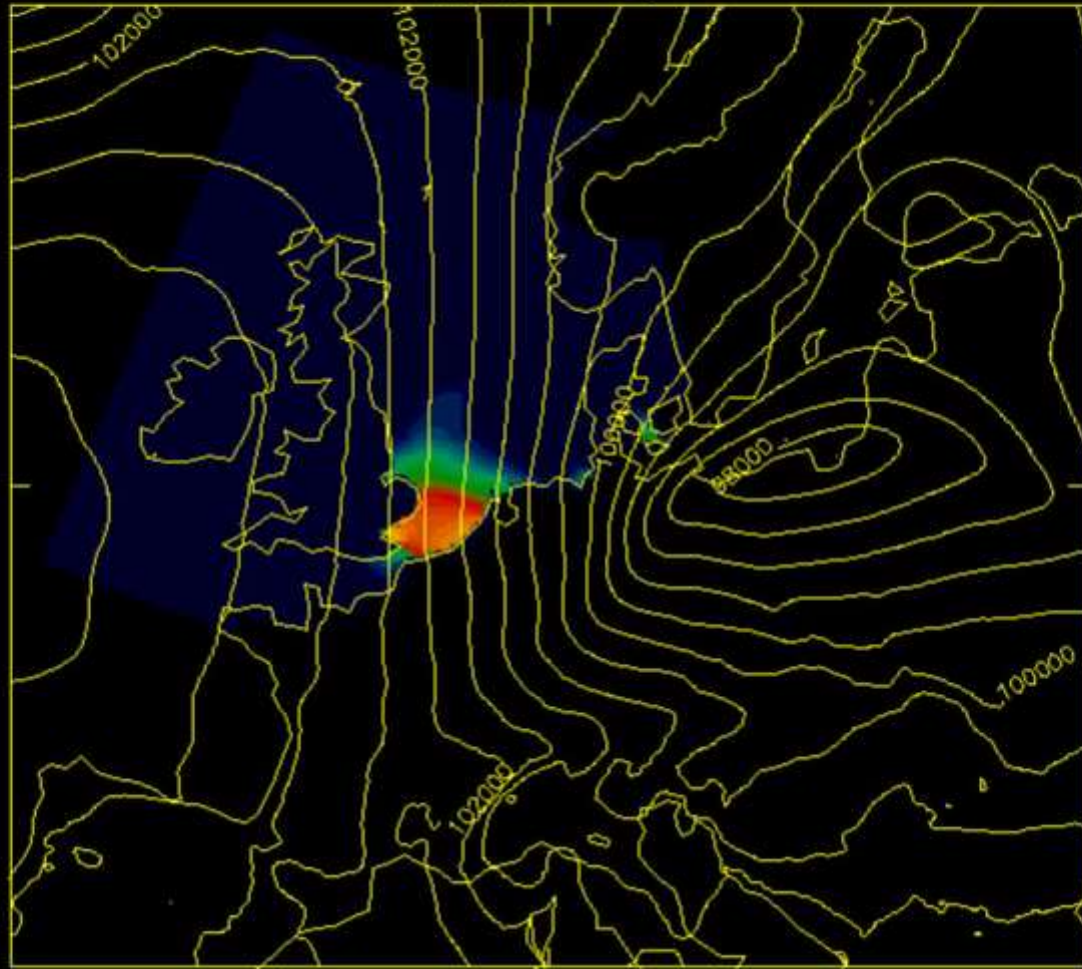
1.475

1.7

1.925



Hour: 0

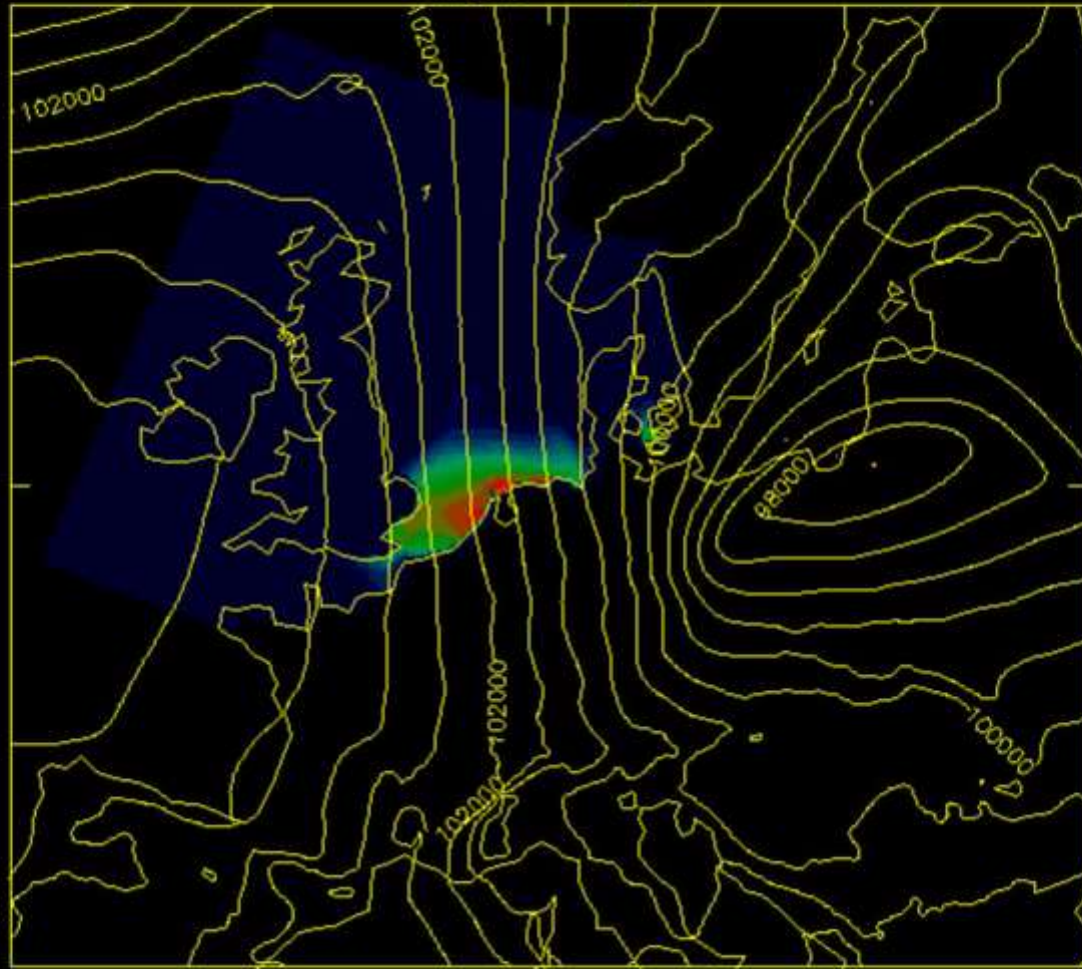


Resid (m)



0.575    0.8    1.025    1.25    1.475    1.7    1.925

Hour: 3



Resid (m)



0.575 0.8 1.025 1.25 1.475 1.7 1.925

# Key Science findings

## New projections of storm surges

- No significant 21st century trend

## New projections of sea level

- Relative rise of 20 to 90cm

## New projections of 21st century Thames river flow at Kingston

- Change by –10% to +70%

## A H++ scenario for sea level and surges

- A low probability scenario of largest plausible rises

# The coastal flooding results have been extended to rest of UK coastline

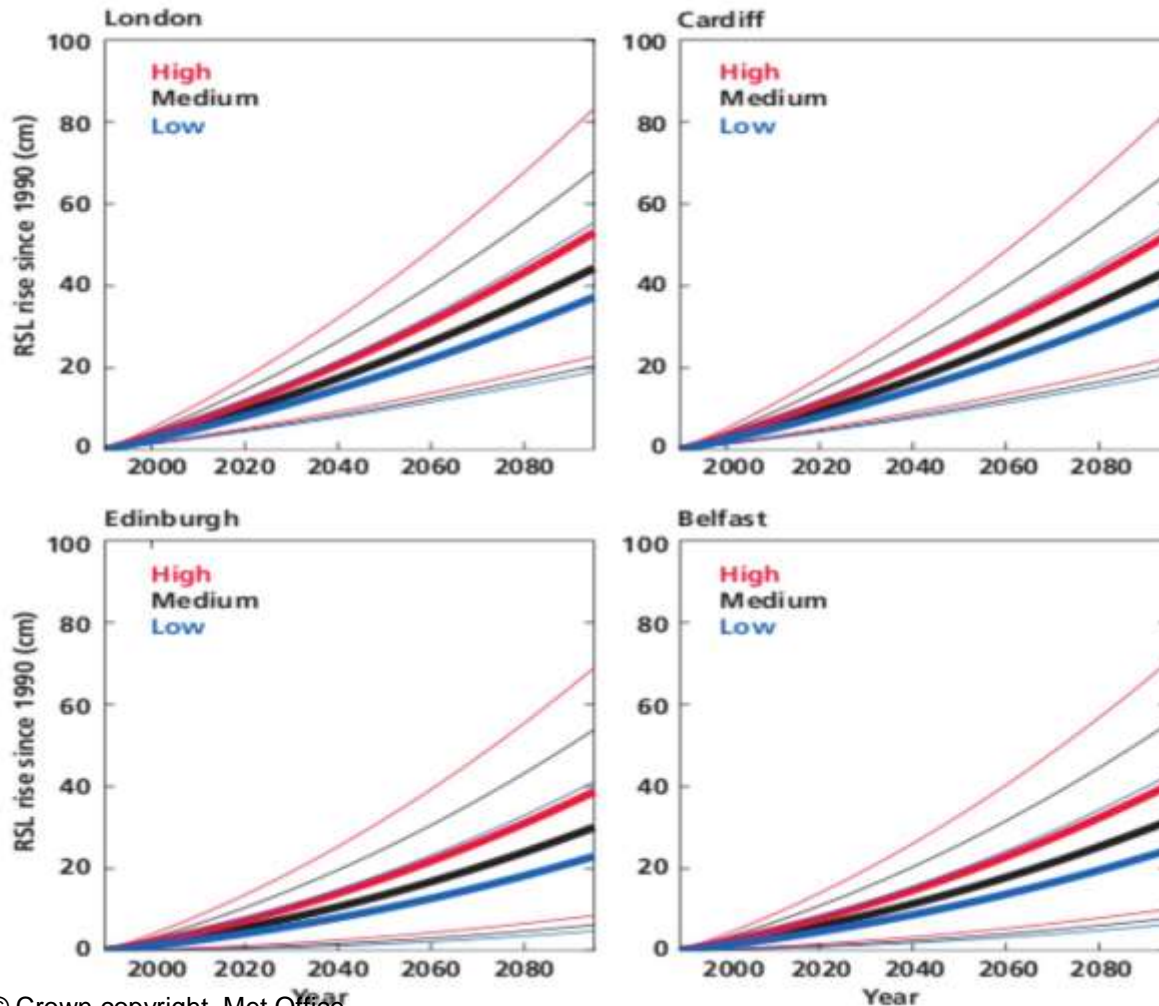


Figure 3.6: Relative sea level (RSL) rise over the 21st century showing central estimate values (thick lines) and 5th and 95th percentile limits of the range of uncertainty (thin lines) for four sample locations around the UK. Values are relative to 1990. Central estimates for each decade are given in Table 3.4.



