

Applied geoscience for our changing Earth



2012 - That was the year that was!

**Andrew McKenzie, BGS** 

### Setting the stage

#### theguardian TheObserver

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

Environment Drought

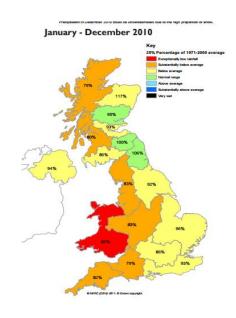
#### North-west England faces hosepipe bans after drought warning

Rivers and lakes at lowest levels since the 1960s after six of the driest consecutive months

John Vidal, environment editor The Observer, Sunday 20 June 2010

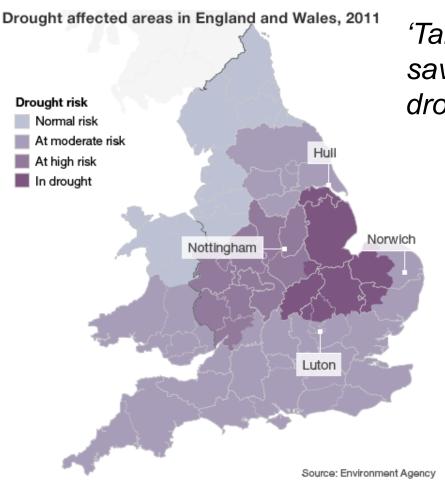


Thirlmere in the Lake District is only half full. Photograph: Steve Richards/Rex Features



'With extremely dry soils across much of the country (which will absorb most of the summer rainfall) this stress is likely to increase – underlining the need to moderate water usage in the drought-affected regions.'

#### Where were we in 2011?



'Take showers instead of baths to save water, minister urges as drought is officially announced'

'Substantially above average rainfall is needed over the next 10 - 12 weeks to improve the water resources outlook for the rest of 2012.'

'Euro in meltdown. France and Germany collude to redefine the EU. £30m trial collapses. And we are concerned about the WEATHER?'

## February – Drought declared in the South East!



20 February 2012 Last updated at 13:51

### Drought summit as rivers in England dry up

COMMENTS (443)

Environment Secretary Caroline Spelman has hosted a drought summit as parts of England struggle with groundwater levels lower than in 1976.

She invited water companies, farmers and wildlife groups to discuss the situation in south-east England, East Anglia and the East Midlands.

Ms Spelman said beforehand the meeting was to work out "preventative measures" that could be taken now.



Caroline Spelman, who chaired the summit, says people should start saving water now

'The UK needs a national water grid, similar to national power grid, but of course nothing will be done.
Temporary government does not have the will or inclination to structure the country properly.

There was a grand water plan back in Victorian times but it got no further than the aqueduct from Wales to Birmingham, which still operates. It needs people of vision to see such plans to fruition'



#### April – Hosepipe bans!

### BBC Inside Out 'Drought special'

Major investment by BBC and contributors – and real attention to getting the science right





'We have had a lot less rain than usual. However, most trees and grass are still green; the "shortage" is of water for human use in the UK and the reason for that is that there are so many of us and we keep growing by 400,000 every year. As with so many other problems, the long term water shortage would be solved by a sensitive but robust and responsible population reduction policy.'



### April/May – accounting for water



"It may be hard to believe but while the current account - our rivers and reservoirs - is looking very healthy, our savings account the natural storage basins deep below ground - remains in the red in four out of the seven river areas," said Richard Aylard.



#### Summer – and it's still raining!



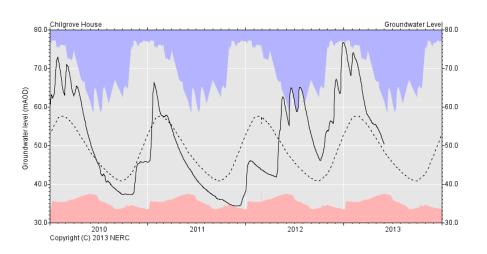


Rain delay: Crowds at Wimbledon shelter from a downpour vesterday

'For early September, aggregated stocks for England & Wales are the highest on record; more remarkably, average summer stocks through the summer of 2012 exceeded the average for December to February for all but the wettest winters'



