

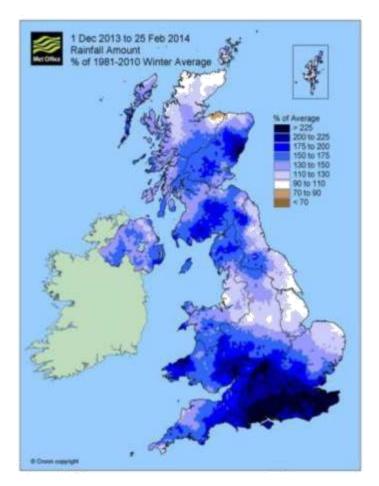


Flood and Coastal Erosion Risk Management Stakeholder Forum

Thursday 8 May 2014

December 2013 to February 2014

- Wettest winter in England and Wales in nearly 250 years
- Southern England experienced:
 - wettest January since 1910
 - wettest December for 50 years
 - fourth wettest February since 1910









Tidal surge December 2013



5 December saw the most serious tidal surge in over 60 years, here's a look at some of the facts surrounding the event:

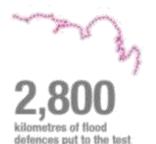






saw highest tide since the Thames Barrier's completion in 1984







flood warnings in place across the UK

at the peak

"Our thoughts remain with those people who have been affected by flooding"

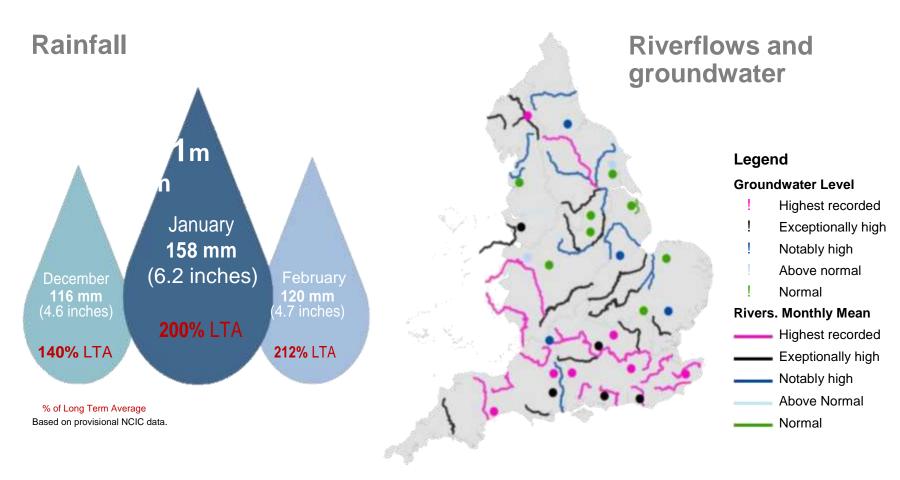
along the coast

- Paul Leinster, Chief Executive, Environment Agency





Rainfall, groundwater and riverflows











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Thursday 8 May 2014



Reflections on the winter floods

Name Paul Cobbing

Date 8th May 2014



Impact





Health...

- People who were not insured for flooding
- Is this a hidden dimension?







Insurance



- The claims process
- Timeliness
- The drying process



Recovery









- Recovery is a process
- Getting in quickly is important
- Recovery takes 12 –
 18 months
- Very variable approach
- Service delivery vs meeting people's needs
- Repair and Renewal Grant



Recovery as an opportunity









What we need to do to build community resilience









Supporting and representing flood risk communities



Questions?

Paul Cobbing

0777 3355 181 paul.cobbing@floodforum.org.uk

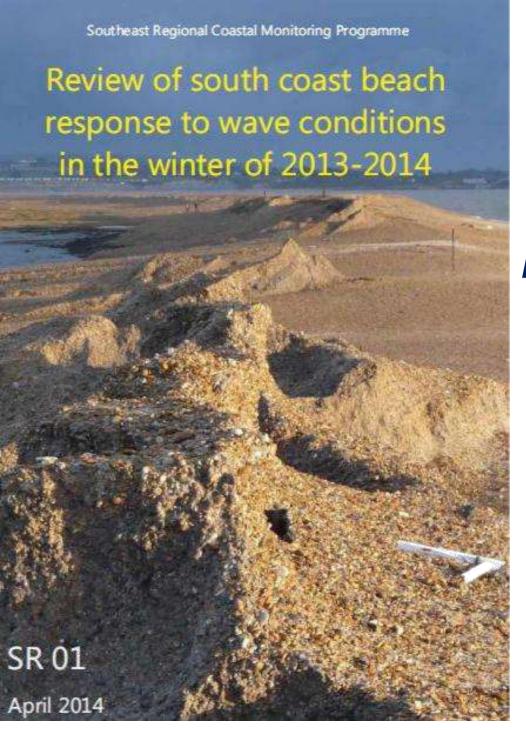
www.floodforum.org.uk





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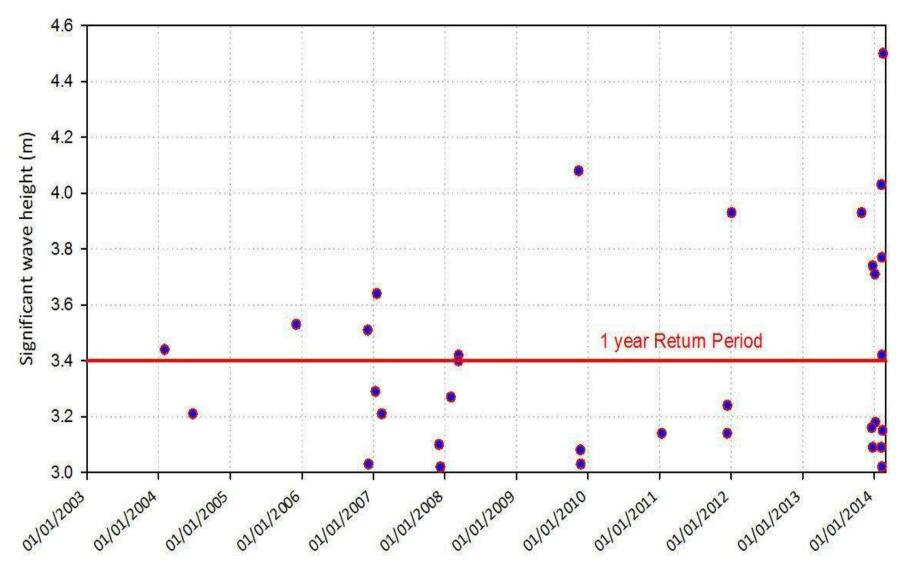
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Prof. Andy Bradbury and Dr Travis Mason