# Flood & Coastal Erosion Risk Management Stakeholder Forum

Kylie Russell  
Business Resilience Lead  
Climate Ready  
FCRM  
Environment Agency



A support service led by the Environment Agency

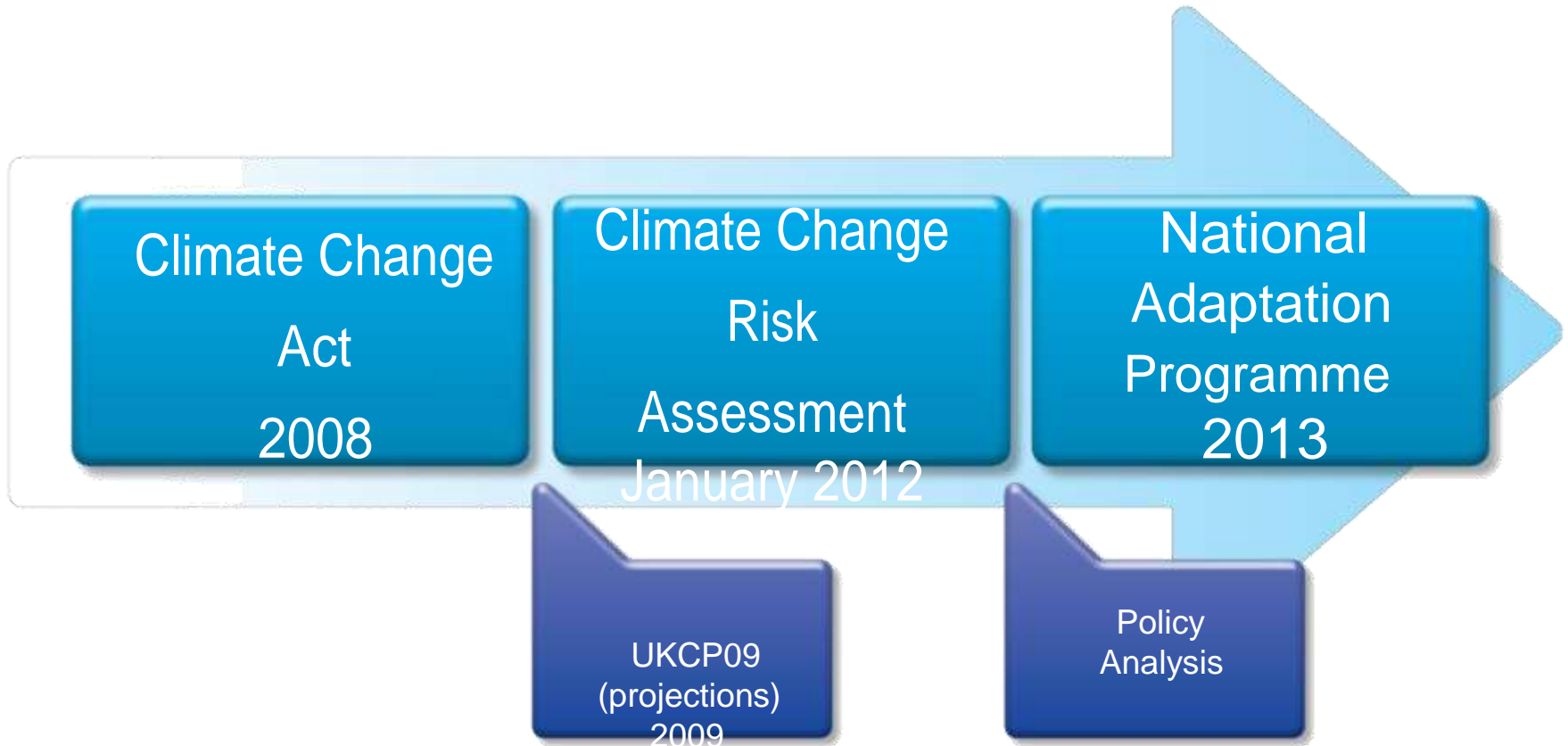


# Increasing flood risk

- ➔ Today, around 490,000 properties face a significant risk of flooding.
- ➔ Even if investment is kept at current levels there will be 350,000 more properties with a significant chance of flooding by 2035
- ➔ Socio-economic and climate change projections combined suggest that flood damages in the UK could increase by a factor of 20 by the 2080s if no adaptation measures are implemented

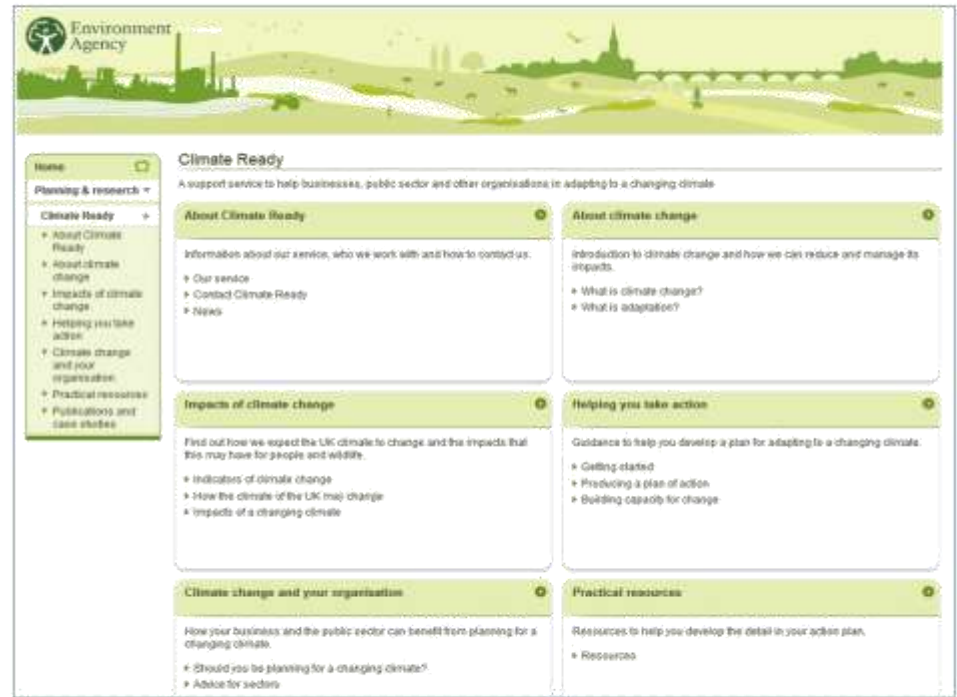


# Legislative framework



# Climate Ready support service

- ➔ Free, independent online advice and support
- ➔ Tailored support to help key sectors adapt



Vision: "A society which makes timely, far-sighted and well-informed decisions to address the risks and opportunities posed by a changing climate"



A support service led by the Environment Agency



# Seven key themes

- ➔ **Healthy & Resilient Communities**
- ➔ **Built Environment**
- ➔ **Local Government**
- ➔ **Infrastructure**
- ➔ **Natural Environment**
- ➔ **Agriculture and Forestry**
- ➔ **Business & Services**



[www.environment-agency.gov.uk/climateready](http://www.environment-agency.gov.uk/climateready)

A support service led by the Environment Agency

# Where are businesses now?

- Businesses are under considerable commercial pressure
- Some have „*started thinking about CC*“ - very few taken specific adaptation measures e.g. 90% SMEs have inadequate flood insurance
- The impact of extreme weather is not a recoverable loss:
  - The impact of the floods in 2007 cost the economy £3bn.
  - The heatwave of 2003 cost the economy £500m.
  - The cold weather in Q4 2010, cost the economy 0.5% of GDP
- If this scale of event were to happen 3 or 4 times a year this would have a significant impact on UK GDP



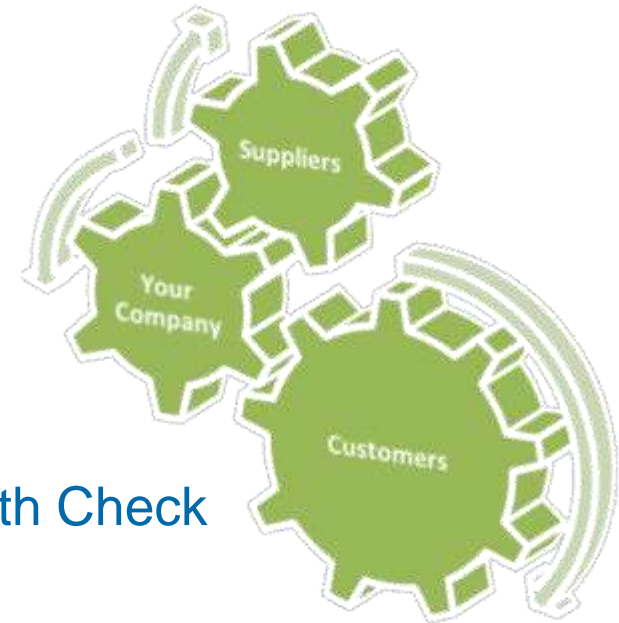
# Barriers

- ➔ Most businesses operate with short term planning
- ➔ Businesses do not see a 'business case' for adaptation
  - no immediate financial advantage
- ➔ There's no specific *market* for climate change adaptation advice and guidance



# Business Support

- ➔ Business case
- ➔ Supply Chain Guidance
- ➔ Working through others
  - ➔ Accountants - Business Resilience Health Check
  - ➔ Training and qualifications
  - ➔ Umbrella organisations
- ➔ Incorporating climate risks into business continuity standards



*Is your supply chain climate resilient?*

Find out & take action in 5 quick steps.

