

# Local Highways and Climate Resilience

## Climate Impacts in Yorkshire & Humber

15 July 2013



# your climate

*Supporting action for a resilient and low carbon future*

Our priorities in 2013-14 are to:

- Engage clearly and simply with businesses
- Build capacity and expertise across public, education and third sectors
- Develop project to support a resilient and low carbon future
- Influence and support Natation Adaptation Programme

# The Climate UK network

- 1 Sustainability East
- 2 Climate East Midlands
- 3 London Climate Change Partnership
- 4 Climate NE
- 5 Climate Change Northwest
- 6 Climate South East
- 7 Climate SouthWest
- 8 Sustainability West Midlands
- 9 Your Climate - Climate Change Partnership for Yorkshire and Humber
- 10 Climate Northern Ireland
- 11 Adaptation Scotland
- 12 Welsh Government



[www.climateuk.net](http://www.climateuk.net)

# extreme weather?

2000 – flooding	2008 – snow and ice
2001 – flooding	2009 – flooding
2003 – heatwave	2009 – snow and ice
2005 – flooding	2010 – flooding
2006 – drought	2010 – snow and ice
2006 – heatwave	2011 – drought / fire
2007 – flooding	2012 – drought / floods
2008 – flooding	2013 – cold / heat...

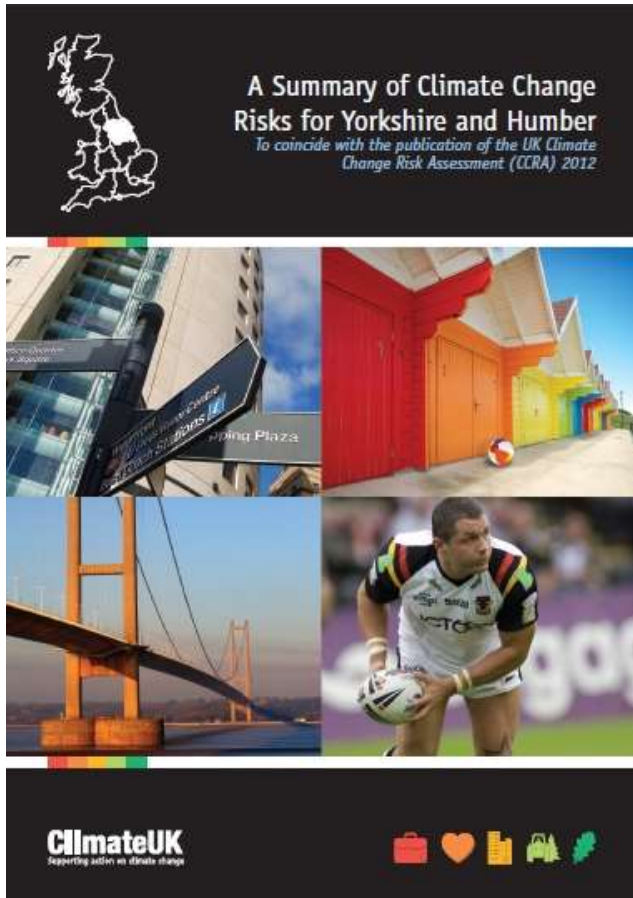
# evidence

- UK Climate Projections - UKCP09
- Regional Adaptation Study
- UK Climate Change Risk Assessment 'CCRA'
- Regional and local assessments





# Yorkshire & Humber risks



- c385,000 properties at flood risk
- Critical infrastructure at flood risk
- Multiple impacts on business
- High flood / deprivation correlation
- Exacerbation of health conditions
- Opportunity around manufacturing, research, tourism, agriculture...

# local transport and infrastructure

- Networked nature of critical assets have knock on effects
- Impact of snow and ice
- Impact of flooding particularly, but also high winds





Upper Calderdale Valley





**A659 over the River Wharf at Tadcaster**

# A1 closure



# why do we need to adapt?

- Not very well adapted to current climate
- A solely low carbon economy will still be vulnerable to climate/weather risks
- Forward thinking allows you to plan for changes not react to them
- Adaptation can provide wider benefits



*“For every £1 invested we can save £5, or possibly more, by acting now.”*  
*Sir Nicholas Stern, 2006*

# adaptation support

- local climate impact profiles
- risk assessments
- action plans
- working with sector experts
- adaptation network meetings



[www.yourclimate.org](http://www.yourclimate.org)



# further information



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# regional adaptation study

- Annual average temp between 1.8°C - 1.9°C
- Summer average temp up between 2.1°C - 2.5°C
- Extreme hot temp up between 2.8°C - 3.2°C
- Winter rainfall up by 12 – 17%
- Summer rainfall down by 22 – 26%
- Winter snowfall down by 54 – 68%
- Mean sea level increase of 0.35 metres...  
*with more severe surges.*