Storm calendar for Milford



Since 2003, 15 individual storms have exceeded the 1 year Return Period. 7 of those storms (47%) occurred between October 2013 and February 2014



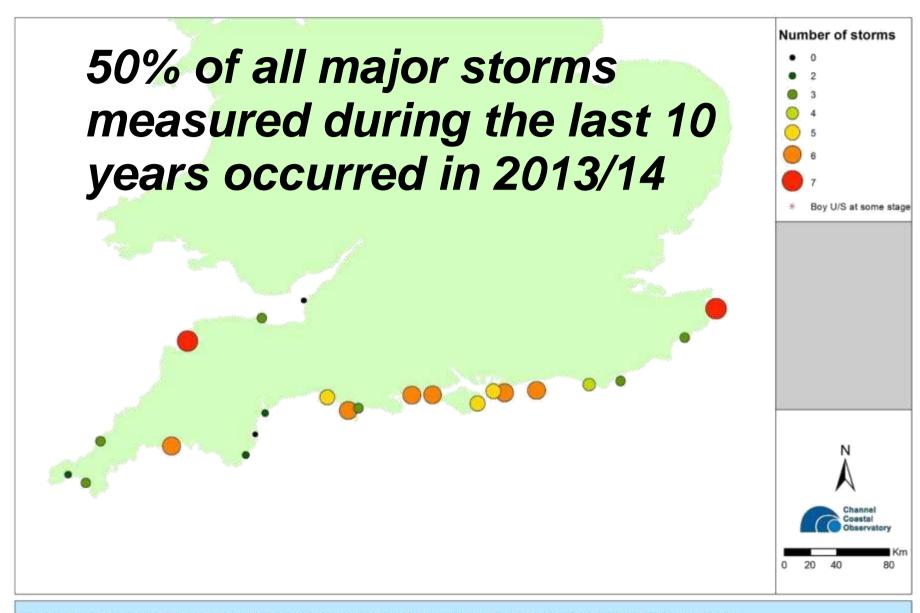
Most severe storms at Milford-on-Sea since 2003

Date	Wave height (metres)	Return Period
14/02/2014	4.5	1 in 50 years
14/11/2009	4.1	1 in 10 years
05/02/2014	4.0	>1 in 5 years
03/01/2012	3.9	1 in 5 years
28/10/2013	3.9	1 in 5 years
08/02/2014	3.8	> 1 in 3 years
24/12/2013	3.7	1 in 3 years
03/01/2014	3.7	1 in 3 years
18/01/2007	3.6	1 in 2 years
02/12/2005	3.5	> 1 in 1 year
03/12/2006	3.5	> 1 in 1 year
31/01/2004	3.4	1 in 1 year
10/03/2008	3.4	1 in 1 year
08/02/2014	3.4	1 in 1 year
10/03/2008	3.4	1 in 1 year



Storms exceeding 1 year Return Period at Milford-on-





Coastal Wave Network - total number of storms exceeding 1 in 1 year Return Period, October 2013 to February 2014









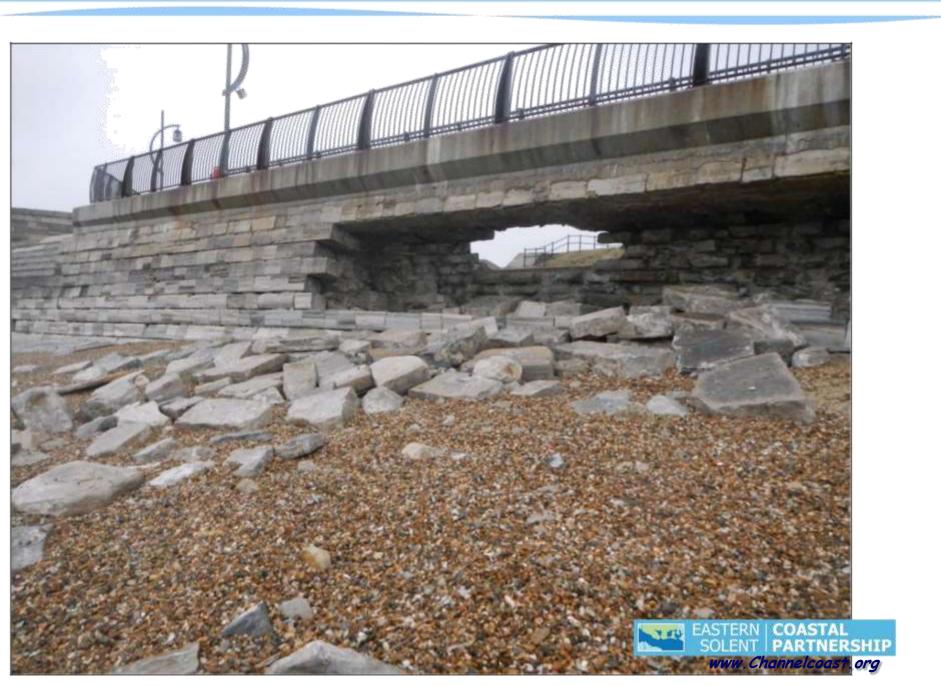
6aSU02 - Chiswell Beach

Some sites which had been generally accreting over the previous 10 years experienced large scale erosion

www.Channelcoast.org



Recent Storm Events – Long Curtain Moat, Portsmouth













Winter 2013-2014 beach management operations

Site	Winter operations	
Folkestone	5 times the usual recycling	
	operations this winter	
recycling Pev	Near continuous ensey from November to	
	February	
Eastbourne	4 times the usual replenishment volume was	
	needed to restore beach to pre-storm condition	
Hayling	4 times normal beach operations to maintain	
Island	beach	
Hurst Spit	5 times normal maintenance recycling	

www.Channelcoast.org



5aSJ01 - Medmerry Managed Realignment Site

Beach losses were lower at some sites where supply of beach material is limited, with the result that at some sites the beach was completely stripped from the bedrock