Step 1  
Climate change and your supply chain

Step 2  
Plan to respond

Step 3  
Assess risks and opportunities

Step 4  
Identify and prioritise options

Step 5  
Manage your risks



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# Flood and Coastal Erosion Risk Management Stakeholder Forum

Wednesday 10 July 2013

# Climate change and social justice



Katharine Knox, Programme Manager, Joseph Rowntree Foundation

# Issues to cover

1. Role of JRF
2. JRF climate change & social justice programme
3. Dimensions and issues of social justice
4. Programme to date



# Role and focus of Joseph Rowntree Foundation



**Mission:** lasting change for people and places in poverty, communities where everyone can thrive and a more equal society.

## OUR WORK THEMES

### POVERTY:

To identify the root causes of poverty and injustice

### PLACE:

To support resilient communities where people thrive

### AGEING

**SOCIETY:** To respond positively to the opportunities and challenges of an ageing society



# Climate Change & Social Justice Programme

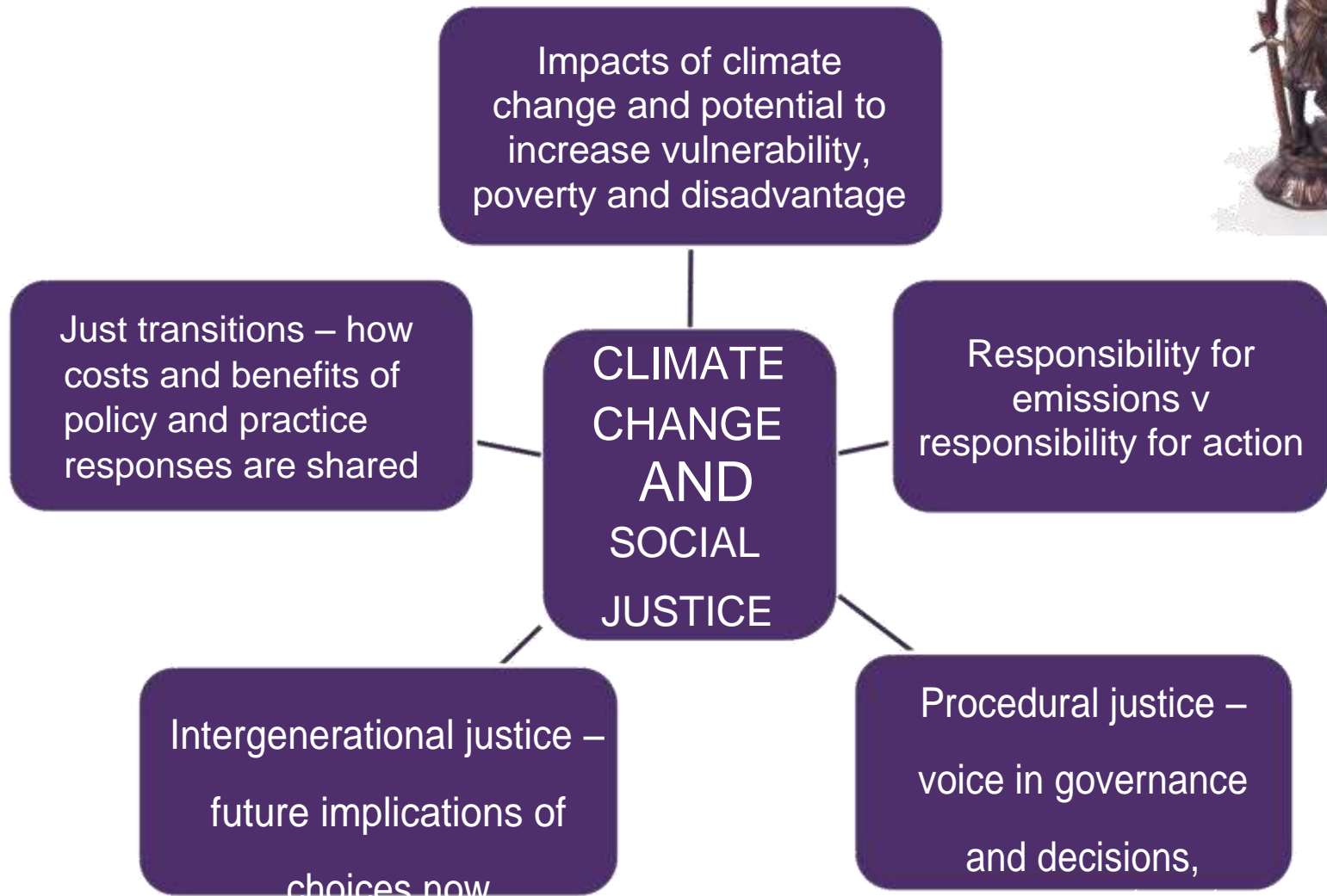
1. To examine social impacts and social justice implications of climate change for people/places in UK
2. To inform policy and practice responses to address needs of vulnerable people including those facing poverty/ disadvantage
3. To support social innovation and community resilience

*2009-date*

*Potential for further funding 2013+*

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# Why does social justice matter?





# What are the issues in responding to flooding in the context of climate change?

Protection

Risk



A just transition?

Resilience

# What are the issues?



# What is JRF doing?

## **Identifying impacts for people and places in UK e.g.**

- mapping social vulnerability to river flooding and heatwaves
- analysis of pluvial flood risk and relationship with deprivation
- examining issues for key areas e.g. disadvantaged coastal communities

## **Examining policy responses on mitigation and adaptation to ensure most vulnerable are protected e.g.**

- assessment of the distributional impacts of domestic energy policies
- examining justice of emerging adaptation responses
- analysis of policy opportunities/concerns e.g. future of flood insurance

## **Supporting innovation through JRHT e.g.**

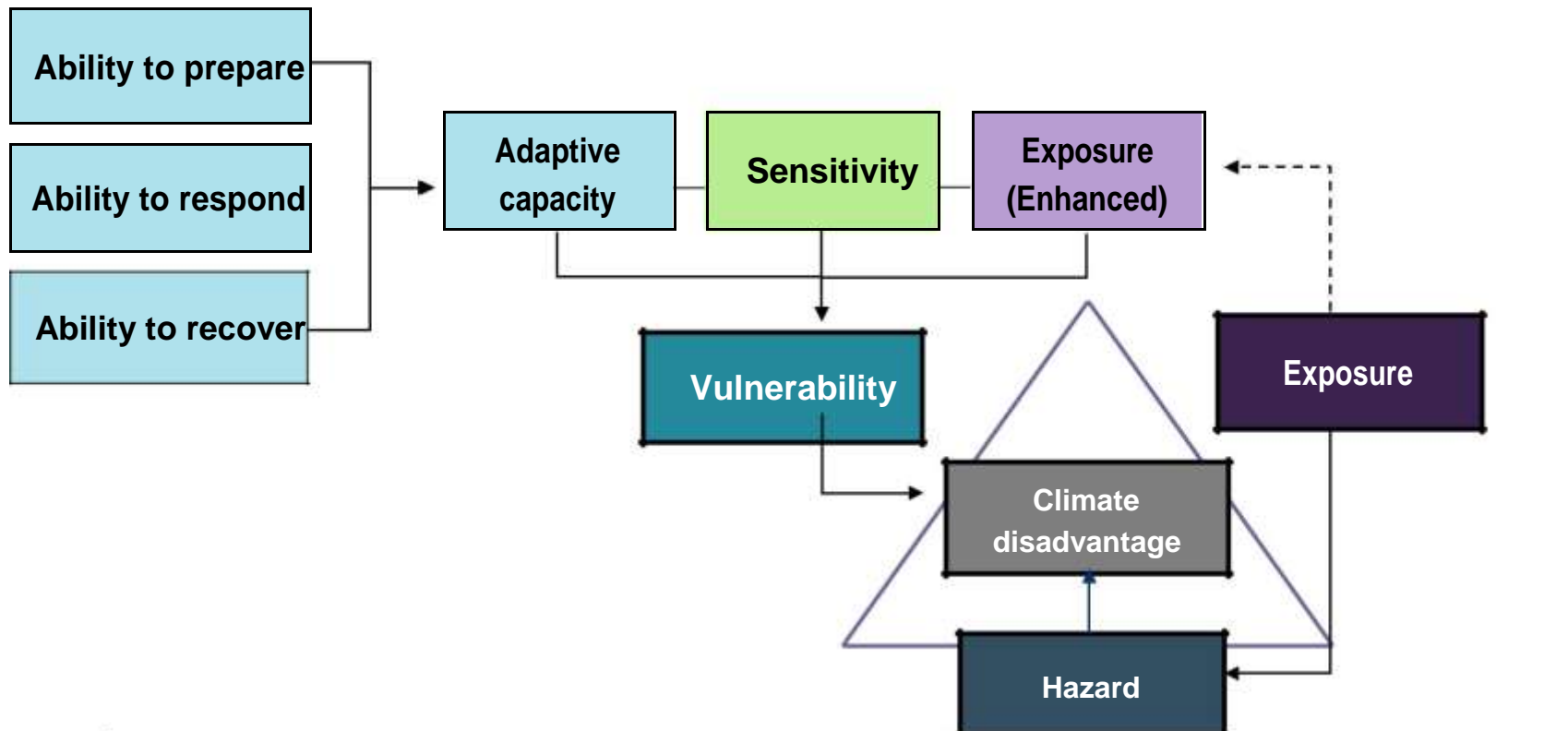
- Good Life initiative – New Earswick
- Energy efficient homes, supporting sustainable living/ behaviour change – Derwenthorpe

*Focus on flooding work in discussions today*

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# Who is vulnerable to climate change impacts?