# July/August – why did you scientists get it so wrong?





Six months ago it was going to be the driest year on record: Wrong Six months ago they said severe drought conditions would last all year: Wrong

Six months ago they said a hosepipe ban would last all year: Wrong Six months ago they said even if it rained everyday for nine months we'd still have drought because it was the wrong kind of rain and/or it couldn't soak into the ground and replenish the water table let alone our reservoirs: Wrong

Like most 'experts' these people really know nothing, at least nothing of any importance whatsoever. in the absence of nearrecord late-spring rainfall, recessions will continue with the prospect of overall groundwater resources being comparable with, or below, the lowest in the last 100 years by the autumn.'

### Winter – help I'm getting flooded!

#### Christmas flood risk remains with rain set for days



The risk of flooding remains for many, while others are starting the clean-up

Wet weather is set to continue until at least Friday, potentially bringing further flooding to parts of the UK, weather forecasters have predicted.

Heavy showers and gusty winds will move eastwards across England and Wales on Christmas Day, but parts of central and eastern Scotland should stay dry.

The Environment Agency (EA) said many places will stay on flood alert despite a slight easing of weather conditions.

Related Stories

Christmas flooding threat eases

Engineers assess landslip damage

In pictures: Flooding damage

'Those who build their homes on sand can expect them to collapse. Likewise if they will keep allowing people to build on flood plains and affect the natural drainage what can anyone expect other than floods. A lot of regulations about planning and building permissions but obviously not the right ones!'



# 2013 – Did someone mention drought (or floods....)?

#### Prof Sir John Beddington warns of floods, droughts and storms

COMMENTS (1001)



By Pallab Ghosh Science correspondent, BBC News

The UK government's chief scientist has said that there is already enough CO2 in the atmosphere for there to be more floods and droughts over the next 25 years.

Prof Sir John Beddington said there was a "need for urgency" in tackling climate change.

He said that the later governments left it, the harder it would be to combat.

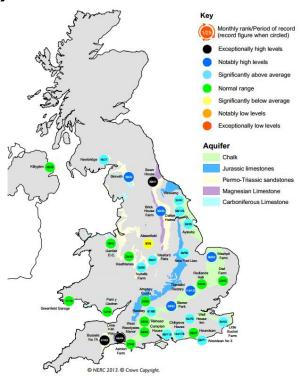
Prof Beddington made his comments in the final week of his tenure as the government's chief scientific adviser.

"The [current] variation we are seeing in temperature or rainfall is double the rate of the average. That suggests that we are going to have more droughts, we are going to have more floods, we are going to have more sea surges and we are going to have more storms.

"These are the sort of channes that are doing to



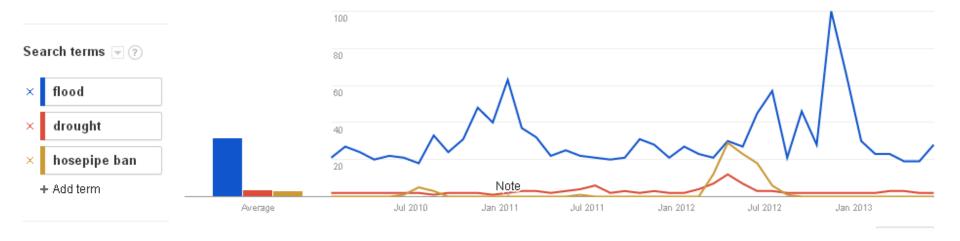
Prof Beddington fears more flooding is likely



'Government's Chief Scientist warns of floods, droughts, and storms. Great news! We can look forward to a period of moderate settled weather.'



#### So what did I learn in 2012?



- People care about the issue when it gets personal!
- Drought is our (govt, scientists, water companies, engineers) fault
- Floods are mainly acts of god, or possibly down to the council!



### How do we respond to the media?

- If we offer a simple, coherent, idea up in response to media requests you can maintain some control over the process
- Facts are sometimes embarrassingly hard to find!
- Why I never made it big in media
   no short term verbal memory
- You need metaphors literal for radio, visual for TV