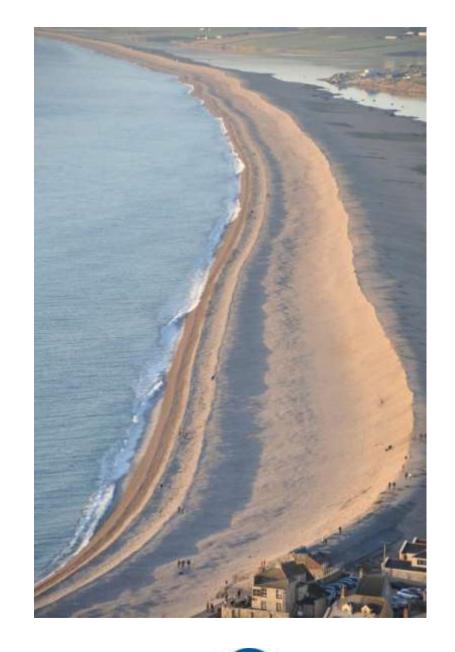


 Losses were highly variable due to differences in beach orientation and the number/size of storms



Erosion rates and natural recovery

- Erosion rates greater than 25 times the annual average were observed at numerous sites
- Average beach volume losses of 25,000 m³ per km of coastline length were typical
- At some sites, the sediment loss is likely to be temporary, and natural processes are expected to partially rebuild the beaches





Financial and planning implications

- The timing of all beach management schemes identified in the medium term plan should be reviewed and where necessary re-phased
- The volumes of material required for recycling or recharge should be re-assessed for each scheme; this is likely to increase immediate demand by at least 1,000,000 m³ (£25-30m)
- Provision should be made for the supply of additional beach recharge material to allow sites to return to the previous level of service, which is now significantly reduced at many locations





Flood and Coastal Erosion Risk Management Stakeholder Forum

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The Winter Flooding: A Natural England View

Rob Cathcart

Senior Specialist Freshwater & Wetlands

Nature and the floods

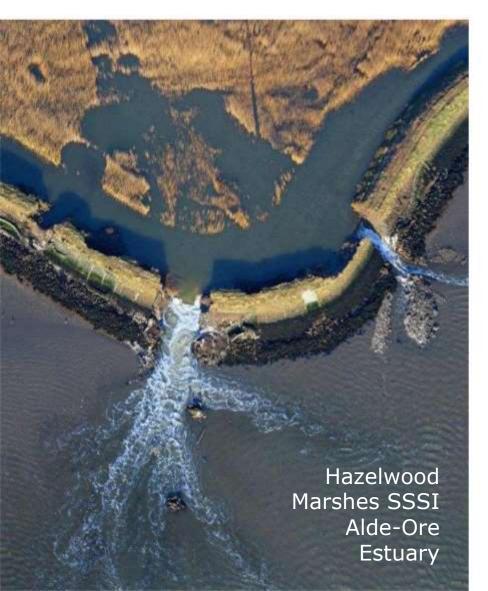


- 50 coastal SSSIs and 5,000 ha flooded by December storm surge, including 22 National Nature Reserves
- Extensive river flooding of SSSI wetlands in January including 6,000 ha across the 14 Somerset Levels SSSIs
- Damage to site infrastructure and livestock losses
- Severe but <u>seasonal</u> winter flooding tolerated by floodplain habitats and species – full recovery in time



Natural England's role



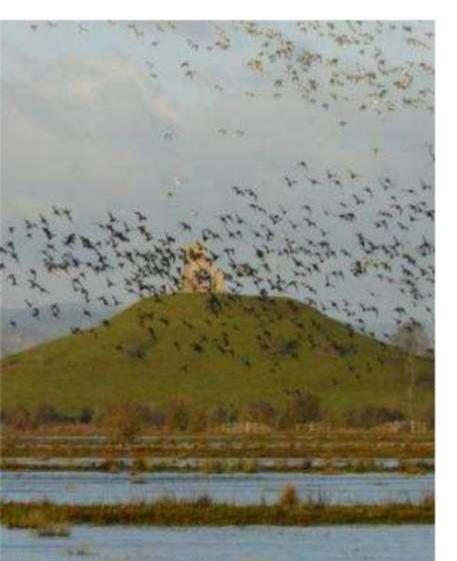


- Supporting flood operating authorities
- Facilitating emergency works and practicable solutions
- Test and Itchen SSSI flow diversions to protect Stockbridge and Winchester
- Working with landowners to support recovery through Environmental Stewardship and CSF
- Somerset Flood Action Plan
- Seeking sustainable solutions for hard-hit coastal sites



Challenges





- Making Space for Water
- Pitt Review lessons about working with natural processes
- Restored ecosystems' potential for attenuating and storing flood flows
- Clear understanding of relationship between nature conservation and flood risk management
- Adaptive, multi-functional landscapes – for agriculture, nature and flood risk management





Flood and Coastal Erosion Risk Management Stakeholder Forum

Thursday 8 May 2014



Reflections on the Winter Floods







Winter 2013-14

- 2,700 ha agricultural land flooded by Tidal surge in December
- 48,750 ha flooded during one week in mid-February 2014
- Still too early to fully assess financial cost to farming.

2012

- Second wettest year on record for UK.
- Between 28-30 November 2012 alone 43,000 hectares of farmland was flooded
- 414% decrease in the bottom line for agriculture.
- Total farming income fell by £737 million.







The impact on agriculture Direct

e.g. crop losses; fatalities and injuries to livestock; damage to soil, damage to buildings and farm infrastructure, damage to stored materials

Direct induced

e.g. Future loss of yield, reseeding grasses, replanting crops, repairs, relocation or premature sales of livestock, overwhelming increase in work.