- Vulnerability – personal, social and environmental factors
- Climate disadvantage = the likelihood & degree of exposure to a hazard e.g. flooding/ heatwave combined with vulnerability

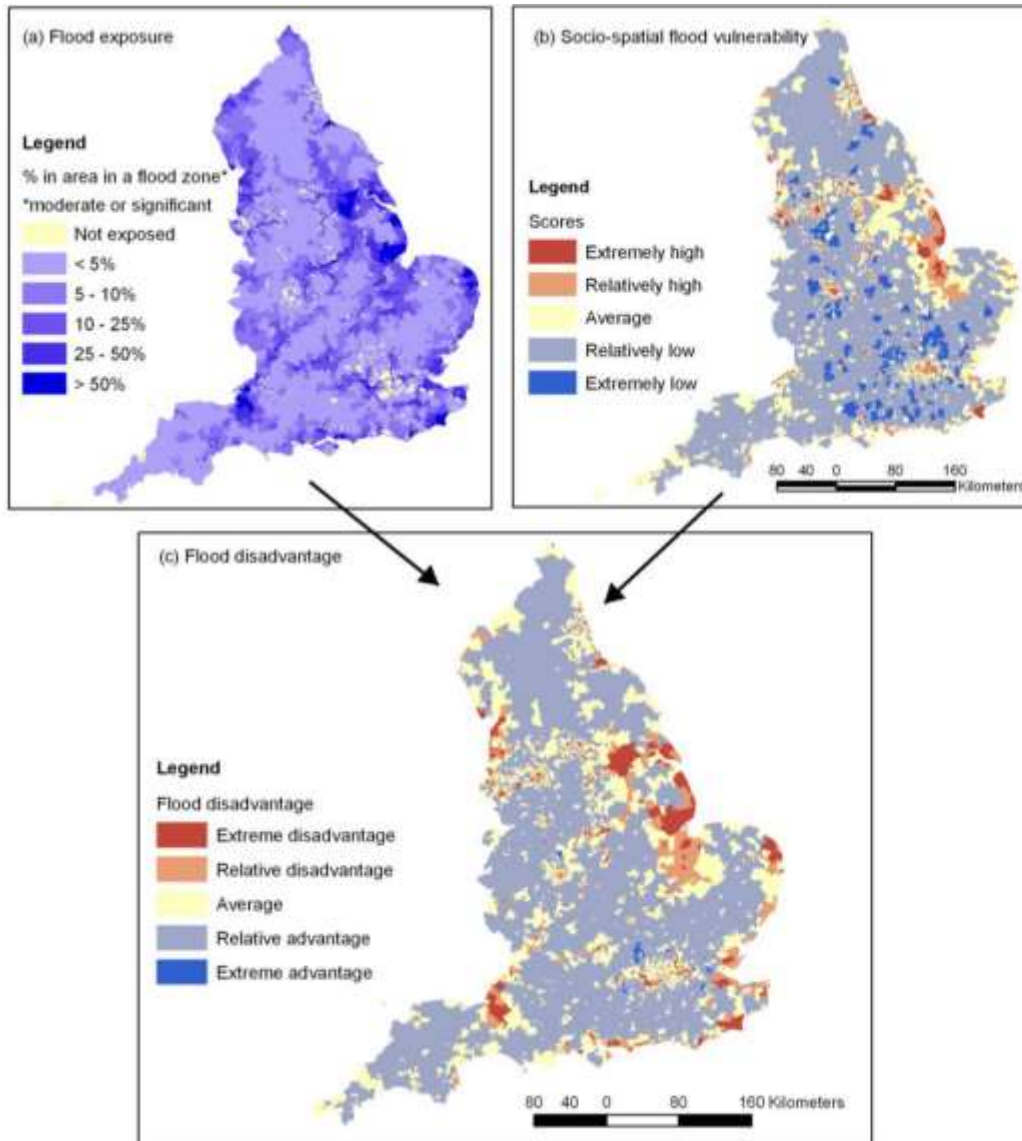


# Important factors affecting vulnerability

Adaptive capacity (social)	Sensitivity (personal)	Enhanced exposure (environmental)
Low income	Age (very young & elderly)	Neighbourhood characteristics (green/blue space)
Tenure: ability to modify living environment	Health status: illness	Housing characteristics: (e.g basement/ high rise/ single storey buildings)
Mobility and access to services	Special care	Buildings (ventilation/cool spaces)
Social isolation	Homeless, tourists, transient groups	High housing density
Information and local knowledge		
Access to insurance		



# Flood disadvantage in England (river/coastal)



- Some areas have both high socio spatial vulnerability and high potential for exposure to flooding
- Urban and coastal areas particularly vulnerable
- Most flood disadvantaged region is Yorkshire and the Humber (ie in this region social vulnerability coincides with high likelihood of flooding)

# How will we adapt?



- Access to affordable flood insurance a key concern
  - Increasing frequency of flooding in UK esp E&W
  - Increasing premiums for those flooded or at risk
  - Low take up among low income households
  - Limits to individualistic risk based approach to insurance
  - Threat of blight to communities at highest risk
  - Flood insurance a „gateway social good“
- Socially just adaptation critical nationally and locally
- Requires greater focus on social vulnerability

# Poverty and vulnerability to flooding

- Poverty is an important factor increasing social vulnerability to flooding
- But vulnerability goes beyond income/deprivation
- Also relates to adaptive capacity (coping strategies, preparation/response/recovery)
- Urban and coastal areas = most socially vulnerable areas in UK in relation to river flooding and heatwaves
- But pluvial flooding „invisible hazard“ accounts for about 1/3 of flood risk in UK
- Socially just approach to flood insurance a critical part of safety net
- Need to do more to support resilience for disadvantaged people and places

# For more information...

JRF climate change and social justice programme:

<http://www.jrf.org.uk/work/workarea/climate-change-and-social-justice>

Lindley et al (2011) Climate change justice and vulnerability

<http://www.jrf.org.uk/publications/climate-change-justice-and-vulnerability>

Houston et al (2011) Pluvial flooding : the invisible hazard

<http://www.jrf.org.uk/publications/pluvial-flooding-invisible-hazard>

O'Neill and O'Neill (2012) Social Justice and the future of flood

insurance <http://www.jrf.org.uk/publications/social-justice-flood-insurance>

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[@katharineknox](https://twitter.com/katharineknox)

*The invisible hazard: pluvial flooding  
in urban areas*

**University of Dundee**

Alistair Geddes

Alan Werritty

Andrew Hoolachan

**University of St Andrews**

Donald Houston

**JBA Consulting**

David Bassett

Marion McMillan

**JRF Climate Change and Social Justice Programme**

# Background

## Recent urban flooding

- Intense bursts of rainfall embedded within longer-duration storms – ‘month’s rain in less than 24 hours’
- urban drainage unable to evacuate resulting surface water runoff
- often in locations not identified as ‘high flood risk’ hence **‘invisible flood hazard’**



Cayton Bay, Caravan Park  
North Yorkshire: 6 July 2012



Breadsall, Derbyshire: 6 July 2012



# Policy context

- Pitt Review 2008
- Flood Risk Management legislation (2009, 2010)
- UK Climate Projections 2009 (UKCP09)
- UK Climate Change Risk Assessment 2012

**JRF** JOSEPH ROUNTREE FOUNDATION

You are here: [Home](#) / [Our work](#) / [Cross-cutting work](#) / [Climate change and social justice](#)

## CLIMATE CHANGE AND SOCIAL JUSTICE

How will climate change affect people and places facing poverty and disadvantage in the UK?



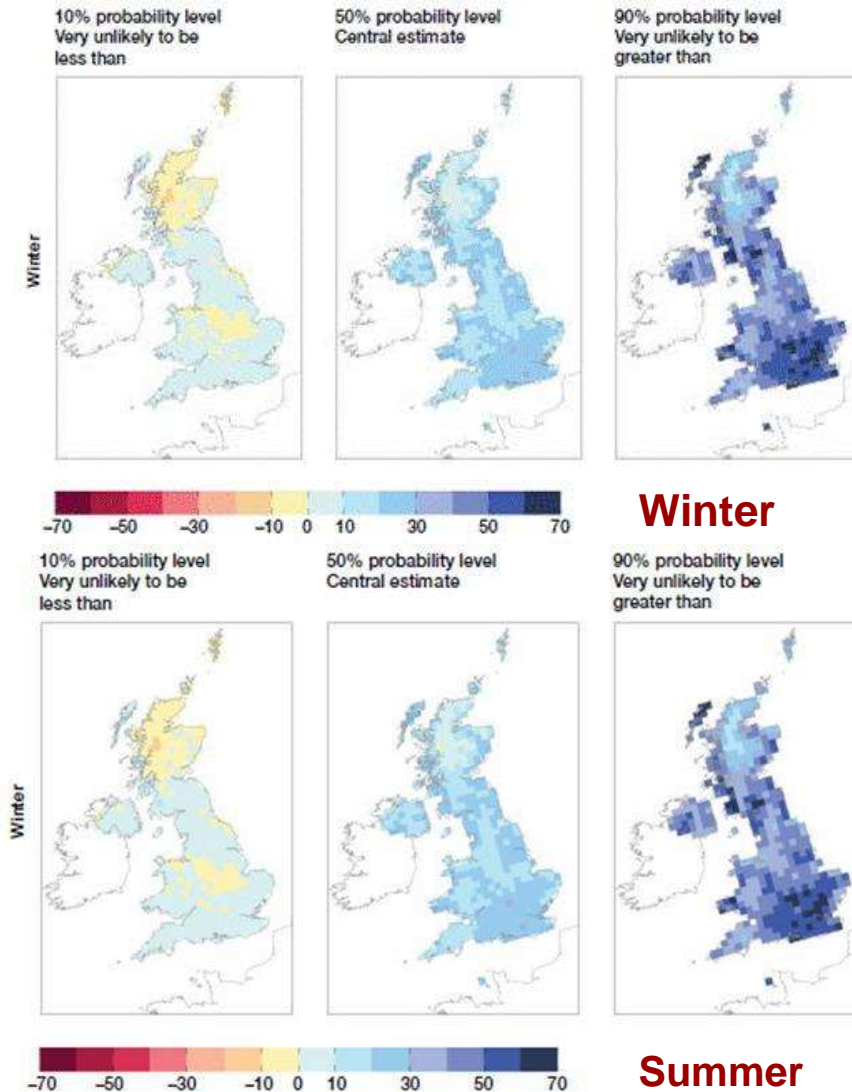
The image shows a person riding a bicycle through a flooded residential street. The water is murky and reflects the sky. In the background, there are several houses with gabled roofs. The scene illustrates the impact of flooding on communities, particularly those in vulnerable areas.