Indirect

e.g. Loss/disruption of supplies, increased transportation costs/travel time, business interruption, change in local character change (if a large number of farmers were to go bankrupt/abandon farming in an area)







Farming Recovery Fund

- Recognised need for farmers to access assistance to restore agricultural productivity
- Only 5% of estimated £50 million cost to agriculture in 2007 floods insurable
- £10M Fund aimed at soil restoration, grassland re-seeding, boundary repairs, field drainage and repairs to trackways.
- Application process, commencement of works and retrospective funding have been crucial issues
- Moving to estimated fix costs critical to uptake of the scheme.









Working together: Easier ways to enable river maintenance



River Maintenance Pilots

4. De-silting your watercourse

De-sitting is when you remove fine sift and sediment that has collected in a river or channel, it is different to dredging, which is when you deepen and widen channels. Dredging on main river requires Environment. Agency consent. Figure 2 illustrates the difference between de-sitting and dredging.



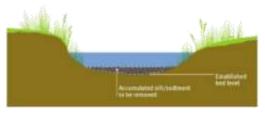
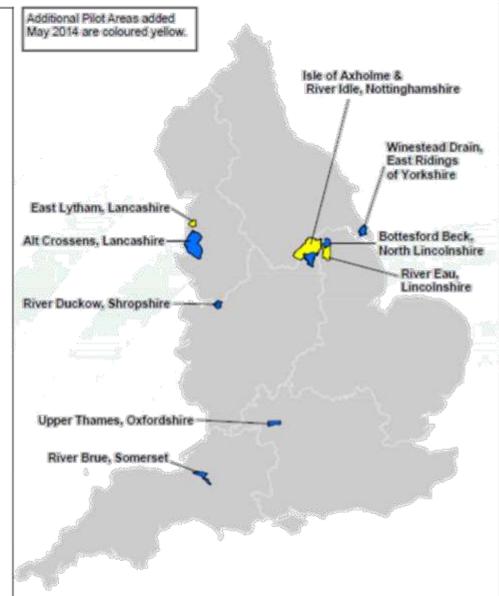






Figure 2: Difference between a de-sit and a dredge

- You must spread the removed slit thinly, away from the bank and the immediate bank top area, but not on the slope of the bank. It is preferable to do it within a single movement of the machine's reach, but not obstructing any public right of way.
- You must walk along the spoil heap regularly and return any animals, such as fish and mussels that you have removed during de-sitting to the watercourse immediately. We recommend every 30 minutes.
- You should work in an upstream direction and from one bank of the watercourse only, unless it is unsafe for the driver of the machine. Working in an upstream direction reduces the risk of silt being washed downstream and causing pollution.
- You should plan where to put the sitt you remove before you start work to make sure that it won't cause an environmental issue and that it won't wash or fall into the channel again.



Run-off, soil and infiltration

- Recognise that agriculture has an important role to play
- But given extreme rainfall event may have had limited impact
- Farmers already tackle run-off issues through Soil Protection Review and watercourse buffers
- Range of issues, potential solutions and costs
- Greater research and evidence needed at catchment scale
- Benefits to society need to be valued













Flood and Coastal Erosion Risk Management Stakeholder Forum

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National flood emergency co-ordination





FLOODFORECASTINGCENTRE

a working partnership between



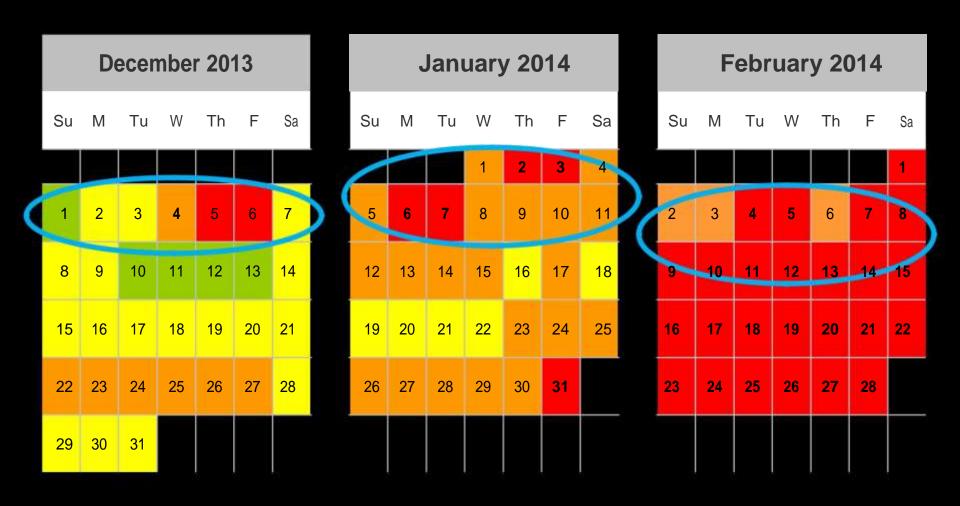




Increasing lead time for effective action



Winter 2013/2014

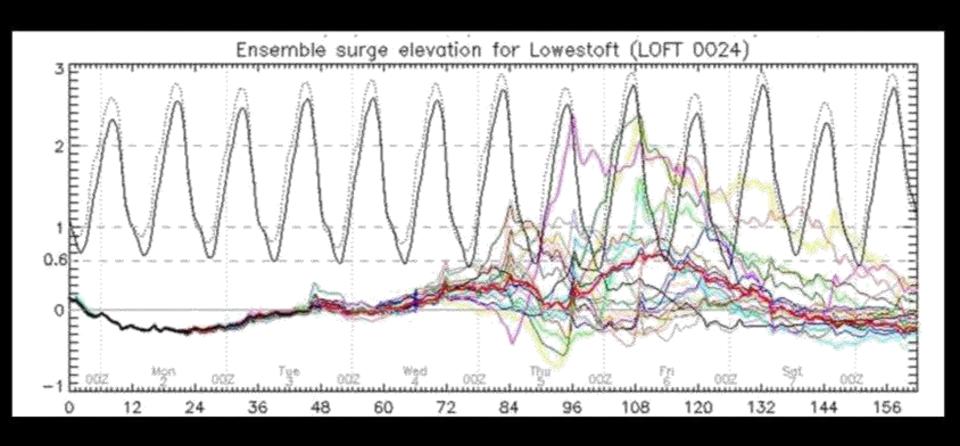


East & west coast surge

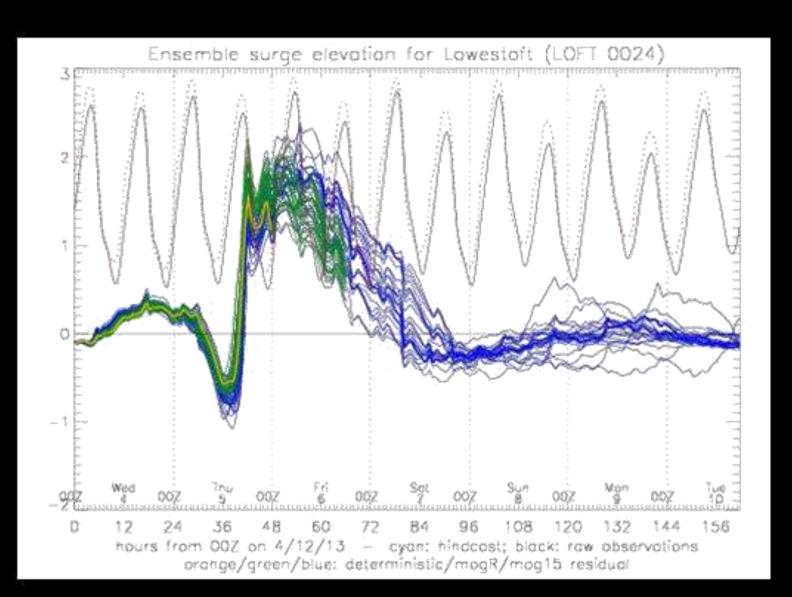
New Year flooding

Somerset Moors & Thames Valley

Lowestoft (-5 day forecast)

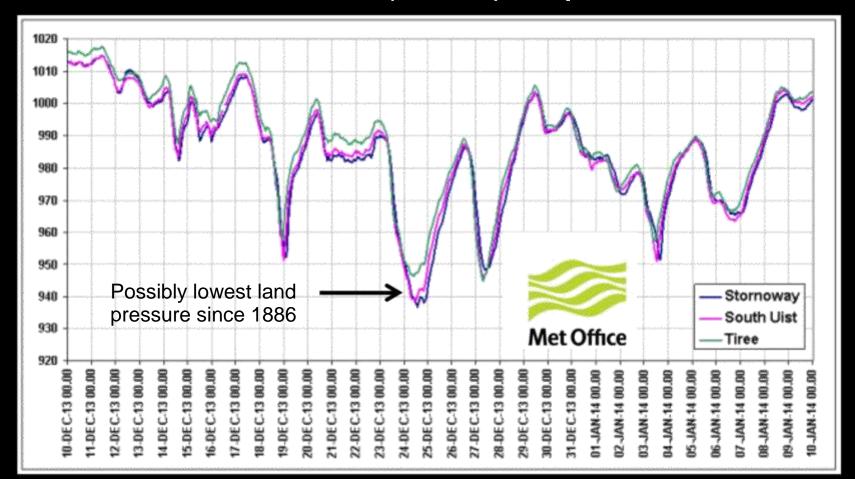


Lowestoft (-2 day forecast)



New Year flooding

- Succession of deep low pressure systems
- River and coastal (W&S) impacts





Porthleven Cornwall

3 January 2014 Surge & waves

> 5 February 2014 Surge, swell & waves



Planned improvements

Resolve showing ongoing and new forecast flood risks

 Work together on forecast impacts ramp down, as well as ramp up

 Share intelligence and leading thinking about what could be next – e.g. groundwater

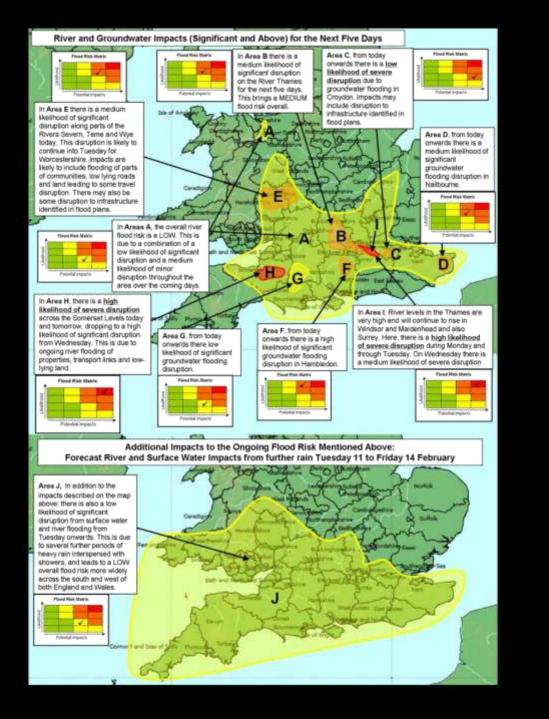
February flooding

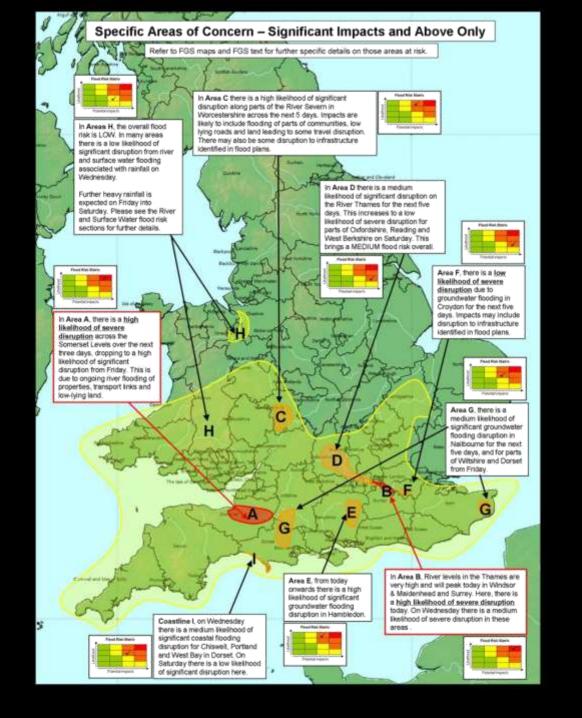
- River, coastal and groundwater flooding
- 4 Feb iconic loss of Dawlish line
- 7 Feb Somerset Levels and Moors = RED
- 9 Feb parts of the Thames = RED
- North/south divide











Planned improvements

Embed clear communication of complex situations

 Consider concurrent risks 3 Ambers = RED?