# Project aims

1. Estimate for UK regions urban populations at risk now and in 2050s, taking into account climate change projections and projected population growth
2. Assess socio-economic composition of at-risk areas.
3. Engage stakeholders to explore awareness and responses to pluvial flood risk.

# Climate change projections



**High GHG emissions: 2050s**

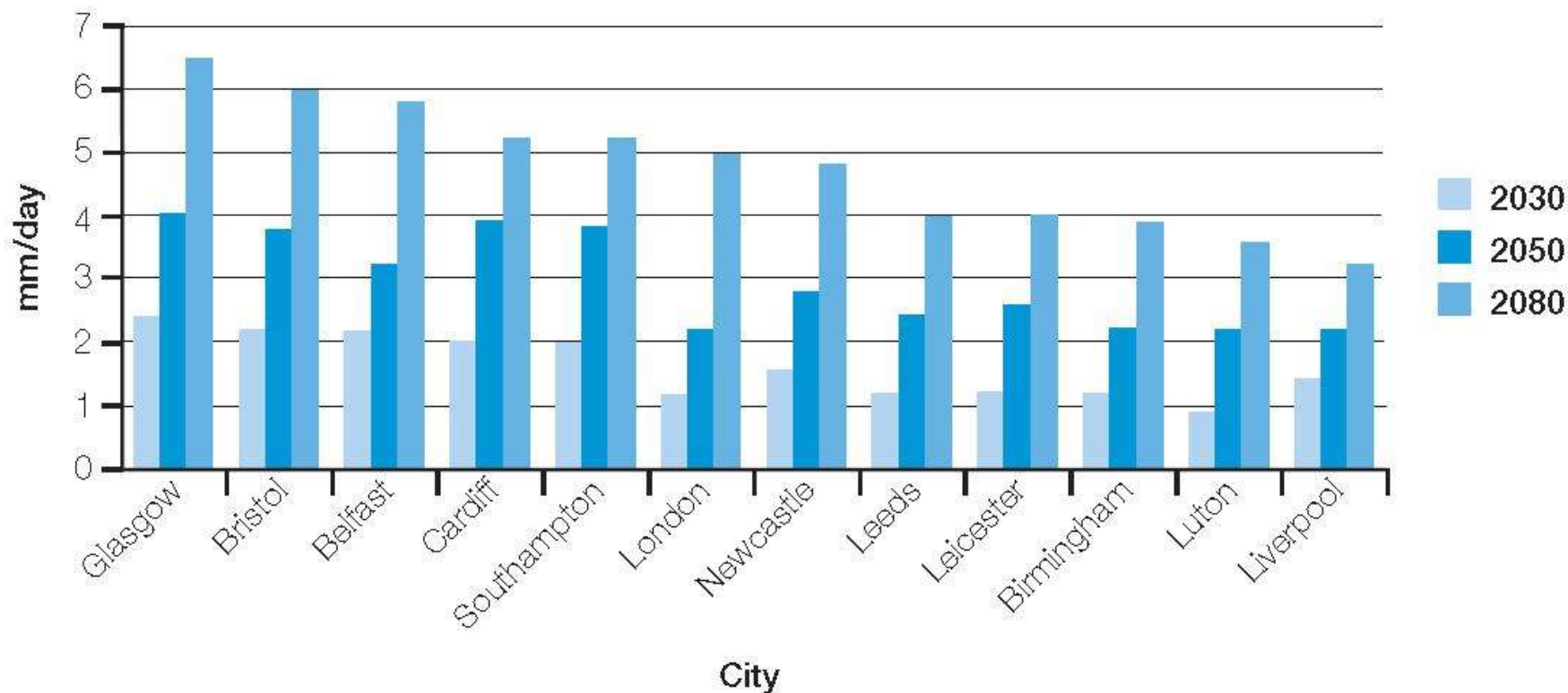
Projected % changes in rainfall on wettest day, relative to baseline period

**But** what of short intense rainfalls lasting a few hours?



# Extreme rainfall modelling: wettest day

Uplift in rainfall on wettest day 2030s–2080s: high emissions

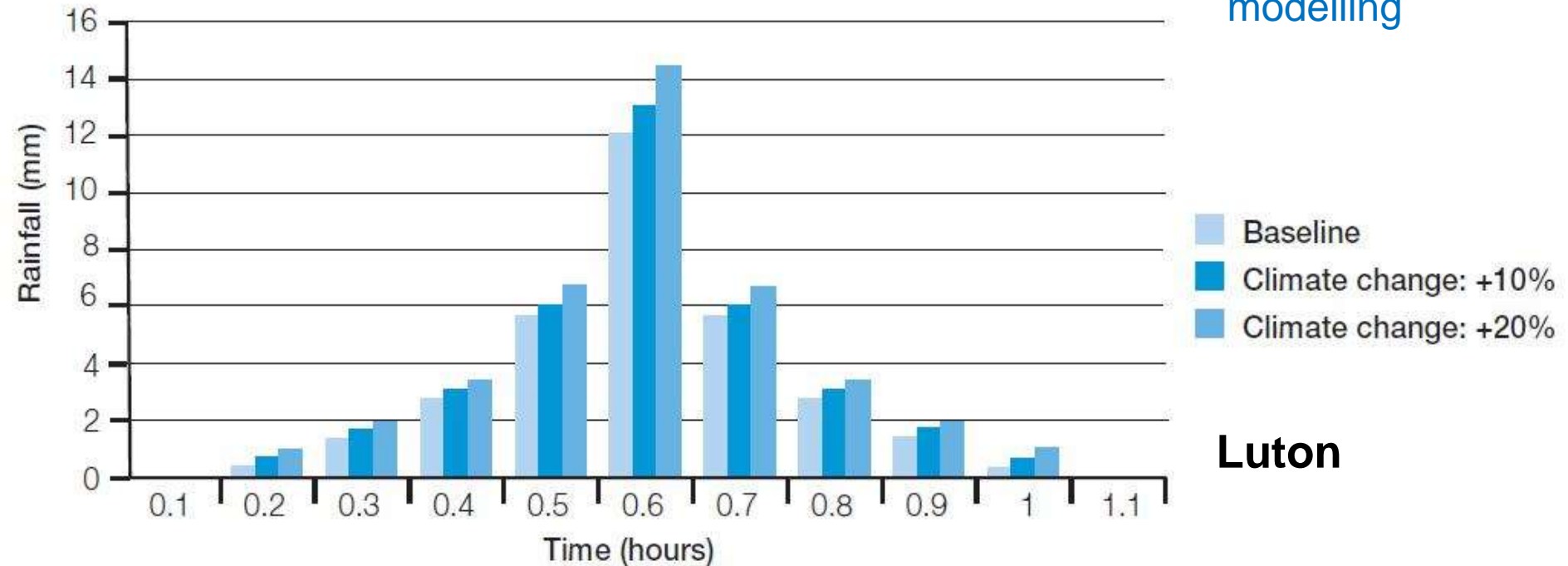


Uplift of 3-6 mm per day on wettest day: High emissions 2080s

# Extreme rainfall modelling: sub-daily

- 1 in 200 year rainfall for wettest 1.1 hr and 10.5 hr durations => resulting outlines merged
- Typical storm profile (summer)
- +10% and +20% allowances for climate change

**Flood Estimation Handbook:**  
Depth-duration-frequency modelling



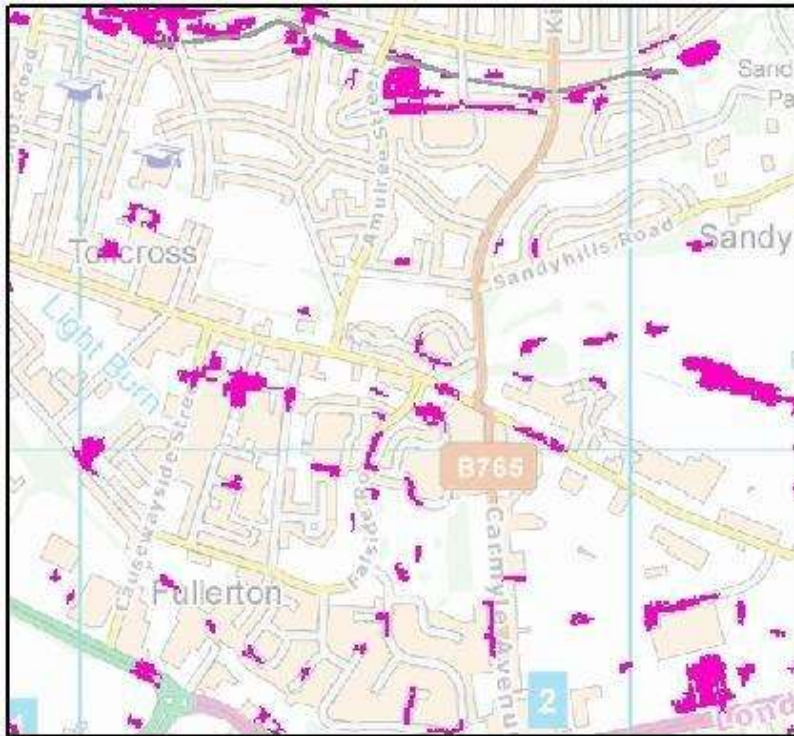
# Urban areas: modelling pluvial flooding

City	Recent history of pluvial flooding	Surface water management plan	Urban form	Age of infrastructure
Belfast	Yes	No	Victorian industrial	Victorian
Glasgow	Yes	Yes	Victorian industrial	Victorian
Luton	Yes	Yes	New town	Post-war



# Pluvial flood outlines

Example pluvial outline for  
Baseline event



Example pluvial outline for  
Climate Change event



Glasgow

# Glasgow: pluvial flood hazard





# National Estimates

BASELINE	
Current urban population	45 million
A. Population in at-risk locations	5%
B. Living at street-level or below	87%
	<b>= 1.9 million</b>
2050s	
C. Projected population growth (national)	45%
D. Projected increase in at-risk population due to climate change*	16%
	<b>= 900,000 Population growth</b> <b>= 300,000 Climate change</b>

\* Hazard of baseline rainfall +10% => +13% exposure in at-risk areas

Average increase in wettest day rainfall (2050s, medium emissions): 12.3%

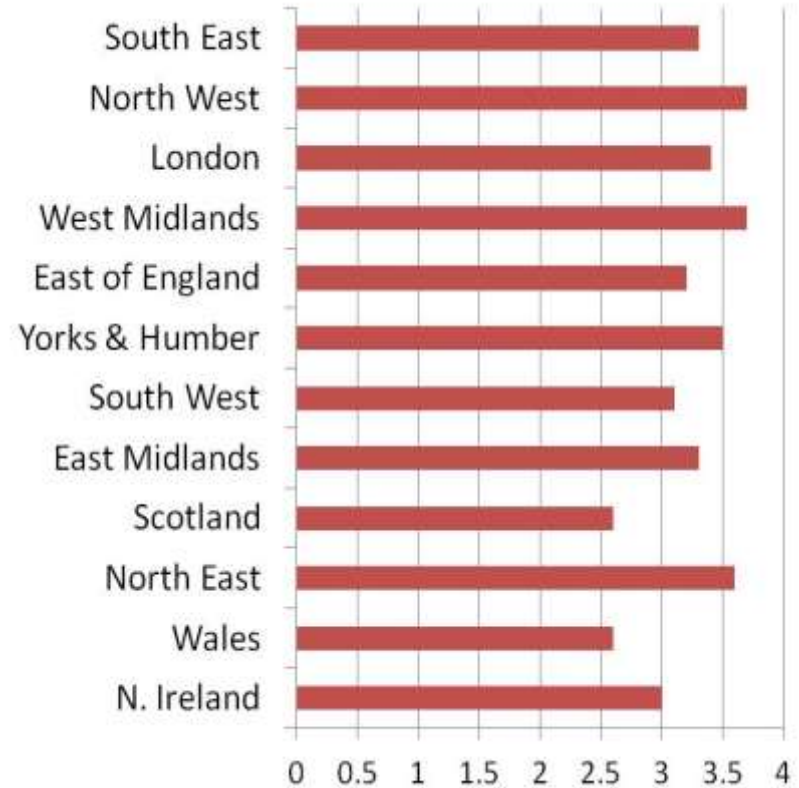
# Baseline Regional Estimates

(applying A & B)

## At-risk urban population

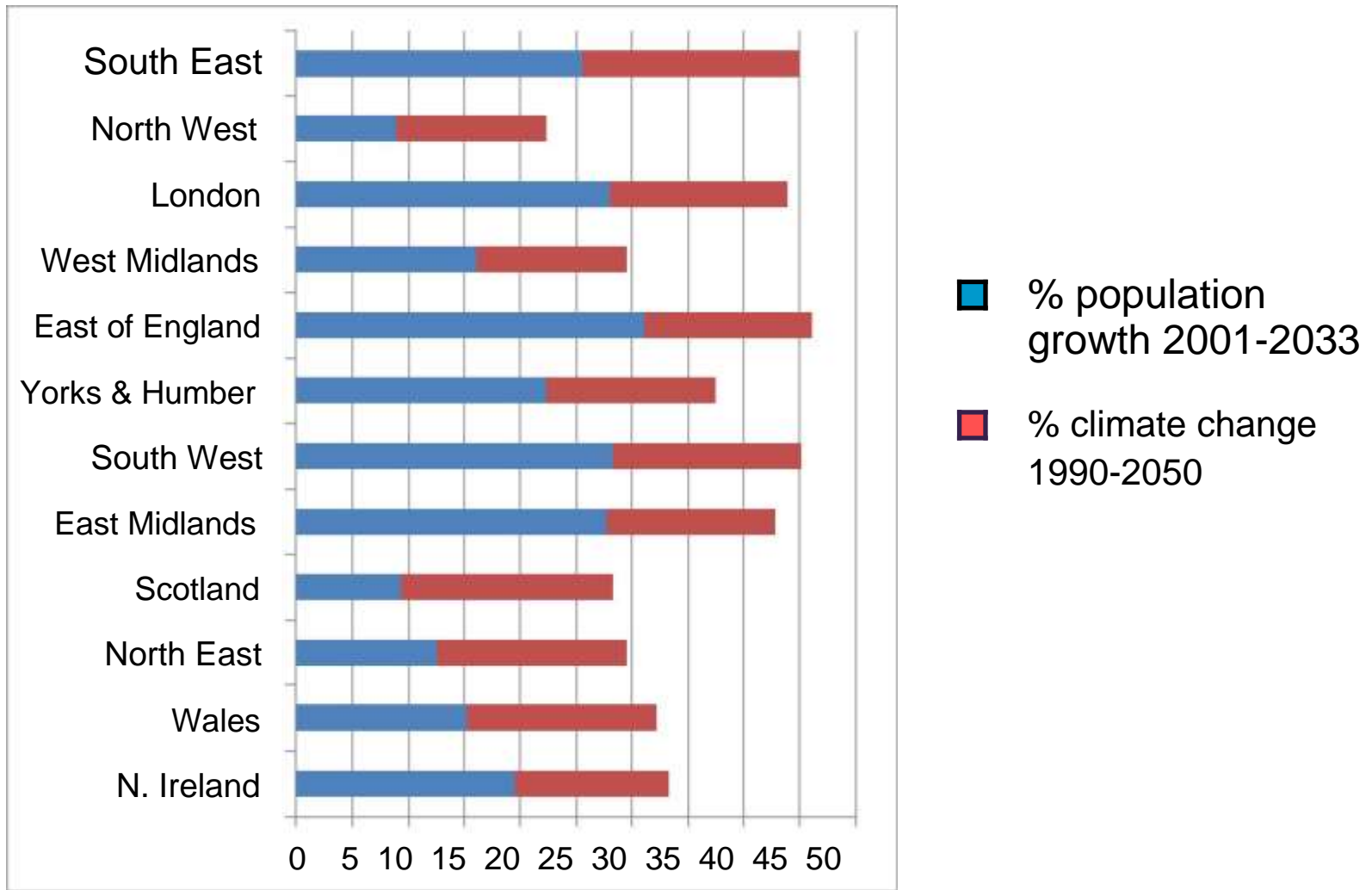


## % of overall regional population



# Components of change: 2050s

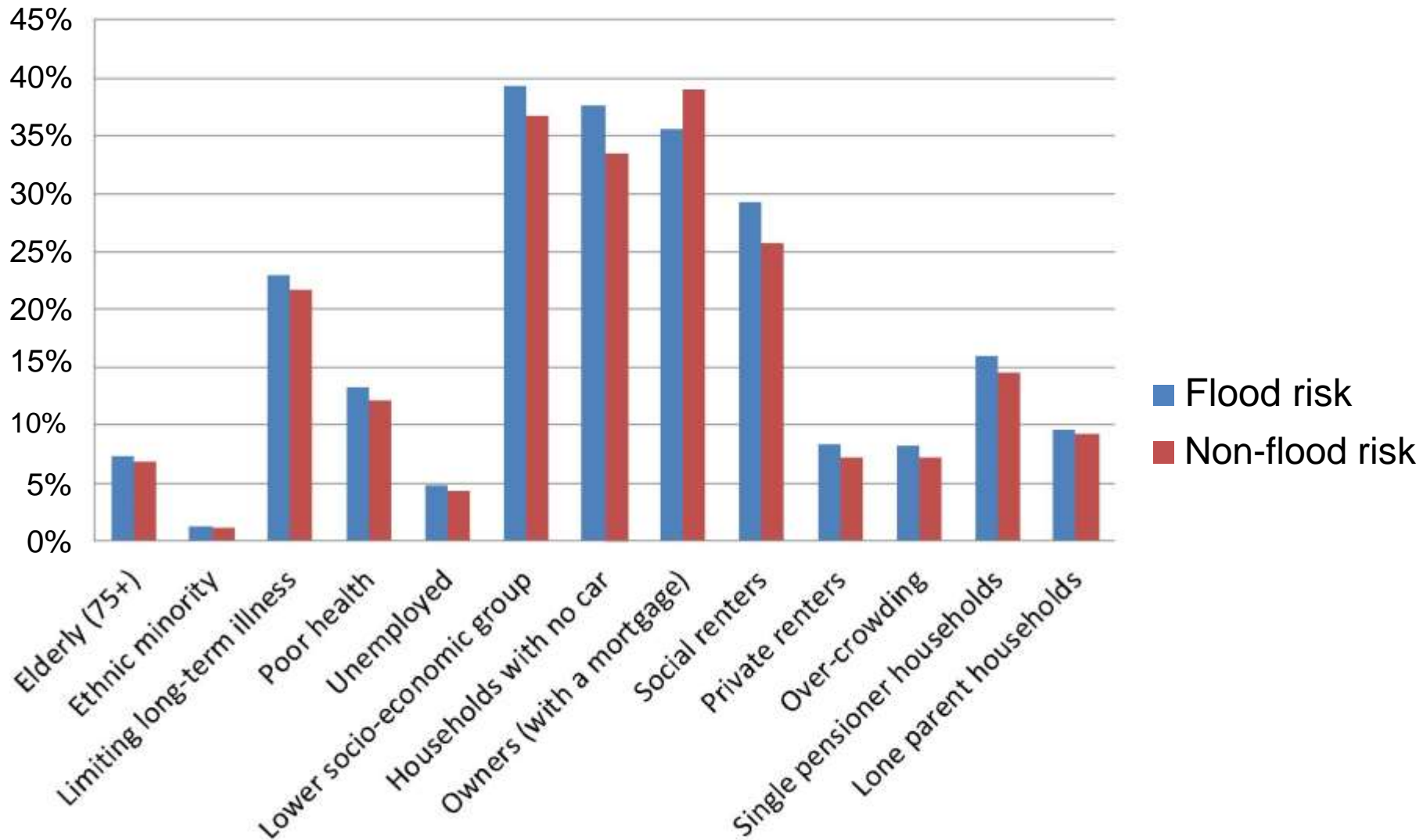
(applying C and D)