Flood and Coastal Erosion Risk Management Stakeholder Forum

Thursday 8 May 2014



Winter floods: next steps + follow-up

Dan Osgood, Defra

Alison Baptiste, EA

Lessons learned



- Great work done by professional and volunteer responders across the country. Fully recognised by government
- However after any incident we look at how we can improve in future
- No Pitt-style external review
- Instead lessons learned work is being overseen by the new Cabinet Committee on flooding – chaired by the Prime Minister

Understanding / forecasting



Areas for follow-up include:

Groundwater flood risk

Medium-range flood forecasting

Economic impacts of this winter's floods, including on farming sector

Preventive action



- Urgent priority: repair damaged defences
- Somerset Action Plan

- Greater transparency, partnerships on EA asset maintenance (NB: £35m extra in 14/15 and 15/16)
- Strengthen evidence base on flood risk and planning regime
- Make it easier for local communities to play a greater role
- Reduce bureaucracy around Partnership Funding; update valuation of farmland

Infrastructure / economy



- Some reviews already published (e.g. Gatwick, Xmas electricity supply)
- DfT reviewing transport sector resilience to extreme weather
- Increasing focus on infrastructure interdependencies
- Will be publishing guidance on local economic impacts (growth, jobs etc) to help assess possible new flood defence schemes
- How incentivise greater private contributions towards flood risk management?

Incident management / response



Our ability to give flood warnings is much improved. But we've seen behaviour which put lives in danger, such as driving through deep floodwater or watching coastal surges from the seafront. Take-up for EA's flood warning service is slowly declining, however the use of twitter and social media is rapidly increasing.

- How increase warning take-up + response?
- How reduce risky behaviour?
- Ongoing improvements to HMG response to all incidents (not just flooding)

Recovery



Focus is still on supporting communities in recovery.
 Various grant schemes including for different sectors, £5k
 "Repair & Renew" grant for households / business

In due course, will need to consider lessons

CLG already reviewing Bellwin rules

Seal Sands at Teeside









Chesil Beach, Dorset







Burringham, North Lincolnshire



Rye Harbour, East Sussex



A word or two from Sally Sudworth ...





How can you help?



Split into syndicate groups looking at:

- **A. Understanding / forecasting / preventive actions:** Can further improvements be made? What should our priorities be?
- **B. Infrastructure / economy**: What more can be done to make infrastructure more resilient? How can we strengthen (and explain) our contribution to wider economic growth? How attract more private sector investment?
- **C. Incident management and response**: Is there more we can do to improve this? What should our priorities be? How do we enable the "right" behaviours?
- **D. Recovery:** what lessons should we be learning for the future?





Flood and Coastal Erosion Risk Management Stakeholder Forum

Thursday 8 May 2014

Scoping a potential new national flood risk assessment – 'ABC1'

Hannah Mitchell & Mike Steel Flood and Coastal Risk Management Senior Advisors 8th May 2014

Background to 'ABC1'

- A potential new flood risk assessment
- Starting with a blank sheet hence 'ABC1'
- Phase A engagement within Environment Agency Flood & Coastal Risk Management
- Information for flood risk management activities and decisions – what must, should, could or won't we have?
- Trying to quantify benefits



73

Phase B (April to July 2014)

- Understanding the various needs for flood risk information
- Listening to professional partners, people and communities, and other stakeholders
- What decisions do you need to make about managing flooding and its consequences?
- What flood risk information is most important to you?



Break out session: Introduction

- What flood risk information is most important to you?
- Thinking beyond the current flood risk information available, what would you like to know about flood risk and why?
- How would it help you make better decisions about flooding and its consequences?
- What do you expect? What do you want?



75

First exercise:

- Take 10 minutes thinking about what flood risk information you <u>expect</u> to see? (use post it notes provided)
- Include the following:
 - Information you expect to see in a new 'ABC1'
 - Why the information is needed
 - What are the benefits can these be quantified? Your name and organisation



76

Second exercise:

- Take 10 minutes thinking about what flood risk information you want to see? (use post it notes provided)
- Include the following:
 - Information you expect to see in a new 'ABC1'
 - Why the information is needed
 - What are the benefits can these be quantified? Your name and organisation



Examples:

- All sources of flooding
- Depth of flooding at individual property level
- Information about individual assets
- Duration of flooding would this help manage agricultural or public health impacts of flooding?
- Denefits in terms of saving time or money, or greater effectiveness – any examples?



Summary - what happens next:

- We collate ideas from your tables
- Please send any further ideas you have
- Possible telephone interviews to follow up ideas and benefits
- Findings from Phases A & B will make up a scoping report
- We'll also review our data and IT status, and then hope to write a business case for ABC1.







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Thursday 8 May 2014



Sustainable Drainage Systems

Presented by: Lynn Fardon

Aim

- Policy Context
- SuDS
- Flood and Water Management Act
- Update on actions so far
- Next steps

Flooding



SuDS

- Pitt concluded SuDS were an effective way to reduce the risk of 'flash-flooding'
- Multiple benefits
- Can be cheaper than more traditional drainage solutions

So what's the problem?

 Why are SuDS (often) the exception and not the rule?

What is the current situation?

 Proposals to increase the uptake of SuDS were included in Schedule 3 of The Flood and Water Management Act 2010.