# Local vulnerability profiles: baseline

Socio-demographic indicator	Belfast			Glasgow			Luton		
	Flood risk areas	Non-risk areas	Diff.	Flood risk areas	Non-risk areas	Diff.	Flood risk areas	Non-risk areas	Diff.
Older people (75+)	7.4%	6.8%	0.6%	6.8%	6.9%	0.0%	5.3%	5.1%	0.3%
Ethnic minority	1.2%	1.1%	0.1%	3.7%	3.7%	0.0%	29.8%	28.0%	1.8%
Limiting long-term illness	22.9%	21.6%	1.3%	24.0%	23.8%	0.2%	15.9%	15.3%	0.7%
Poor health	13.3%	12.2%	1.1%	13.7%	13.5%	0.3%	8.4%	8.0%	0.4%
Unemployed	4.8%	4.3%	0.5%	4.9%	4.8%	0.2%	4.1%	3.8%	0.2%
Lower socio-economic group	39.2%	36.7%	2.5%	28.7%	27.9%	0.8%	30.0%	29.2%	0.7%
Households with no car	37.6%	33.4%	4.2%	48.0%	46.5%	1.5%	27.8%	26.3%	1.4%
Owners (with a mortgage)	35.5%	39.0%	-3.5%	36.4%	36.9%	-0.5%	43.4%	46.4%	-3.1%
Social renters	29.2%	25.7%	3.6%	35.7%	35.1%	0.6%	17.0%	16.4%	0.6%
Private renters	8.3%	7.2%	1.1%	4.7%	4.6%	0.1%	11.2%	10.5%	0.7%
Overcrowding	8.2%	7.2%	1.0%	18.0%	18.0%	0.0%	12.4%	11.5%	0.9%
Single pensioner households	15.9%	14.6%	1.3%	15.8%	15.6%	0.2%	11.4%	11.1%	0.4%
Lone parent households	9.6%	9.3%	0.3%	9.4%	9.1%	0.3%	6.9%	6.8%	0.0%
Households at street level or below	90.8%	92.6%	-1.7%	61.6%	63.8%	-2.1%	86.7%	88.7%	-2.0%

# Local vulnerability profiles: baseline (Belfast)



## Socio-spatial profile: key urban areas

Indicator (2001 Census)	Intensity of wettest day rainfall					
	High > 23 mm		Medium 17-23 mm		Low < 17 mm	
	Baseline	2050s	Baseline	2050s	Baseline	2050s
Poor Health (%)	10.5	10.7	10.3	9.7	9.2	8.6
Low Occupational Status (%)*	13.1	13.3	14.7	14.9	13.8	14.6

\* Long-term unemployed, in semi-routine or routine employment



# Key Findings

- c 1.9 million urban dwellers estimated as living in at-risk areas
- Population growth has potential to create c. 3x as many urban dwellers at risk than climate change
- More vulnerable households at slightly higher risk of pluvial flooding
- Important this not accentuated and vulnerability increased by changes to insurance provision in flood-risk locations
- Pluvial flood risk can be mitigated by avoiding highest risk locations, investment in drainage systems, flood proof building design and innovative surface water management schemes.





# Flood and Coastal Erosion Risk Management Stakeholder Forum

Wednesday 10 July 2013

# Coastal Change Adaptation Planning Guidance



Defra Stakeholder Group: 10<sup>th</sup> July 2013

Jeremy Pickles and Jennifer Kippax

East Riding of Yorkshire Council



**EAST RIDING**  
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# Introduction

## East Riding of Yorkshire Context

- Coastal Change Adaptation Planning  
Guidance
  - Project Context
  - Aims and Outcomes
  - Document Sections
  - Benefits
  - Consultation and Next Steps





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# East Riding of Yorkshire Coastline



Chalk cliffs at Flamborough: 17 km



Eroding cliff line: 48 km



Dunes at Spurn: 8 km



Defended frontages: 12 km





# Adaptation in the East Riding of Yorkshire

- Developing new approaches to coastal change management and using erosion monitoring data to inform decision-making
  - ICZM Plan (2002)
  - Rollback policies (2003 and 2005)
  - East Riding Coastal Change Pathfinder (2010 – 2012)
- Lobbying Government for continued assistance to support coastal change adaptation



# East Riding Coastal Change Pathfinder (2010-12)



- Multi-location, strategic approach to managing risk
- Relocation and adaptation support, tailored to the needs of the most vulnerable (**no** compensation)





# Project Context

## Review Coastal Change Pathfinder (CCP)

- Interview local authorities
- Publish report and initial conclusions

## Launch Project to Develop Adaptation Guidance

- Appoint project lead
- Establish dialogue between project lead and CCP authorities

## Release Project Tender

- Invite specialist consultants to bid
- Appoint successful bidder: Halcrow (a CH2M Hill company)



# Coastal Change Adaptation Planning Guidance



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# Project Aims and Outcomes

- ✓ A user-friendly guide for coastal practitioners
- ✓ Solutions tailored to locally-specific options
- ✓ A consistent process for establishing CCMAAs
- ✓ A better understanding of adaptation measures
- ✓ The basis for further „how to“ guides, e.g. on the subject of engaging with coastal communities on the topic of coastal change



# Coastal Change Management Areas (CCMAs)

“Local Planning Authorities should reduce risk from coastal change by avoiding inappropriate development in vulnerable areas or adding to the impacts of physical change to the coast.”

*Paragraph 106, National Planning Policy Framework*

Incorporate into Local Plans or policy documents by developing CCMAs



# Draft Guidance

- Section 1: Introduction
- Section 2: CCMA's and Mapping Techniques
- Section 3: Adaptation Approaches
- Section 4: Key Questions in Aiding Development of CCMA's through the Staged Process



# Section 2: establishing CCMA's

Stage 1: Review SMP Policies

Stage 2: Identify Risk

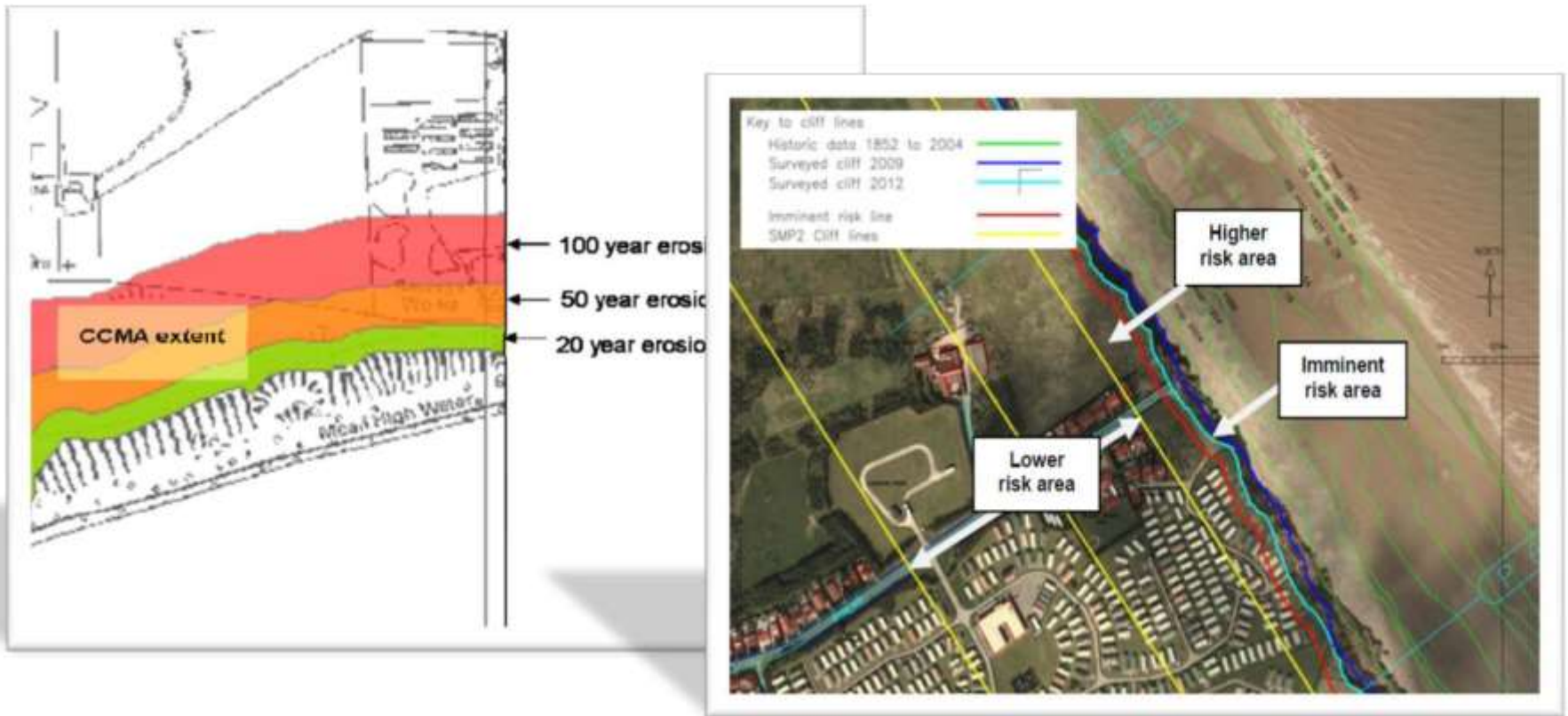
Stage 3: Map Areas of Risk

Stage 4: Deliver Adaptation  
through Planning





# Section 2: mapping areas of risk





# Draft Guidance

Adaptation Approaches	Coastal physical settings considered for adaptation				
	Cliffs	Beaches	Sand Dunes	Estuaries	Defended Coastlines
Rollback or relocate property, community facilities and infrastructure.	✓	✓	✓	✓	
Avoid development in vulnerable areas.	✓	✓	✓	✓	
Identify suitable type of time-limited (temporary) development that could occur.	✓	✓			
Ensure new development does not cause adverse effects / transfer coastal change risks to other areas.		✓	✓	✓	✓
Use area action plans / neighbourhood plans to manage future development in coastal communities.		✓	✓	✓	✓
Encourage new developments to incorporate green space to help manage future risks.				✓	✓
Introduce resilience measures to property / infrastructure where relocation is not possible. To support this, provide advice to developers / property owners / businesses on the measures they can take.		✓		✓	✓