SuDS Governance & Advice

SuDS Implementation Preparedness Board

Representatives from: LAs, LGA, DCLG, Developers, Industry

Ownership of outcomes, strategic overview

Fortnightly meetings
Defra
secretariat





SuDS Steering Group

Representatives from: LAs, LGA, DCLG, Developers, Industry

Ownership of outputs, technical focus

Quarterly meetings Defra secretariat

Contribution to outputs











Adhoc meetings

Guidance Task and Finish Group Standards Task and Finish Group

Charging Task and Finish Group

Bonds Task and Finish Group

Issues arising

Department for Environment, Food & Hural Affairs

Internal processes

- Impact Assessment
- Gateway clearance
- Final Ministerial clearance of legislation
- Cabinet Committee write-round
- Legislation laid
- Legislation debated
- Legislation comes in to force

What we are delivering

- Ministerial National Standards
- Capacity building workshops
- FAQs for the policy
- Guidance Standards, process, charging
- Online E-learning support tool
- Appeals process with PINS
- Applications through the planning portal
- Funding and support for SABs

Next Steps

- Collaborative working
- Statutory Instruments
- Finalise Ministerial National Standards
- Finalise the guidance
- Working with the Planning Portal and PINS
- Consultation on charging
- Assurance this will work well alongside planning and development
- Proposed phasing



Finally

SUDS@defra.gsi.gov.uk





Flood and Coastal Erosion Risk Management Stakeholder Forum

Thursday 8 May 2014



Stakeholder Forum Flood Insurance Update

Policy aim for future arrangements of flood insurance

- 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
- Flood Re will be part funded by a levy, which replicates existing cross-subsidy
- Government envisages this transition taking place over the next 20-25 years.

Who's in and who's out of Flood Re

- All domestic policies at very high risk of flooding will be eligible but only 1-2% will need to be in Flood Re, and with some exceptions:
 - Band H
 - Properties built after 2009
 - Some leasehold properties
 - Landlords
- Much interest in small businesses, but no evidence of market failure. (covered by Statement of Principles)
- Transitional measure eligibility thresholds reviewed on a regular basis. Benefits to be targeted at those least able to pay

Flood Re: Accountability

- Flood Re will be regulated by the Prudential Regulation Authority (PRA).
- Flood Re will be operationally independent, in line with the insurance industry's aim.
- Novel implication for accountability and scrutiny arrangements
- Ministers will be accountable to Parliament concerning general policy matters relating to flood insurance
- As an industry-owned and managed entity, Flood Re itself will also be accountable to Parliament.

Flood Re: Implementation

- Public commitment to deliver Flood Re by the summer of 2015
- Delivery of Flood Re is currently shared between Government and the ABI.
- Defra's main deliverables for the implementation stage are:
 - Secondary legislation
 - Delivering Council Tax data
 - State Aid approval
- ABI are leading on PRA authorisation for Flood Re and setting up the organisation to delivery the scheme

Flood Insurance: How we got to where we are now (Timeline)

- MoU agreed with industry (June 13)
- Flood Insurance consultation (June August 13)
- Flood Summit (July 13)
- Short consultation on Flood Insurance clauses (September 13)
- Government response to the consultation (November 13)
- Water Bill House of Commons Stages (November 13 – January 14)
- Water Bill House of Lords Stages (January – April 14)
- State Aid pre-notification to European Commission (March 14)

Flood Insurance: Remaining milestones

- Drafting of Secondary Legislation Statutory Instruments (April – June 14)
- Royal Assent (May 14)
- Secondary Legislation consultation (July September 14)
- PRA Application submitted (August 14)
- Articles & Scheme rules completed (October 14)
- Designation and laying of secondary legislation (Autumn 14)
- State Aid Approval (Jan 15)
- Flood Re Operational (April 15)
- Launch Awareness Campaign (April 15)
- Secondary Legislation into force (April 15)
- Flood Re Go Live (July 15)

Flood Insurance

Questions?





Flood and Coastal Erosion Risk Management Stakeholder Forum

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Flood Risk Management Plans under the Floods Risk Regulations

Sue Reed (Environment Agency) and Roger Orpin (Defra)

8 May 2014

The Legal Driver for FRMPs

Preliminary Flood

Risk Assessments

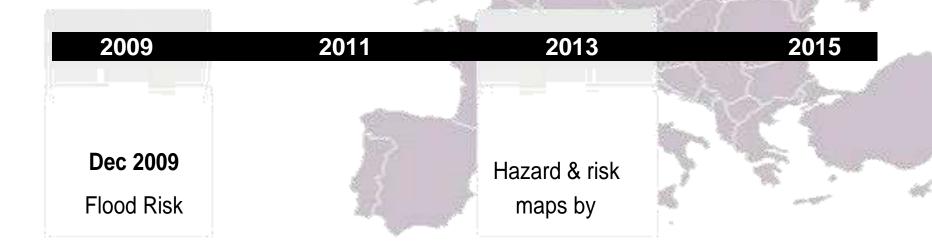
published by

Dec 2011

Flood Risk

Management

Plans by Dec 2015



Regulations

Dec 2013









Flood Risk Management Planning:

- Consultation on the approach to FRMPs: Aug Oct 2012
- The proposed approach to FRMPs: June 2013
- Initial FRMP Guidance 'Living Draft': August 2013
- FRMP Guidance published: May 2014









The approach to FRMPs

PLUS Flooding from sewers

from: DAPs, Drainage Strategies Flooding from Local Sources

from: Local FRM
Strategies, SWMPs etc
Flood Risk Areas

PLUS

Flooding from local sources:

Outside Flood Risk Areas

Flooding from Main Rivers

from: CFMPs, Strategies etc Flooding from the Sea

from: SMPs, Estuary Strategies etc

Flooding from Reservoirs

from: reservoir safety plans etc

PLUS

Coastal Erosion Risk

from: SMPs, Estuary
Strategies etc





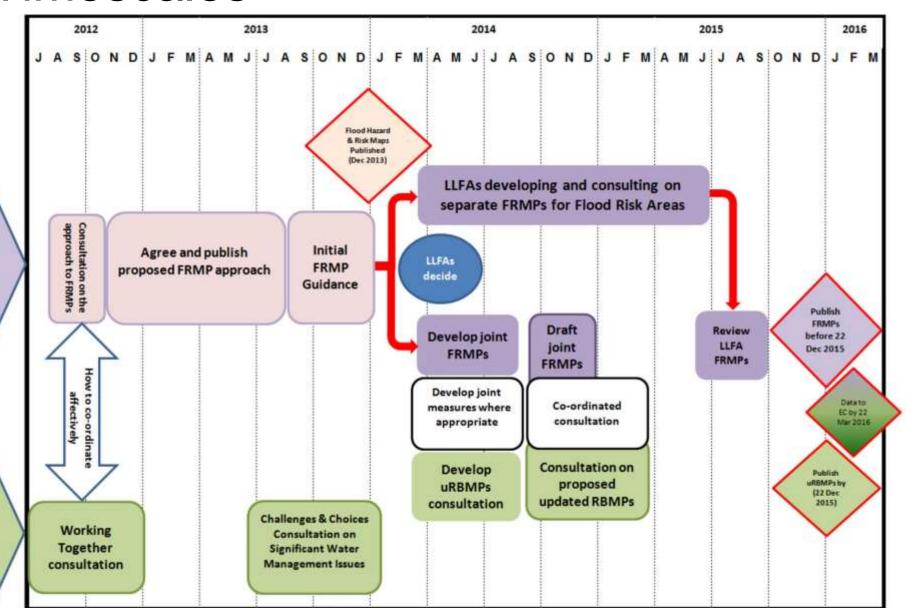




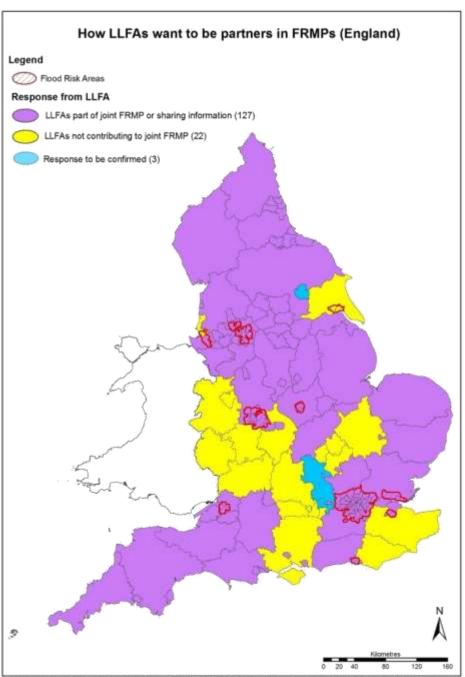
Timescales

FRMPs

RBMPs



Partnership FRMPs











The benefits of a partnership FRMP:

- All sources in one place: easier for the public to appreciate the whole story
- RMAs can share information effectively: interactions and overlaps across different sources of risk, greater consistency
- RMAs can monitor and report efficiently: using the database allows RMAs to report across any boundary and collate information efficiently.







The Vision? Round 2 (2016 to 2021) and beyond.....

- Include all LLFAs not just those in Flood Risk Areas?
- Include all sources of flood risk (and coastal erosion risk)?
- Integrated FCERM planning rather than the current plethora of plans/assessments/strategies?
- Integrated River Basin Planning with closer links to River Basin Management Planning?
- All RMAs much more involved?









Your views??











Flood and Coastal Erosion Risk Management Stakeholder Forum

Thursday 8 May 2014



Flood and Coastal Erosion Resilience Partnership Funding

Findings from independent evaluation.

Presented by: Celia McNally

Date: 8th May 2014

celia.mcnally@defra.gsi.gov.uk

"The Government should develop a scheme which allows and encourages local communities to invest in flood risk management measures"

Pitt Review: Recommendation 24

- Sets out the grant a project will be offered based on the flood benefits and outcomes it will deliver.
- Launch 2011: 1st allocation 2012/13
- Objectives
 - Encourage total investment to increase
 - Enable more local choice and encourage innovation
 - Increasing levels of certainty and transparency

This presentation...

- Drivers for the evaluation
- The evaluation process
- Evidence gathered.
- Emerging conclusions.
- Draft recommendations.
- Next steps.



Objectives of the research.

- Is the policy is meeting its objectives?
- Could it work better?

Scope



- Numerical analysis of the outputs to date
- Evidence to inform the future approach.
- Identify changes in the make up the programme.
- Understand the behaviours and attitudes approach is generating

OM Score % = <u>£ FDGiA</u> Project costs

Evidence and analysis

- Challenges in gathering
 - Early days
 - New players
 - New roles and responsibilities

Sources

- Policy and processes for allocating funding
- Investment plans before and after launch
- Interviews and workshops with over 160 practitioners from across the board.
- Review of individual business cases.



Overall investment is increasing.

- 36% in 12/13, 71% in 13/14 of NEW projects have some level of PF
- £114m anticipated contributions for NEW projects in first 2 yrs of the policy
- Up to £148m from ALL projects with PF by 2015

Currently 25% directly from private sources
 75% via public bodies

including CIL, s106

More projects being funded

- Approximately 25% more projects
- Projects not eligible for funding (for a long time)
- Contributions to projects above the 100% will release funding for other projects





Local choice and value

- Cockermouth
- Warrington
- Grant in aid clearer
- Early involvement
- Shared objectives
- Shared communications and information
- Behaviours of communities

Key recommendations

- Retain formula and payment rates
- Raise awareness
 - governments departments
 - national infrastructure organisations
- Share experience/knowledge transfer
 - Support capacity building and case studies
 - Pooling resources and experience
- Monitoring that will capture data consistently
 - Understanding origins s106, CIL, rates
 - Private and Contributions in kind



Suggestions related to appraisal and allocation processes

- Multi-year investment plan : certainty/transparency
- Get Local FRM Strategies in place
- Review the 'process burden'
- Manage expectations about funds available
- Share learning
 - http://learning.environment-agency.gov.uk/capacitybuilding/
- Review guidance

- Publication
 - Defra R&D website (http://randd.defra.gov.uk/)
 - FD2663
- Acknowledgements
 - All those who provided evidence and advice
 - EA and LGA
 - The project board
- Next steps
 - Assessment of recommendation
 - Shared learning
 - 6 year programme







Flood and Coastal Erosion Risk Management Stakeholder Forum

Thursday 8 May 2014