# Benefits to Coastal Practitioners and Local Authorities

- A new mechanism to encourage the formation of consistent CCMA's nationally
- Sound processes for managing coastal change, all of which can be built into future policy
- A single source of adaptation case studies from across England, on topics including:-
  - Developing planning guidance linked to coastal change adaptation
  - Working with the community to plan for adaptation
  - Encouraging / incentivising rollback through planning policy



# Consultation

- Opened in June 2013 to key stakeholders including:
  - Chairs of Coastal Groups in England
  - Environment Agency
  - Defra
  - Local authorities (including those without CCP projects)
- E-mail [alan.frampton@ch2m.com](mailto:alan.frampton@ch2m.com) to
  - Request the draft guidance and consultation response sheet
  - Return your comments by 12 noon on Monday, 22<sup>nd</sup> July 2013



# Next Steps

- Review consultation responses and finalise guidance
- Disseminate draft guidance
  - Halcrow to release the guidance to Defra and Coastal Groups by early August 2013
- Launch and publicise guidance
  - Potential workshops
  - Online access and wider dissemination through a number of media channels



# Further Information

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## **Websites**

East Riding Coastal Explorer: [www.coastalexplorer.eastriding.gov.uk](http://www.coastalexplorer.eastriding.gov.uk)

Halcrow: <http://www.halcrow.com>



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# Flood and Coastal Erosion Risk Management Stakeholder Forum

Wednesday 10 July 2013

# Asset maintenance & agriculture

Defra/Environment Agency  
FCERM Stakeholder Forum  
10 July 2013



The voice of British farming

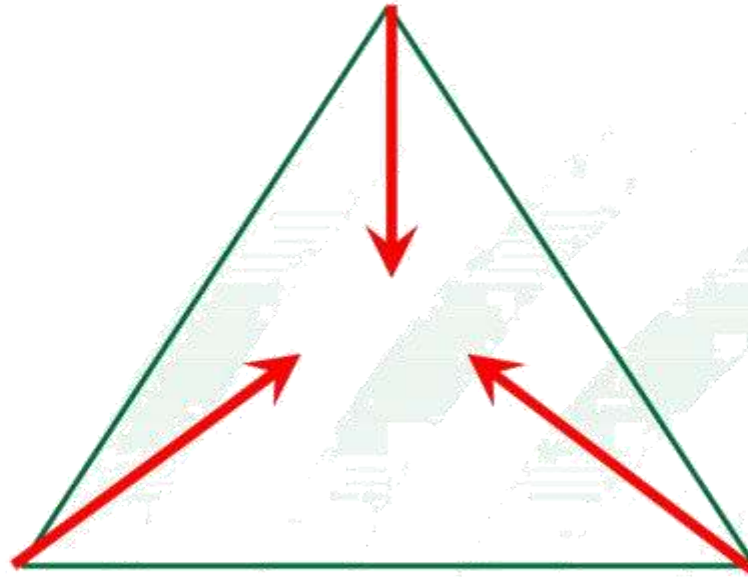




# Increasing pressures on rural flood risk

## Reducing rural maintenance

Reducing revenue budgets / increasing environmental barriers



Frequency of intense  
rainfall events exacerbated  
by development

Barriers/bureaucracy for farmers to  
undertaking or funding dredging and  
other maintenance

# What is the NFU seeking?

- **Clarity of the works and maintenance** the Environment Agency and other authorities plan to carry out each year.
- A **simpler process** that facilitates farmers wishing to carry out watercourse maintenance.
- **Rebalance funding** towards maintenance of watercourses and existing structures.
- **Value agricultural land**, especially grade 1-3a, more accurately so that decisions on flood protection and maintenance take account of food security.
- To challenge the apparent presumption against watercourse maintenance because of alleged **negative environmental impacts**.



# NFU activity to date

**Dec** Hosted a flood 'summit' meeting with members

**Jan** EA CEO and Director of FCERM attended NFU Council

**Ongoing** Shared strategy with EA on tackling rural flooding issues.

**Feb** Raised flood funding and maintenance issues with EFRA

**March** NFU Flooding issues group meeting

**April** Met Benyon and Heath in Somerset regarding dredging

**June** Returned comments to EA consultation on facilitating rural watercourse maintenance proposals and trials

**July** British Farmer and Grower article on watercourse maintenance under existing regulations



# NFU/EA Shared Action Plan

The EA and NFU are working together on a shared set of actions under three topics:

1. Improving the understanding around Rural FRM Funding
2. Improving evidence and understanding
3. Facilitating rural watercourse maintenance



# 3. Facilitating Watercourse Maintenance

Steps discussed with the Environment Agency:

1. Identify barriers – regulation ✓
2. Explain existing system of regulation. ✓
3. Trial simpler regulation in pilot catchments, for 1 year from Autumn 2013
4. Facilitate farmers nationwide to undertake maintenance work whilst retaining essential safeguards for the water environment.



# British Farmer and Grower article

**BRITISH FARMER & GROWER** **Farming pin-ups**  
Your free four-page practical guide

SECTION 12: WATERCOURSES - RIGHTS, RESPONSIBILITIES, MAINTENANCE AND REGULATION

**I**n an year saw extensive flooding to most communities up and down the country as the UK suffered the second wettest year since records began. Climate change is likely to give floods increasing periods of further rainfall and attention is once again turning to how we manage our watercourses to control flood waters. The Environment and Planning Act 2002 states that watercourses play a key role in managing water levels and reducing the risk of flooding. However, the responsibility for maintenance of watercourses can cause confusion. Here's our guide to understanding the roles and responsibilities of those who have land or property near to a river, stream or ditch.

*Put me out and pin me to your noticeboard!*

**DEFINITIONS**  
A WATERCOURSE IS ANY NATURAL OR ARTIFICIAL CHANNEL ABOVE OR BELOW GROUND THROUGH WHICH WATER FLOWS, INCLUDING A RIVER, STREAM, RICK, DITCH, MILL STREAM OR CULVERT, OR CHANNEL OR CONDUIT FOR LOCAL OR OFFICIAL MAIN SURFACE WATER.

**YOUR RIGHTS AND RESPONSIBILITIES**  
As a riparian owner you have a legal right to maintain the integrity of water flowing through watercourses across your land. **Maintaining the flow** - water should flow over your land at its natural quality and quantity and you have the responsibility to pass on the flow without obstruction, pollution or diversion. You should clear any ditches obstructing flow within the watercourse. **Do no harm** - banks should be kept clear of anything that could cause an obstruction and increase flood risk to you or those downstream and you should maintain any trees and shrubs growing on the banks. **Reducing the risk** - you have the right to defend your property from flooding, and your land from erosion. However, in most cases your plans for works will need to be agreed with the relevant flood risk management authority before you start work. **Fishing** - you usually have the right to fish in your watercourse but everyone over the age of 12 must have a valid rod licence from the Environment Agency.

**FLOOD RISK MANAGEMENT AUTHORITIES**  
Create and manage flood risk management authorities which have various powers and responsibilities around flooding. This is what they do:  
**ENVIRONMENT AGENCY**  
An independent body of flood risk management with a wide range of responsibilities as follows:  
- Floods from main rivers, reservoirs and the sea, carrying out maintenance work to undertake maintenance and restore activity to make by ditches on those watercourses that discharge into them.  
**COUNTY/UNITARY AUTHORITIES**  
Duties and responsibilities relating to the management of local flood risk from ground water, surface water and ordinary watercourses. An ordinary watercourse is one for which the local authority is responsible for the clearing and maintenance of watercourses to flow and for reviewing, maintaining and applying a local flood risk strategy.  
**DISTRICT COUNCILS**  
Have powers related to the prevention, mitigation and remedying of flood damage for ordinary watercourses and for managing flood risk as set out within planning laws.  
**WATER COMPANIES**  
Responsible for public sewers and public water supply.  
**HIGHWAYS AUTHORITIES**  
Duties and responsibilities to maintain and repair highway surface water drainage systems. This may either be a local authority or the Highways Agency. In some cases they may be the owners of such systems, but in others neighbouring landowners may be the owners of channels and can be required to undertake works.  
**INTERNAL DRAINAGE BOARDS**  
Cover about one sixth of England in areas of special drainage need, exercising a general supervision of all matters relating to managing water levels within their respective internal drainage districts. For land drainage contracts and undertakings they require the role of IFA within their District.

- Gives key definitions & authorities
- Explains riparian rights and responsibilities
- Explains conducting maintenance under existing regulations and consents
- Describes best practice for de-silting / dredging works
- Provides information on source control and reducing field run off



# NFU perspective to date

- Grateful for attendance by Environment Agency at NFU Council.
- Pleased to see similar concerns being expressed within EFRA Committee report and evidence from other organisations.
- Welcome consultation by Environment Agency on steps proposed to address agricultural flooding issues.
- More needed to address:
  - maintenance funding,
  - valuation of agriculture with FCERM,
  - working within environmentally protected rivers and catchments.
- Hope to continue constructive dialogue with EA, Defra and other stakeholders on key FCERM issues affecting agriculture.



# Our response

- listened and taken action
- improved access, content and engagement on our maintenance plans
- developed a co-operation agreement for working with IDBs and LLFAs
- made it clearer on the permissions needed
- consulted on an approach to reduce red tape



# Making it easier for others:

- to find out about and shape what maintenance is planned – from our website, roundtable meetings, depot open days.....
- to do work on our behalf - LLFAs and IDBs
- to do maintenance work themselves and protect the environment

# Shared approach to asset management and watercourse maintenance

# Next Steps:

- consider the comments received from stakeholders on how we propose to reduce red tape
- establish 8 pilot projects around the country as part of the catchment based approach
- trial and monitor new approaches and tools
- deliver better regulation and inform EPR
- share good practice and learning